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Integration of Regional Value Chains: Targeting and Positioning Strategies for African Continental Free Trade Area - An Algerian Perspective

Bölgesel Değer Zincirlerinin Entegrasyonu: Afrika Kıtasal Serbest Ticaret Bölgesi için Hedefleme ve Konumlandırma Stratejileri – Cezayir Perspektifi

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ÖZET

Cezayir'in bölgesel değer zincirlerine entegrasyonu, küresel ekonomideki hızlı değişim karşısında büyümeyi desteklemek ve rekabet gücünü artırmak için önemli bir fırsat sunmaktadır. Bu makale, AfCFTA (Afrika Kıtasal Serbest Ticaret Bölgesi) çerçevesinde Cezayir'in sosyo-ekonomik beklentilerini incelemekte; fırsatlar, riskler, temel başarı faktörleri ve karşılaştırmalı üstünlükler üzerinde durmaktadır. Ayrıca diğer Afrika ülkeleriyle karşılaştırmalı bir analiz yapılmakta ve entegrasyonun zorlukları ile sürdürülebilirliği tartışılmaktadır. Çalışma, Cezayir'in bölgesel değer zincirlerine daha etkili bir şekilde katılabilmesi için uygulanabilecek hedefleme ve konumlandırma stratejilerini de ortaya koymaktadır. Bölgesel entegrasyon ilerleme kaydetse de, değer zincirlerine katılım çoğunlukla düşük katma değerli aşamalarla sınırlı kalmaktadır. Bununla birlikte, küresel değer zincirleri gelişmekte olan ekonomilerin dünya ticaretine bağlanması ve KOBİ'lerin ihracat kapasitelerini artırması için önemli bir araçtır.

Keywords:

Integration,

Regional Value Chains,

Strategic,

Opportunity,

Algeria,

ABSTRACT

Algeria's integration into regional value chains offers an important opportunity to boost growth and competitiveness in a changing global economy. This article examines Algeria's prospects within the AfCFTA (African Continental Free Trade Area), focusing on opportunities, risks, key success factors, and comparative advantages. A regional comparison with other African countries is provided, along with a discussion on the challenges and sustainability of such integration. The study also highlights strategies that can help Algeria position itself more effectively in regional value chains to support sustainable and inclusive development. While progress in regional integration is visible, successful cases of participation in value chains remain limited, often restricted to low value-added stages. Yet, global value chains can play a key role in connecting developing economies to world markets and in helping SMEs expand their export capacity.

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1. INTRODUCTION

Since the 1990s, global trade has experienced significant acceleration. Advances in communication and transportation technologies, along with economic liberalization, have been the main drivers of this acceleration. This evolution has led to increased competition, reduced margins, and has pushed companies to reorganize their structures. Many companies have opted for geographic expansion strategies such as offshoring and outsourcing to seize growth opportunities and gain competitive advantages (Kherrazi, 2015). Thus, Global Value Chains (GVCs) emerged, covering all activities from the design of a product or service to its final use (De Backer and Miroudot, 2013). This reconfiguration of global trade is sometimes referred to as "*deglobalization*" (Science Po, 2023), marking a trend towards fragmentation and regionalization of international trade (Djeflat, 2024; Ferdj, 2024a). This dynamic promotes the development of regionalized trade and regional value chains. In Africa, regional integration has primarily developed within regional economic communities and at the sub-regional level, progressing at uneven but accelerated rates, especially after the Covid-19 pandemic (OECD, 2022). Trade between countries is based on the principle of "*most favored nation*" treatment (CNESE, 2023). The implementation of the African Continental Free Trade Area (AfCFTA) is a key driver for the development of intra-African trade, thereby facilitating regional and continental integration.

The African Continental Free Trade Area (AfCFTA) will cover a market of 1.3 billion people, expected to reach 2.5 to 3 billion by 2050, with a Gross Domestic Product (GDP) of $2.5 trillion for all 55-member states of the African Union. It will become the largest free trade area in the world since the establishment of the World Trade Organization (WTO). Its objective is to intensify intra-African trade by creating a single market for goods and services, thereby strengthening the economic integration of the African continent in line with the Pan-African vision of an "*integrated and prosperous Africa*" outlined in Agenda 2063 (CNESE, 2023).

The ratification of the convention regarding Algeria's accession to the AfCFTA in May 2021 will have a significant impact on Algeria's foreign trade and intra-African exchanges by promoting South-South cooperation. According to experts, the AfCFTA agreement is a new generation trade agreement, as it not only focuses on tariff reductions or exemptions but also includes provisions on competition, trade in services, investment, intellectual property rights, and e-commerce. Intra-regional exports by African businesses are 4.5 times more diversified than their exports outside of Africa (OECD, 2019).

The rise of regionalism at the global level underscores the need to strengthen intra-African integration (OECD, 2022). The relative failure of WTO agreements, deglobalization, and the difficulty for some countries, such as Algeria, to access the WTO, highlight the importance of developing trade agreements between smaller geographical blocs. In this context, continental coordination among African countries is essential. According to the OECD (2022), the AfCFTA can contribute to the growth of regional value chains by reducing intra-African trade costs, overcoming investment barriers, and improving competitiveness. It is crucial to note that African value chains represent only 2.7% of global value chains, a very low figure compared to the 43% of value chains in developing Asia (OECD, 2022). This situation offers a significant opportunity for African countries to increase their market share in the global network. Leveraging regional complementarities will optimize the comparative advantages of African countries, as regional markets are catalysts for the development of production capacities (Ferdj, 2024b). To achieve this, it is essential to develop high-quality basic infrastructure and enhance the added value of raw materials (Djeflat, 2024).

It is necessary to move from the classic export model to Africa towards a new order focused on sustainability and mutual wealth creation for inclusive development of the African continent. This raises important questions: What is the potential of the semi-finished goods industry? Which regional value chains offer opportunities for sustainable investment in Africa?

This study aims to examine the socio-economic prospects of Algeria within the framework of the agreement's implementation, in order to better understand its mechanisms and impact on Algeria's foreign trade. The overall objective is to determine the main strategic directions by identifying the threats, opportunities, key success factors, and comparative advantages of Algeria, as well as the actions to be taken in the short and medium term, considering the strengths and weaknesses of the national economic fabric (Ferdj and Djeflat, 2024). The first section introduces the phenomenon and concept of global value chains. The second section explores the opportunities and risks of integrating these chains into the Algerian economy, taking into account its strengths and limitations. This analysis will include a regional comparison with other African countries. Finally, in the

third part, we will briefly address the risks related to integration and how to ensure sustainable maintenance in regional value chains.

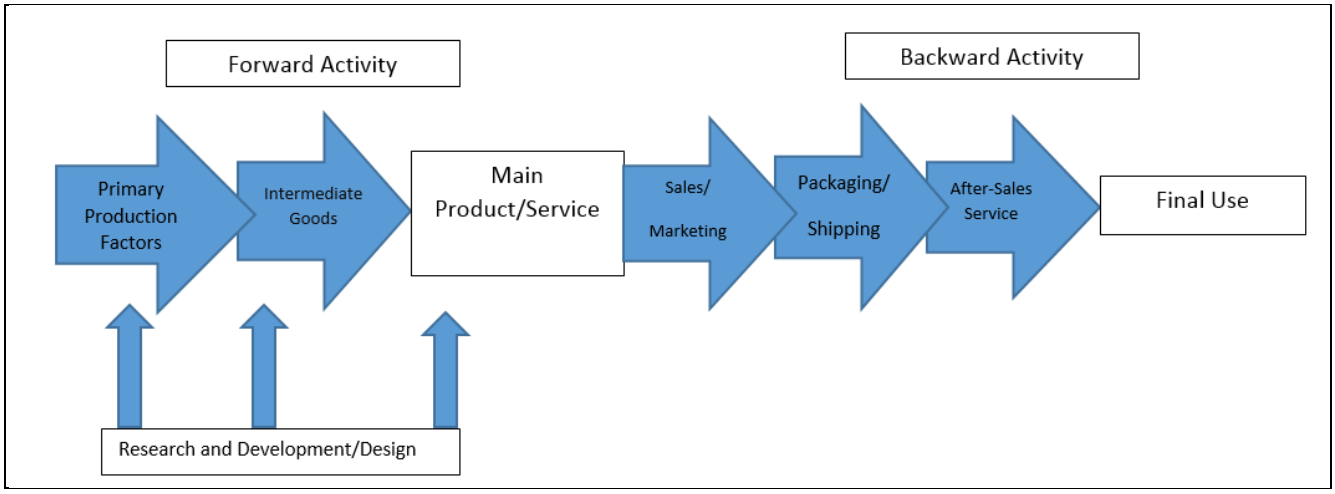
2. GLOBAL VALUE CHAIN: THEORETICAL AND CONCEPTUAL FRAMEWORK

Globalization has profoundly transformed the production of goods and services, extending far beyond national borders. Trade, once confined within national borders, is now organized through production networks that span multiple countries, even across the globe. These networks, known as Global Value Chains (GVCs), result from companies leveraging technological advancements and regulations to optimize their sourcing strategies by geographically distributing production activities. GVCs offer new possibilities for structural transformation in Africa (Djeflat, 2014), where countries can integrate into these chains, often focusing on assembly in the manufacturing sector and raw material production in agriculture. Ideally, this strategy allows for upgrading through knowledge transfer, product differentiation, and achieving new stages in the value chain (Baldwin and Martin, 1999; Baldwin, 2006; Baldwin, 2011). Measuring trade in value-added terms, as opposed to traditional gross measures, can provide insight into the degree of integration into GVCs and their potential benefits.

Currently, Africa contributes only a modest share of global trade measured in value-added terms but is relatively well integrated into GVCs compared to other regions, primarily due to its role in supplying raw materials exported to other regions for processing (Ferdj, 2024a). However, the share of value-added generated in Africa remains very low. Regarding the benefits of GVCs, they have more often favored export growth and productivity than job creation. Success depends on a country's ability to meet external demand, as well as the nature of the value chain and the leading company (Baldwin, 2011).

The value chain describes the division of the production process into various stages, ranging from purely productive activities to the creation of added value, including design, intermediate stages of the production plan, execution, and delivery of the product as a final good or service (Baldwin and Martin, 1999; Baldwin, 2006). This concept is related to value chain analysis, a method that identifies opportunities for cost reduction and product differentiation at different stages of the production and delivery process (Gereffi and Fernandez-Stark, 2011; De Backer and Miroudot, 2013). A value chain becomes a Global Value Chain (GVC) when companies from different countries, often spread beyond a single region, establish contractual relationships for the processes and tasks involved. In a GVC, companies from various countries participate in an integrated production system, thus forming a supply chain for the manufacture and provision of goods and services (De Backer and Miroudot, 2013). These companies are interconnected at each stage, where one imports raw materials to produce items destined for export to another participant in the chain, located in another region or country. This "*import for export*" process goes beyond simple commercial transactions between the involved companies. It also includes the sharing of action plans and management practices, thereby facilitating the continuous transfer of new ideas knowledge and expertise from one region or country to another (De Backer and Miroudot, 2013).

Figure 1. Stages of a Generic Value Chain



Source: Global Value Chains and Africa's Industrialization, African Economic Outlook 2014, African Development Bank, OECD, UNDP 2014.

Global value chains present ever-expanding opportunities. The evolution of trade in goods has synchronized with technological advancements in their production. Adherence to the standards established by companies and integration into certain global value chains can enhance capabilities, foster employment, and influence the social structures of African countries (OECD, 2022). A country's position within a chain and its ability to increase its participation is crucial for its success, as is the availability of suitable services, effective governance, innovative entrepreneurs, and adherence to the chain's specific rules (Djfelat and Lundvall, 2016).

Advances in transportation and communication technologies have significantly extended global value chains. The large-scale international trade of goods took off in the 19th century with the advent of modern transportation methods. Before the emergence of fast transport for large volumes by train, steamship, or truck, each city or region generally had to produce most of the goods it consumed. From the mid-19th century onwards, transport allowed for the exchange of massive volumes, prompting cities, regions, and even countries to adopt a division of labor. They specialized in producing the goods they were able to consume and sell, while purchasing other goods from other regions. With decreasing transportation costs, trade continued to grow significantly (OECD, 2022).

The concept of global value chains dates back to the 1960s, much earlier than commonly thought. Jaroslav Vanek (1971) is recognized as the first economist to discuss it, and since then, the concept has been widely explored in economic research. The works of Richard Baldwin (2006), professor of international economics at the Graduate Institute of International and Development Studies, have notably highlighted the concept of decoupling to better understand the fragmentation of global value chains in recent decades. This decoupling has manifested in two ways: first, between production and consumption, meaning that goods are no longer necessarily produced where they are consumed; second, between goods and services, indicating that not only are goods fragmented across the world, but also various internal functions of companies are outsourced, and services are traded (Baldwin, 2011).

This decoupling between goods and services aligns with Michael Porter's (1996) analysis of business functions and those of Gene Grossman and Esteban Rossi-Hanberg (2008) on the trade of tasks. The OECD, in its work with the WTO on trade in value-added, refers to Gary Gereffi's (2011) definition, which states that a value chain encompasses all the activities of a company, from the design of a product to its final use, including activities such as design, production, marketing, distribution, and customer service, which can be carried out by a single company or spread across multiple companies (Gereffi, 2011).

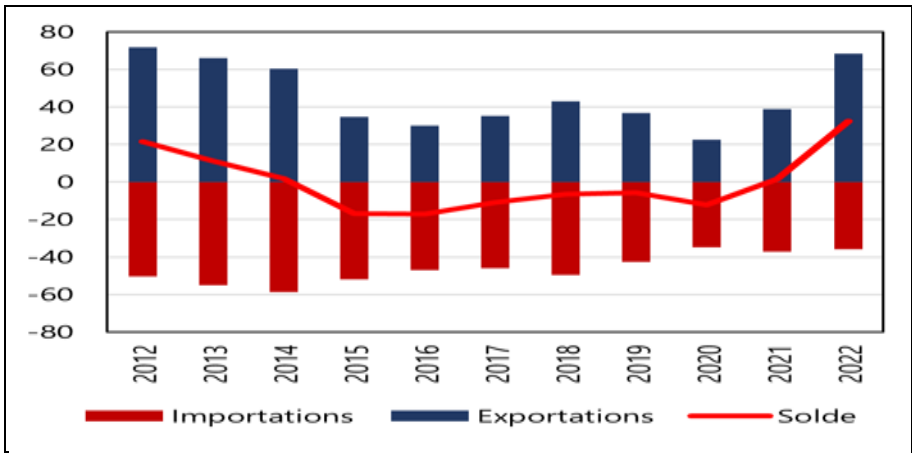
3. IMPLICATIONS AND BENEFITS OF INTEGRATION INTO GLOBAL VALUE CHAINS FOR ALGERIA'S ECONOMY

In 2022, Algeria's foreign trade readched USD 104.2 billion, representing a 37% increase compared to the previous year. This growth in Algerian trade is largely attributed to fluctuations in hydrocarbon prices. Algerian exports reached USD 68.4 billion in 2022, up 76.4% from the previous year. This increase is mainly due to the rise in hydrocarbon prices, which accounted for 89.8% of the country’s total exports, including 41% from natural gas, 30.3% from crude oil, and 15.4% from fuels. Other exports include derivatives from the petroleum and gas industries as well as agricultural products such as dates and sugar. In 2022, France was Algeria’s third-largest customer, accounting for 10.5% of total exports, behind Italy (32.3%) and Spain (12%).

3.1. Algeria's Foreign Trade

Algerian imports amounted to USD 35.9 billion in 2022, marking a 3.6% decline compared to 2021. Although imports were diversified, more than one-third was concentrated in four product groups foodstuffs, industrial equipment, plastics, and electrical equipment, revealing a continued reliance on essential and semi-finished goods. The rise in food and plastic imports, contrasted with the decline in industrial and electrical equipment purchases, reflects structural weaknesses in domestic production and limited progress toward industrial upgrading. Algeria’s dependence on a small group of suppliers, notably China (18.6%), France (14%), and Italy (7.7%), also underlines its vulnerability to external shocks and supply chain disruptions. While the trade surplus of USD 32.4 billion in 2022 appears encouraging, it is primarily driven by hydrocarbon exports, raising concerns about the sustainability of external balances in the absence of broader economic diversification.

Figure 2. Evolution of Algeria's Trade (USD Billion)



Source: TradeMap, 2023, https://www.trademap.org/Index.aspx

Algeria's participation in global value chains (GVCs) remains highly limited, as evidenced by trade flows. Between 2015 and 2020, exports were overwhelmingly dominated by energy and lubricants, which, despite a slight decline from 94.4% to 90%, continue to crowd out other sectors. The persistently low share of semi-finished goods and the negligible contribution of equipment exports highlight Algeria's marginal integration into manufacturing-oriented trade. This narrow export structure underscores a structural weakness: GVCs are primarily driven by manufactured and technology-intensive products, yet Algeria's export profile remains locked into primary commodities. Such dependence not only restricts opportunities for value-added participation but also increases vulnerability to fluctuations in global energy markets.

Table 1. Evolution of Algeria's Export Structure by Usage Group (2015–2020, in %) : Evidence of limited diversification

Label	2015	2016	2017	2018	2019	2020
Food, Beverages, Tobacco	0.7	1.1	1	0.9	1.1	2
Energy and Lubricants	94.4	94	94.5	93	92.7	90
Raw Materials	0	0	0	0	0	0.1
Basic Products	0.3	0.2	0.2	0.2	0.2	0.3
Semi-finished Products	4.5	4.4	4	5.6	5.6	7.2
Agricultural Equipment	0	0	0	0	0	0
Industrial Equipment	0.1	0.2	0.2	0.2	0.2	0.4
Consumer Goods	0	0.1	0.1	0.1	0.1	0.2
Total	**100**	**100**	**100**	**100**	**100**	**100**

Source: ONS, Statistical Collections, No: 228/2022.

Algeria's integration into global value chains (GVCs) remains extremely limited. Between 2015 and 2020, exports were overwhelmingly concentrated in energy and lubricants, which, despite a slight decline from 94.4% to 90%, continue to dominate the trade structure. The persistently marginal share of semi-finished products and the near absence of equipment exports illustrate the country's weak participation in manufacturing-based trade. This narrow specialization reflects a structural dependency on hydrocarbons, leaving Algeria largely disconnected from the segments of GVCs that generate higher added value. As GVCs are predominantly driven by manufactured and technology-intensive goods, Algeria's current export profile highlights both its vulnerability to global energy market fluctuations and the urgent need for diversification strategies.

The hydrocarbon sector is undoubtedly the domain in which Algeria is deeply rooted in the global economy. Immediately after independence, this sector received special attention from public authorities, making it a top priority in development programs. However, this integration into global value chains is compromised by a persistent crisis in the industrial sector, marked by frequent changes and reforms that have not been successful. Furthermore, the hydrocarbon sector has had a negative impact on GDP formation during this period, as

indicated in the table below. Moreover, the comparative advantages linked to this sector tend to diminish and become disadvantageous, especially for crude oil. The expected spillover effects of this sector fade in the absence of a strategic and integrated vision of its activities. As for other hydrocarbon products, such as raw materials or those that have undergone initial processing, their integration is more limited (Mahoui and Ferfera, 2017).

Table 2. Structure of Algeria's Merchandise Imports by Utilization Group (in %): Patterns of diversification and dependence

Label	2015	2016	2017	2018	2019	2020
Food, Beverages, Tobacco	18	17.5	18.3	18.5	19.2	23.3
Energy and Lubricants	4.6	3.4	4.3	2.3	3.4	2.7
Raw Materials	2.8	3.1	3.1	3.6	3.6	5
Basic Products	0.2	0.2	0.2	0.5	1.2	1.7
Semi-finished Products	23.3	24.3	23.8	23.7	24.5	21.6
Agricultural Equipment	1.3	1.1	1.3	1.2	1.1	0.8
Industrial Equipment	33	32.7	30.4	29.1	31.6	27.6
Consumer Goods	16.8	17.7	18.5	21.1	15.4	17.4
Total	**100**	**100**	**100**	**100**	**100**	**100**

Source: ONS, Statistical Collections, No:228/2022.

This indicates that to reverse the deficit trend, the focus should be more on exports than on imports. Indeed, the evolution of the import structure, as illustrated in the table above, has been relatively stable, with significant importance given to industrial equipment and semi-finished products, as shown in Table 2.

3.2. Merchandise Exports by Economic Region

Algerian exports remain heavily oriented toward the "North," with 53.9% directed to Europe, 2.5% to North America, and 17.6% to Asia. Although trade with Asia has gradually expanded, exports to North America have fallen by nearly 20%, largely due to the United States' growing shale gas production. This geographic concentration reveals Algeria's dependence on traditional markets and its limited capacity to adapt to shifting global demand. Unlike neighboring countries, Algeria has yet to implement a coherent strategy to diversify its trade partnerships, thereby missing opportunities to strengthen its presence in Africa and Arab markets regions where demand is steadily increasing.

Table 3. Changes in Algeria's Export Structure by Economic Region (in %): Evidence of Market Concentration

Economic Region	2015	2016	2017	2018	2019	2020
European Union	66.3	57.4	57.9	57.4	57.3	53.9
Other European Countries	5.4	4.9	5.5	6.1	6	12
North America	8.2	17.2	11.8	10.4	6.2	2.5
Latin America	4.9	6.6	7.2	6.4	4.6	3.9
Maghreb	4.5	3.9	3.6	4	5.2	6.7
Arab Countries	1.6	1.3	2.2	1.8	2.4	2.3
Africa	0.2	0.2	0.3	0.3	0.3	0.6
Asia	8.7	7.9	10.9	12.9	16.6	17.6
Rest of the World	0.2	0.6	0.5	0.6	1.3	0.6
Total	**100**	**100**	**100**	**100**	**100**	**100**

Source: ONS, Statistical Collections, No:228/2022.

Although non-hydrocarbon exports have grown in recent years, their expansion remains modest compared to the dominance of hydrocarbon exports. This imbalance reflects deeper structural constraints, notably the absence of an effective industrial policy. The weak and declining contribution of the industrial sector to GDP from 6.5% in 2006 to 3.6% in 2016 (Mahoui & Ferfera, 2017), illustrates the erosion of productive capacity and the lack of diversification. Without a coherent strategy to foster industrial development and strengthen value-added sectors, Algeria's export profile will continue to depend disproportionately on hydrocarbons, limiting its integration into global and regional value chains.

Table 4. Evolution of Algeria's Merchandise Exports by Use Group (in Millions of DZD): Evidence of Limited Diversification

Label	2015	2016	2017	2018	2019	2020
Food, Beverages, Tobacco	23 585.50	35 843.80	38 727.80	43 585.30	48 686.50	56 427.80
Energy and Lubricants	3 339 435.10	3 080 035.20	3 714 143.90	4 548 111.30	3 960 984.70	2 560 472.70
Raw Materials	830.8	1 112.20	1 757.10	2 051	1 754	1 979.30
Basic Products	9 771.40	8 126.10	6 344.58	8 722.40	9 700.50	7 351.80
Semi-finished Products	160 421.40	144 627.90	156 415.27	272 369.40	235 603.50	203 652.40
Agricultural Equipment	51.4	6.2	31.74	35.6	119.4	178.5
Industrial Equipment	1 940.50	5 930.80	8 619.33	10 507	10 360.10	10 955
Consumer Goods	1 150.60	2 034.20	2 255.93	3 896.60	4 440	5 353.90
Total	**100**	**100**	**100**	**100**	**100**	**100**

Source : ONS, Collections Statistiques, No:228/2022.

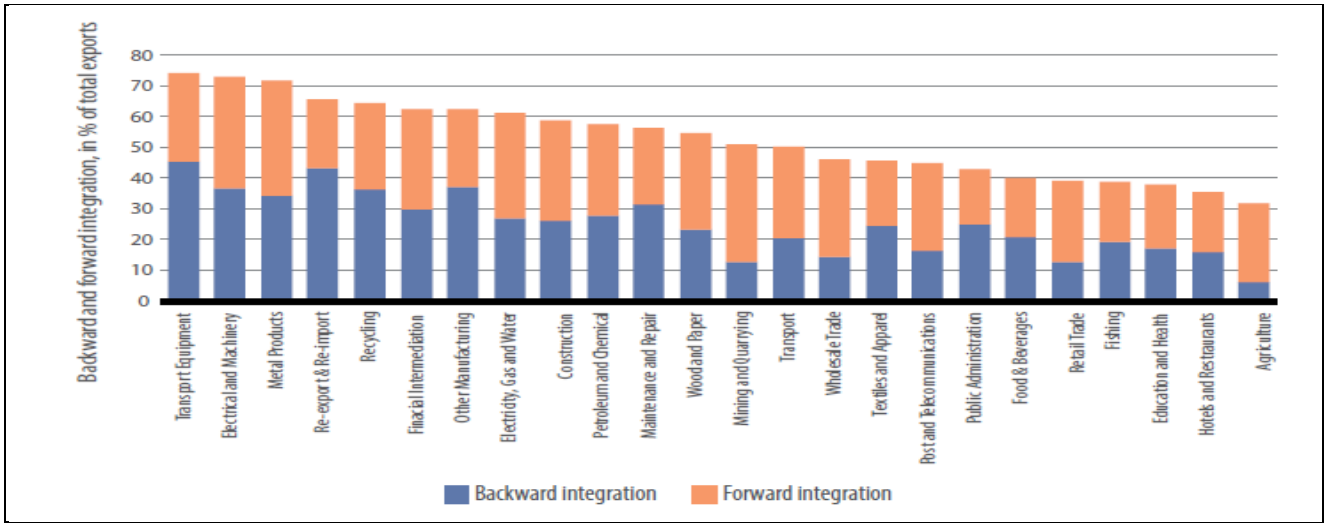
The evolution of merchandise exports by use group between 2015 and 2020 highlights uneven and fragile patterns in Algeria's non-hydrocarbon export potential. While the food, beverages, and tobacco sector recorded a fivefold increase, driven largely by processed products, this growth remains narrowly concentrated and insufficient to signal a broader transformation of the export structure. Semi-finished products also rose in volume during the last year, yet their contribution remains modest in relative terms. By contrast, exports of industrial equipment and consumer goods, which are crucial for deeper integration into global value chains, showed only limited progress. This imbalance underscores the lack of a coherent export diversification strategy and the difficulty of building competitive industrial capacities beyond hydrocarbons.

4. POINTS OF COMPARISON IN INTEGRATION INTO REGIONAL AND GLOBAL VALUE CHAINS

As illustrated in the graph below, African countries stand out due to their significant involvement in global value chains, primarily in the downstream production of raw materials. However, these contributions remain relatively modest, representing only 2.2% of global trade in value-added.

According to the United Nations Economic Commission for Africa (UNECA) Report (2015), at the sectoral level, the manufacture of transport equipment emerges as the most integrated sector in global value chains, as shown in the graph. This situation can be attributed to the presence of major automobile manufacturers in Morocco and South Africa (AfDB, OECD, and UNDP, 2014). Toyota is the largest vehicle producer in South Africa (UNCTAD, 2010).

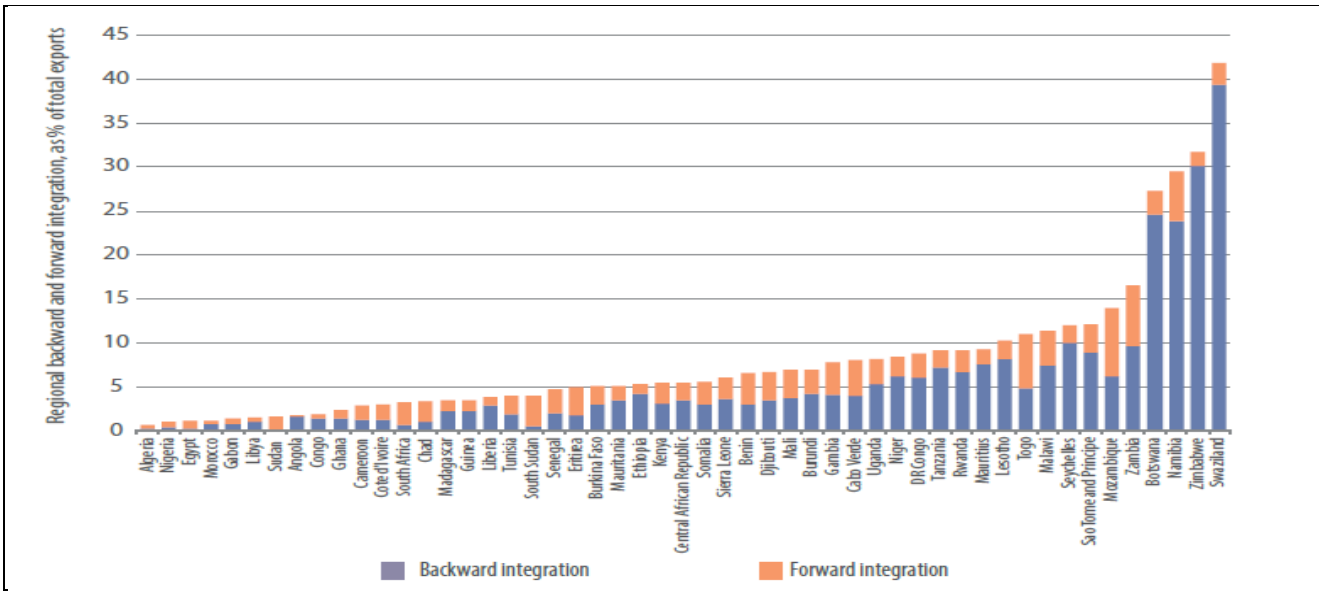
Figure 3. Sector Participation in Global Value Chains, Upstream and Downstream Integration



Source: Taken from the Economic Report on Africa 2015: Industrialization through Trade, by the United Nations Economic Commission for Africa, p.101.

A regional analysis of the participation of African countries in regional value chains reveals that Algeria generally ranks last in most of these sectors. In absolute terms, Algeria, along with Angola, Egypt, Nigeria, and South Africa, is one of the main drivers of regional trade in value-added terms. However, these countries import relatively little value-added from other African countries. In contrast, countries such as Swaziland, Zimbabwe, Namibia, Botswana, and Zambia, although contributing little in absolute terms to value-added trade, exhibit strong upstream integration in their total exports to the region, according to the report.

Figure 4. Country Participation in Regional Value Chains, Upstream and Downstream Integration



Source: Taken from the Economic Report on Africa 2015: Industrialization through Trade, by the United Nations Economic Commission for Africa, p.101.

However, based on the criterion of Revealed Comparative Advantage (RCA), Algeria stands out as the African country with the greatest comparative advantage in the field of fuels. Compared to its North African neighbors, it shows the lowest RCA index in basic food products, manufactured goods, and machinery and transport equipment, as shown in the following table.

Table 5. Revealed Comparative Advantage (RCA) Indices of North African Countries: Evidence of sectoral specialization

Product	Basic Food Products	Beverages and Tobacco	Ores, Metals, Precious Stones, and Non-monetary Gold	Fuels	Manufactured Goods	Chemical Products	Machinery and Transport Equipment
Libya	0,08	0,03	0,2	7,25	0,43	2,21	0,03
Tunisia	20,3	20,4	0,44	0,13	0,73	1,45	0,37
Morocco	2,32	1,16	0,88	0,17	0,7	1,05	0,42
Egypt	0,83	0,27	0,87	1,31	0,92	0,92	0,25
Algeria	0,07	1,42	1,15	72,63	0,12	0,25	0,01

Source: Extrait du Rapport CEA, UA & BAD (2012), État de L'intégration Régionale en Afrique V: Vers Une Zone de Libre-Echange Continentale Africaine, pp. 129-130.

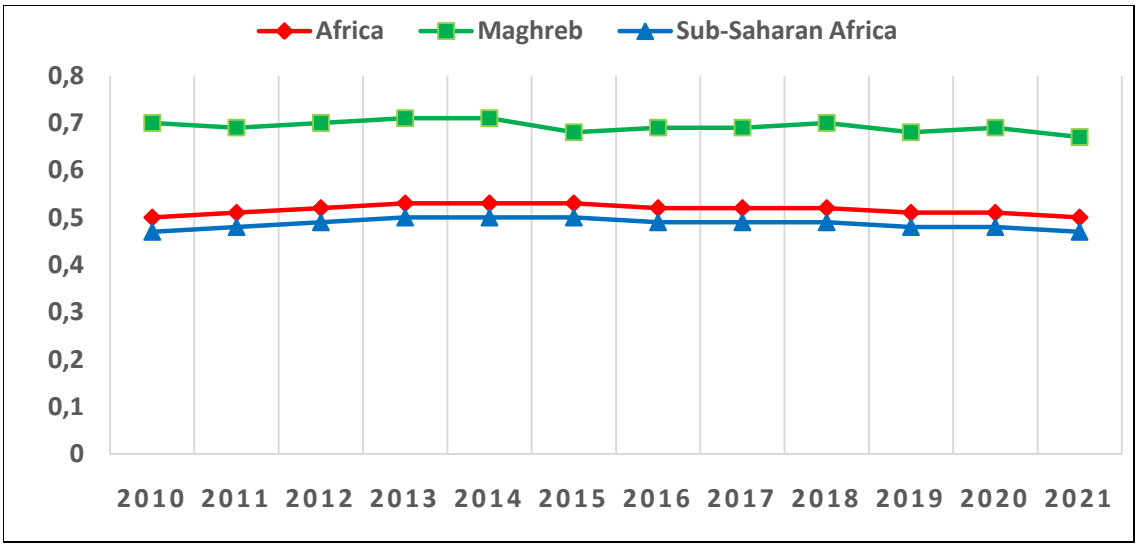
Another level of regional comparison can be identified by looking north this time. This comparison will confirm previous results regarding the strong upstream integration of African countries, particularly concerning raw material exports. It will also highlight the importance of not limiting the analysis to the closest neighbors. The possibilities for Algeria's integration must also be evaluated on a global scale (Ferdj, 2024b).

5. THE DEVELOPMENT OF INTRA-AFRICAN TRADE

Industrial develeopment in most African countries has generally progressed at at a relatively slow pace, as indicated by the average trend observed on the continent (represented by the red curve, figure 5). However, it is important to highlight the disparity between Sub-Saharan nations and Maghreb economies. Indeed, North Africa remains the most advanced African region in this area, followed by Southern Africa, Central Africa, West Africa, and East Africa (AfDB, 2022). Figure 5 illustrates that from 2010 to 2021, industrial development was generally more pronounced in the Maghreb than in countries south of the Sahara.

Despite African economies exhibiting a relatively high level of trade openness, with export and import rates representing approximately 65% of GDP in 2021, Africa's contribution to international trade remains modest. As highlighted in Figure 5, from 1995 to 2015, Africa's share of global trade never exceeded 3%. According to recent data, this proportion has remained similar: for instance, UNCTAD reports that in 2019, Africa accounted for only 2.8% of global trade.

Figure 5. Comparison of the Level of Industrialization by Country Group



Source: Data from the AfDB, 2022.

Intra-African trade remains limited, representing only about 16% of total trade, well below the levels observed in Europe (60%), North America (40%), and ASEAN (30%) (UNCTAD, 2013). This structural weakness reflects multiple constraints, with infrastructure deficits identified as a central obstacle (Sané, 2017). Despite

some progress, Africa still suffers from inadequate roads, electricity networks, railways, ports, and airports; fewer than one-third of the population has access to all-season roads, while transport costs and delivery times are two to three times higher than in other regions (AfDB, 2012). Beyond infrastructure, outdated and cumbersome customs systems further restrict trade flows. Complex and largely manual procedures create persistent bottlenecks, increasing transaction costs and causing significant delays in the movement of goods. Together, these factors reveal that intra-African trade is hampered not only by physical infrastructure gaps but also by institutional inefficiencies, both of which undermine the continent's capacity to fully benefit from initiatives such as the AfCFTA.

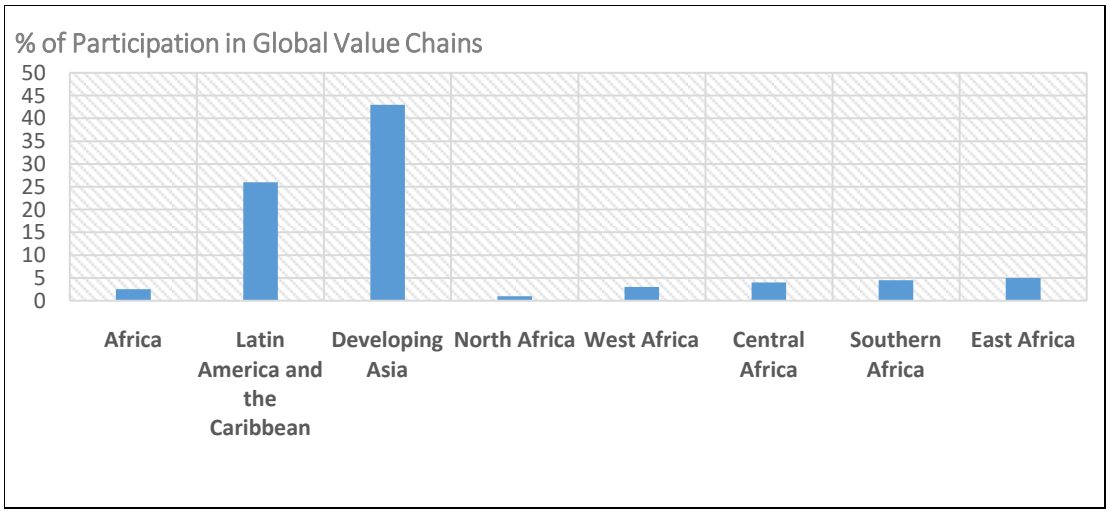
6. DEPLOYING THE AFRICAN CONTINENTAL FREE TRADE AREA TO STRENGTHEN REGIONAL VALUE CHAINS AND ACCELERATE PRODUCTIVE TRANSFORMATION

The establishment of the African Continental Free Trade Area (AfCFTA) opens new prospects for the integration of regional value chains. It is currently the most advanced continental agreement in Africa, addressing crucial issues such as sanitary and phytosanitary standards, technical barriers to trade, intellectual property, and investment (World Bank, 2020). Its main objective is to boost intra-African trade within a continent of 1.2 billion people and a GDP exceeding USD 3 trillion. The growth of domestic markets, driven by demographic growth, urbanization, and the emergence of a new category of workers and consumers, offers new opportunities in various sectors such as food, pharmaceuticals, and the digital domain.

Integrating Africa into global value chains can be supported by the development of regional value chains, thus facilitating productive transformation. Despite this, African producers remain largely marginal players in global production, accounting for only 1.7% of global value chains in 2019, compared to 1.5% in 2000. According to our estimates, regional value chains account for only 2.7% of Africa's participation in global value chains, compared to 26.4% for Latin America and the Caribbean, and 42.9% for developing Asia (see Figure 6). Strengthening regional production networks could help African countries diversify their economic base and increase their productive capacities.

In 2019, processed or semi-processed products represented 79% of intra-African exports, while they accounted for only 41% of Africa's exports to other destinations. Additionally, African companies can leverage their geographical, social, cultural, and institutional proximity to diversify and strengthen their productive capacities when targeting regional and continental markets. This increase in capacities and inputs would enable them to enter more demanding markets.

Figure 6. Share of Regional Value Chains in Global Value Chain Contributions, 2019



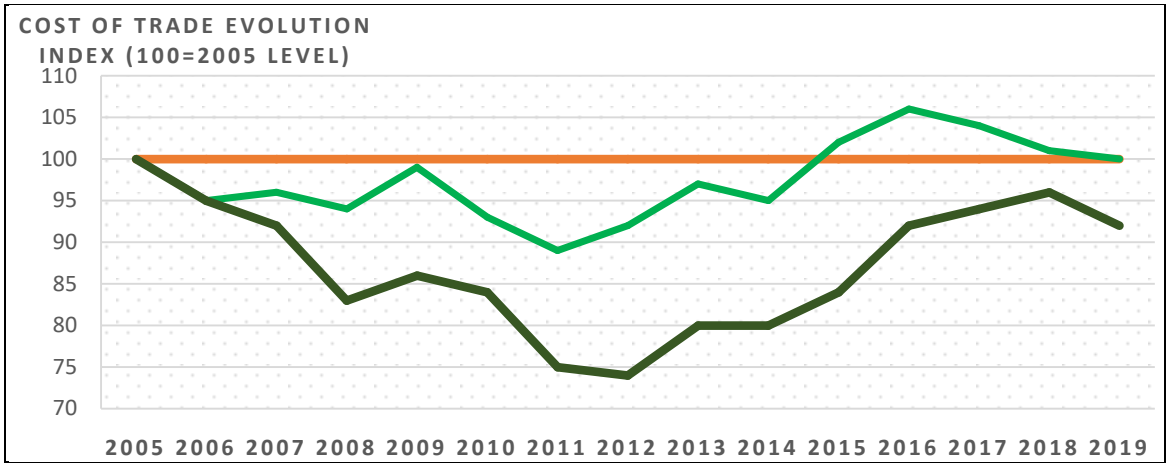
Source: UNCTAD - Eora Global Value Chain Database, https://worldmrio.com/unctadgvc/

Currently, African countries' participation in global value chains is mainly focused on the export of raw materials and agricultural products, which are then processed in other countries. This downstream participation in value chains represents 5.9% of Africa's GDP, a level comparable to that of other developing regions. In contrast, the contribution of using foreign inputs processed locally, or upstream participation, accounts for only

2.1% of African GDP, a figure lower than that of Latin America and the Caribbean (4.5%) and developing Asian countries (3.3%).

Strengthening regional production for local markets could improve upstream participation in value chains and create quality jobs. Local processing to meet domestic demand can help producers specialize in certain upstream segments, such as food processing, marketing, transportation, and distribution, by leveraging their proximity to end consumers. For example, in agri-food value chains, upstream segments contribute to creating non-agricultural jobs both in rural and urban areas. These jobs can generate up to eight times more income than agricultural jobs (Tschirley et al., 2015).

Figure 7. Evolution of Intra-African Trade Costs and Trade Costs with the Rest of the World, 2005–2019



Source: UN ESCAP/ (2021), ESCAP - World Bank Trade Cost

The increase in intra-African trade costs hinders regional production networks. As illustrated in Figure 7, intra-African trade costs have returned to their 2007 levels, despite a significant reduction in intra-African tariffs. These high costs harm production networks as they accumulate each time an item crosses a border. This situation is due to inadequate transportation infrastructure, the presence of non-tariff barriers, and insufficient commercial services in areas such as logistics, export credit, and payment systems. According to some estimates, logistics costs in Africa could be up to four times higher than the global average (Plane, 2021). The health crisis has further increased trade costs due to disruptions in transportation, restrictive trade policies, and uncertainties about the global economic situation.

7. CONCLUSION

This paper makes a preliminary attempt to examine, from both macroeconomic and microeconomic perspectives, the extent to which North African countries are integrated into global value chains (GVCs), using various datasets. Our findings show that North Africa has not yet managed to gain widespread access to global production networks, although their upstream integration has significantly increased over time. The integration of different countries varies, and successful examples of meaningful participation in a value chain are few, indicating that they risk being confined to low-value-added stages. However, GVCs are an important means of connecting developing countries with global production and trade, which can support the tendency of SMEs to export.

Regardless of its position within the value chain, a company must meet minimum quality, cost, and reliability requirements. Clients' purchasing strategies are constantly revised to improve elements of their supply chains. The complexity and heterogeneity of quality standards have become a significant obstacle, especially for SMEs, which face substantial additional costs.

Companies involved in the early stages of the production process and supplying various destinations with intermediate inputs are often required to duplicate their production processes to meet different standards or undergo demanding certification procedures multiple times for the same product. In this regard, international regulatory cooperation (standard convergence, certification requirements, and mutual recognition agreements) can alleviate the compliance burden and improve competitiveness.

For GVCs to have a positive impact, adequate preparation is necessary. Human capital development can be tailored to the needs of specific segments of the value chain. Specialized skills are a prerequisite for participation in high-value-added stages of industries such as information technology, electronics, and pharmaceuticals. Therefore, policies supporting education and technical training are an important tool for enhancing gains from global production.

Recommendations - To translate these findings into actionable strategies, North African countries should;

1. Invest in infrastructure (transport, logistics, and digital networks) to reduce transaction costs and improve regional connectivity.
2. Promote regulatory harmonization by aligning standards with international benchmarks and engaging in mutual recognition agreements to reduce certification burdens for SMEs.
3. Support SME upgrading through targeted financial instruments, technical assistance, and cluster-based industrial policies to help them integrate into higher segments of value chains.
4. Develop specialized skills by reforming education and vocational training systems to match the demands of high-value-added industries.
5. Encourage innovation and technology transfer via partnerships with multinational firms and incentives for research and development.
6. Strengthen regional value chains within North Africa as a stepping stone toward deeper integration into global production networks.

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