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WORKING PAPER 03/2014

Industrial development in North African countries – A statistical profile

INCLUSIVE AND SUSTAINABLE INDUSTRIAL DEVELOPMENT

RESEARCH, STATISTICS AND INDUSTRIAL POLICY BRANCH
WORKING PAPER 03/2014

Industrial development in North African countries – A statistical profile

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Abbreviations

AfDB	African Development Bank
FDI	Foreign Direct Investment
GDP	Gross Domestic Product
GNI	Gross National Income
HDI	Human Development Index
HDR	Human Development Report
ITC	International Trade Centre
ISIC	International Standard Industrial Classification
LDC	Least Developed Country
LT	Low-Technology
MHT	Medium- and High-Technology
MVA	Manufacturing Value Added
PPP	Purchasing Power Parity
RB	Resource-Based
UN	United Nations
UNCTAD	United Nations Conference on Trade and Development
UNECA	United Nations Economic Commission for Africa
UNIDO	United Nations Industrial Development Organisation
UNDP	United Nations Development Programme
UNDS	United Nations Statistical Division
WDI	World Development Indicators

1. Introduction

This statistical profile comprises the six countries of the Northern Africa geographical sub-region as defined by the United Nations Statistics Division. Countries for which data were available for the reference period analysed in this paper are included, namely Algeria, Egypt, Libya, Morocco, Tunisia and Sudan. Data presented in this publication refers exclusively to Sudan[1]. The countries within the region are heterogeneous in terms of population, resources and capital endowments.

Egypt with nearly 84 million inhabitants accounted for more than 40 percent of the more than 207 million residents of the North Africa region in 2012. Sudan (around 18 percent), Algeria (17.6 percent) and Morocco (around 16 percent) make up more than 30 million inhabitants compared to Tunisia with a population of 10.7 million and Libya with a population of 6.5 million.

Algeria and Libya are rich in natural resources, specifically natural gas and oil. Egypt and Morocco have the two largest industrial bases in the region while Tunisia has traditionally been the country with the highest industrial intensity. The region includes one Least Developed Country (LDC), namely Sudan. The region has undergone significant social and political changes in the recent past which, in turn, have also affected its economic performance.

This statistical profile provides an overview of the state of North Africa's industrial sector and their performance in manufactured exports. We use a variety of data sources, namely UNIDO's MVA data, INDSTAT 2 and UNCTADstat from UNCTAD, Comtrade from UNSD, HDI data from UNDP and the World Bank's World Development Indicators (WDI) data.

Structural change drives economic growth by shifting from lower to higher productivity sectors, mainly from agriculture to industry and services. Manufacturing thus offers a country's economy the possibility to sustain growth by moving to higher productivity sectors and significantly contributes to the creation of better paid jobs with a higher labour productivity.

[1] The Republic of South Sudan seceded from Sudan and became independent on 9 July 2011. On 14 July 2011, South Sudan became a new Member State of the United Nations General Assembly. Only partial production data and no trade data are available for South Sudan, which is therefore not included in our analysis. Extreme caution must be taken when looking at the data for Sudan, particularly with regard to average values and/or rates including the years after 2010. It is also worth mentioning that a significant part of the natural resources of the former Sudan is located in South Sudan.

Our analyses suggest that, to varying degrees, the manufacturing base of the North Africa region remains comparatively weak and its potential contribution to sustained economic growth of the region is far from being realized. Moreover, our study suggests that different patterns exist within the region in terms of the development of the manufacturing sector. The manufacturing base of two natural resource-rich countries, Algeria and Libya, remains weak and calls for an urgent diversification of their economies which are almost exclusively dependent on their natural resources, i.e. natural gas and oil. Despite having a relatively larger manufacturing base, the second group of countries, Tunisia, Egypt and Morocco, have witnessed a stagnation or decline in the contribution of their manufacturing sector to their economic growth over the last years due, among other reasons, to the political and social changes and to their strong dependence on a handful of markets which have suffered a severe downturn. This has exacerbated the trend of previous years when North Africa's industrial sector failed to keep pace with the world's most dynamic developing regions. With regard to international trade, North Africa continues to play a minor role at the global level, particularly in manufactured trade. Primary exports, which are exposed to the volatility of world prices, continue to lead North Africa's export structure. The benefits of past commodity booms and regional economic growth have not been exploited to push forward the necessary structural transformation of the region. Moreover, North African manufactured exports are dominated by resource-based and low-technology products and concentrate on a limited number of products and markets, thereby increasing their vulnerability to external shocks, as the recent world economic recession has demonstrated.

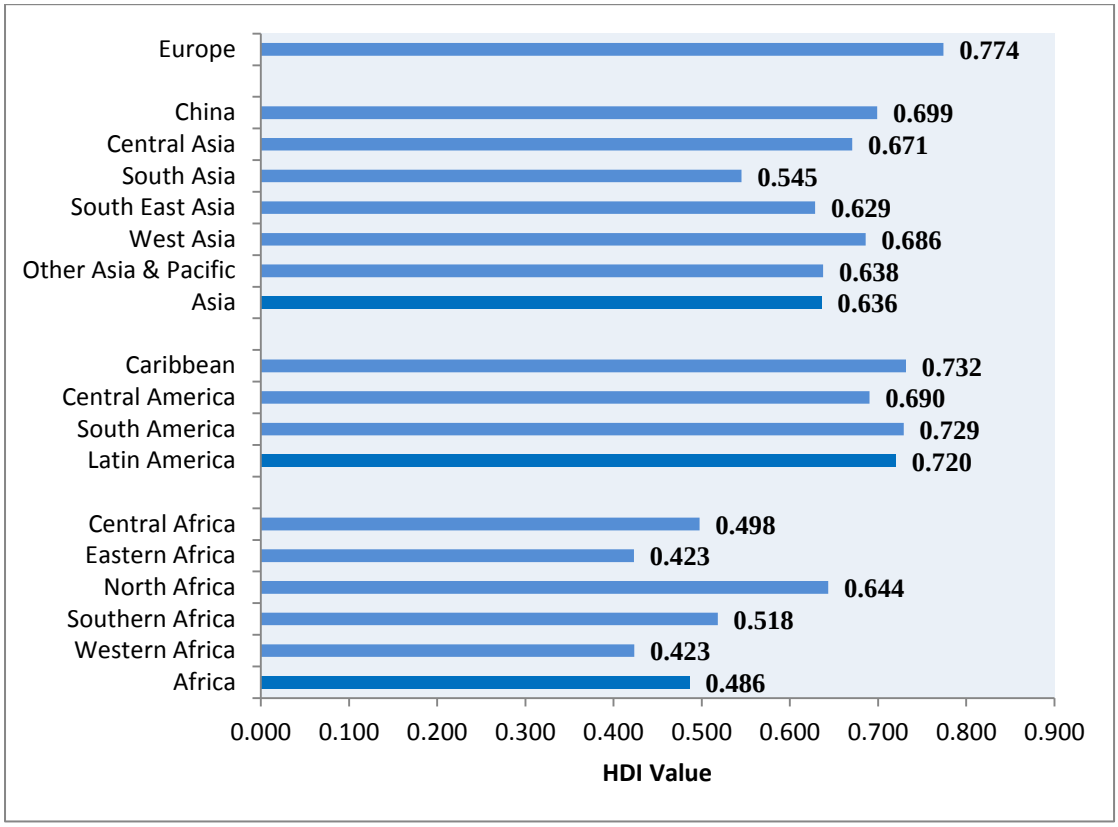
2. Overall socio-economic status of North African countries

This section analyses the Human Development Index (HDI) ranking, with an emphasis on North African countries. The HDI is a comparative summary measure of countries' achievements in three basic dimensions of human development: a long and healthy life (life expectancy at birth), access to knowledge (mean years of schooling and expected years of schooling) and a decent standard of living (GNI per capita). In the second part of this section, we look at North African countries' economic performance in terms of GDP structure and growth.

2.1. North African countries in the HDI ranking

The value of the human development index (maximum 1) for the world, according to the Human Development Report (HDR) 2013, was 0.694 on average, 0.774 for Europe, 0.633 for Asia and 0.720 for Latin America compared to only 0.486 for Africa (Figure 1).

Figure 1 Average 2012 HDI value, by region



Source: UNDP (2013)

North Africa with an average of 0.643 considerably outperforms other African regions. The latter display significant differences, with HDIs ranging from 0.423 in both Western and Eastern Africa to 0.518 in Southern Africa.

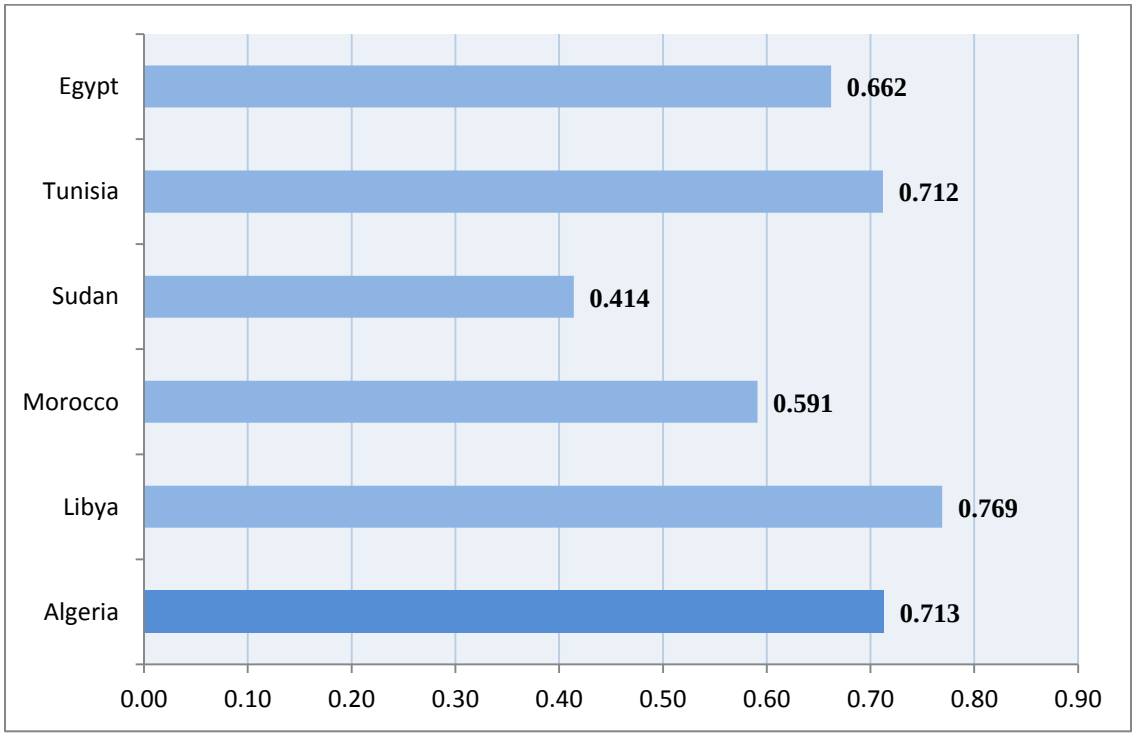
North African countries' rank in both HDI and all three dimensions of human development differ significantly, with Libya outperforming and Sudan underperforming in all dimensions (Figure 2). The North African sub-region's values in the 2012 HDI range from 0.414 in Sudan to 0.769 in Libya.

Out of the six North African countries ranked by the HDI in 2012, three countries were placed in the high HDI category: Libya with an HDI value of 0.769 (rank 64), Algeria with a value of 0.713 and Tunisia with a value of 0.712 (at the bottom of the high HDI country group in ranks 93 and 94, respectively). Egypt with an HDI value of 0.662 (rank 112) and Morocco with a value of 0.591 (rank 130) were positioned in the medium HDI category while Sudan with an HDI value of 0.414 was classified in the low HDI category[2].

[2] In 2012, the HDI country classifications were based on quartiles and were grouped in very high, high, medium and low HDI. In total, 186 countries were ranked.

According to the HDR 2013, two North African countries, Tunisia and Algeria, registered significant reductions (35.6 percent and 34.4 percent, respectively) in their HDIs in the period 1990-2012. Algeria, together with Brazil and Mexico, managed to significantly reduce the underperformance of its HDI despite a low average growth rate of 1-2 percent income per capita during 1990-2012. This can be explained by the countries' strategy to invest in human capabilities through health, education and nutrition, thereby enhancing their resilience to economic and environmental shocks and threats (HDR, 2013). All North African countries' HDI improved during the period 1990-2012.

Figure 2 2012 HDI values, North Africa



Source: UNDP (2013)

2.2. Economic growth of North African countries

GDP per capita, which measures the level of total economic output in a year per unit of population, has stagnated in all countries of the North Africa region during the period 2008-2012, with Libya showing a very volatile economic performance.

In 2012, North Africa's GDP per capita was 3.5 and 1.2 times lower, respectively, than that of the world average and developing countries (Table 1). This is partly explained by the comparatively low GDP per capita of the two most populated North African countries, Egypt and Sudan.

In the same year, the GDP per capita of the North Africa region was 3.2, 2.7 and 2.1 times lower, respectively, than that of Central America, Latin America and West Asia.

Table 1 Level and growth of GDP per capita by country group, US$ constant 2005

Country group	2008	2009	2010	2011	2012	Average annual growth rate (in %)	
						2004-2008	2008-2012
World	7,463	7,220	7,429	7,550	7,642	2.05	0.60
Developed	31,852	30,472	31,197	31,572	31,901	1.51	0.04
Developing	2,192	2,225	2,357	2,459	2,540	5.74	3.76
Central Africa	1,052	1,042	1,082	1,102	1,134	0.79	1.88
Eastern Africa	326	336	350	361	372	4.54	3.30
North Africa	2,125	2,155	2,206	2,042	2,160	3.35	0.41
Southern Africa	1,640	1,601	1,626	1,653	1,672	3.90	0.48
Western Africa	723	744	775	802	833	2.77	3.62
Africa	1,192	1,193	1,221	1,205	1,244	3.24	1.08
Caribbean	4,120	4,098	4,182	4,251	4,278	5.80	0.94
Central America	6,910	6,451	6,689	6,866	7,029	2.01	0.43
South America	5,066	5,002	5,267	5,451	5,529	4.41	2.21
Latin America	5,496	5,330	5,578	5,755	5,854	3.67	1.59
China	2,397	2,604	2,861	3,113	3,338	11.35	8.63
Central Asia	1,729	1,751	1,856	1,980	2,071	6.89	4.62
South Asia	813	863	932	974	996	5.98	5.20
South East Asia	1,397	1,414	1,496	1,545	1,624	4.39	3.83
West Asia	4,192	4,217	4,404	4,538	4,585	4.32	2.27
Other Asia & Pacific	734	734	743	759	775	1.22	1.34
Asia	1,652	1,749	1,890	2,010	2,110	8.03	6.30
Europe	6,768	6,494	6,716	6,962	6,981	4.82	0.78

Source: UNIDO (2014a)

The GDP in North African countries displayed an average marginal growth rate of 0.41 percent per annum between 2008 and 2012, demonstrating a significant deceleration compared to 3.35 per cent per annum during the period 2004-2008. It is worth mentioning that North

Africa's average annual growth rate during 2008-2012 was lower than that of all other African regions. The North Africa region witnessed a similar decline like Southern Africa (an average annual growth rate of 0.48 percent in 2008-2012), the African region with the largest manufacturing base. Central and Eastern Africa increased their average annual GDP per capita growth rate in 2008-2012 compared to 2004-2008, while Eastern Africa showed higher resilience despite a decline in recent years and its GDP growth rate remained at 3.30 percent.

Noteworthy differences in GDP per capita are evident among North African countries (Table 2). For instance, the ratio of the country with the highest GDP per capita in 2012, Libya (6,632 US$ 2005 PPP), was 7.4 times that of the lowest, Sudan (900 US$ 2005 PPP). Libya's severe decrease in GDP per capita of 62 percent in 2011 was followed by a significant increase in 2012, when it more than doubled as a result of substantial production of oil. The level of GDP per capita in Sudan declined in 2011 due to the partition of the country.

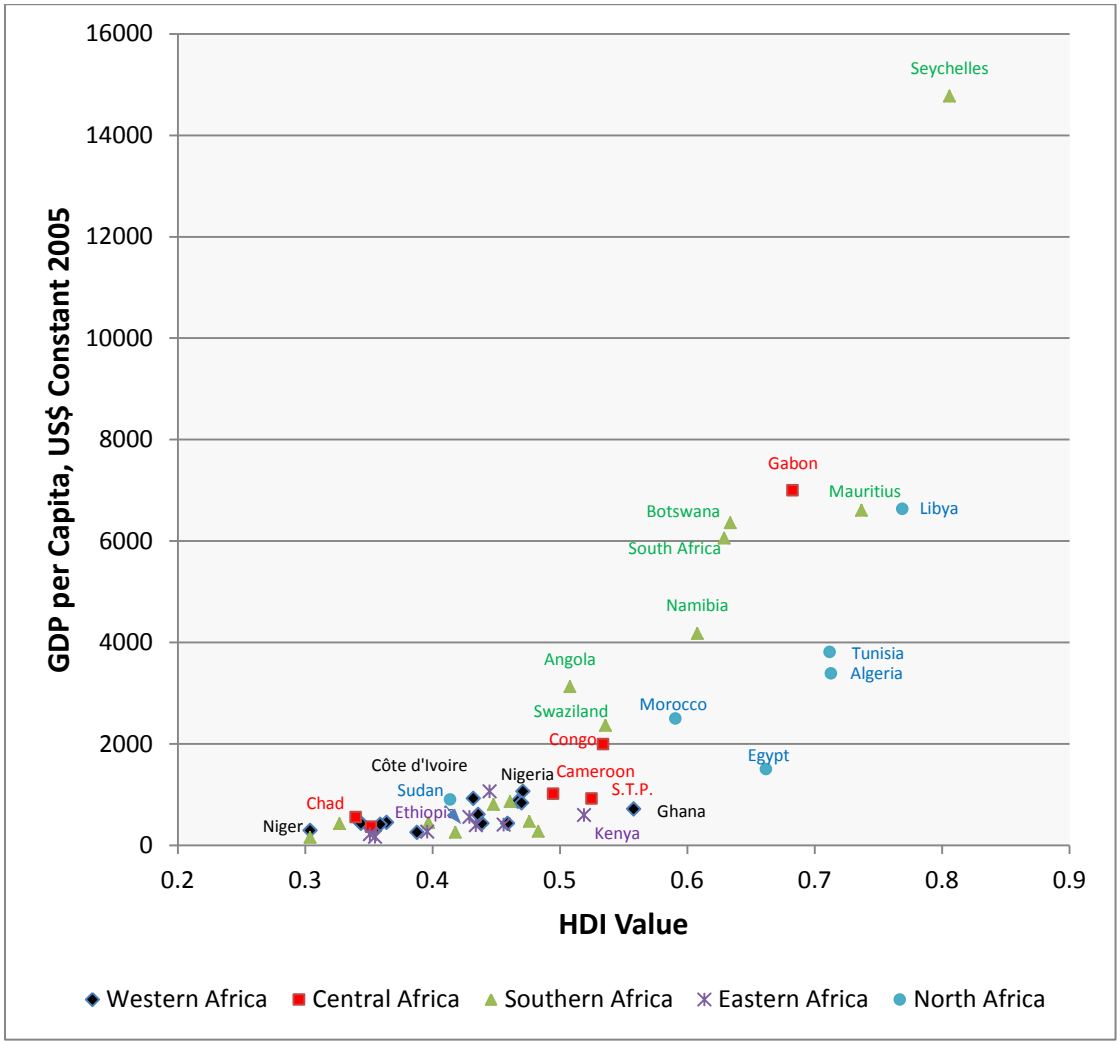
Table 2 Level and growth of GDP per capita by country, US$ constant 2005

Country group	2008	2009	2010	2011	2012	Average annual growth rate (in %)	
						2004-2008	2008-2012
Algeria	3,198	3,226	3,293	3,324	3,386	1.56	1.44
Libya	8,512	8,300	8,523	3,267	6,632	3.95	-6.05
Morocco	2,221	2,303	2,364	2,457	2,498	3.69	2.98
Sudan	984	992	1,004	950	900	4.97	-2.21
Tunisia	3,693	3,762	3,832	3,715	3,809	3.95	0.78
Egypt	1,404	1,444	1,492	1,492	1,500	4.47	1.66

Source: UNIDO (2014a)

As expected, resource-rich countries such as Libya and Algeria have high HDI values whereas Sudan has a low HDI value. Tunisia, however, attained a higher HDI value despite having limited natural resources compared to Morocco, the world's largest producer and exporter of phosphates. The region's advancements over the last decades to reduce the shortfall of HDI can mainly be explained by investments in education and health (UNDP, 2013).

Figure 3 GDP per capita and HDI value, 2012



Source: UNDP (2013), UNIDO (2014a)

2.3. GDP structure

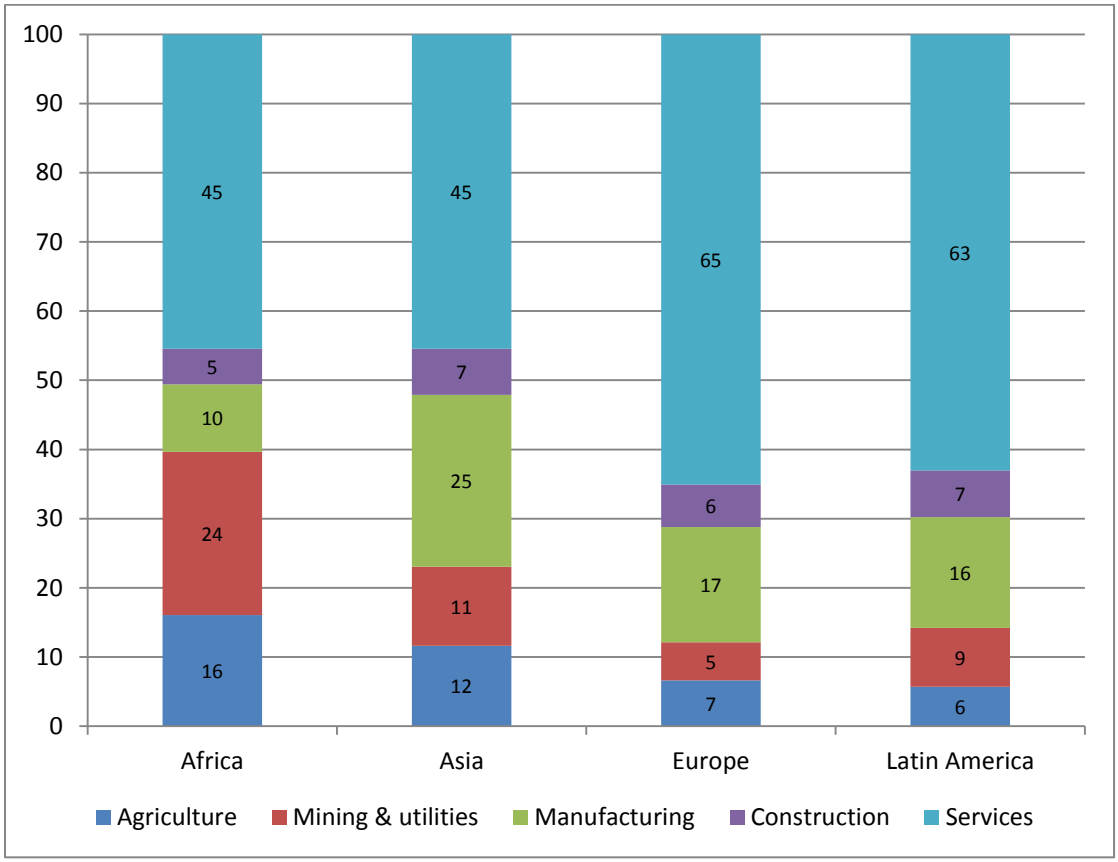
During 2008-2012, the mining industry accounted for 24 percent of GDP in Africa compared to 11 percent in Asia and 9 percent in Latin America (Figure 4). The agricultural-forestry-fishing industry contributed 16 percent of GDP, resulting in a 40 percent total contribution of the primary sector in Africa compared to 23 percent in Asia, 15 percent in Latin America and 12 percent in Europe. The contribution of manufacturing to GDP remained as low as 10 percent in Africa compared to 25 percent in Asia and 16 percent in Latin America.

The primary sector plays a prominent role in most African regions (Figure 5). It accounts for 60 percent of GDP in Central and Western Africa and for nearly four-fifths in Eastern and North Africa. The agricultural-forestry-fishing industry accounts for one-third of GDP in both Eastern and Western Africa, while Central Africa mainly relied on mining resources which

accounted for almost half of its GDP. Mineral resources are also important contributors to GDP in Western Africa (28 percent), North Africa (25 percent) and Southern Africa (19 percent).

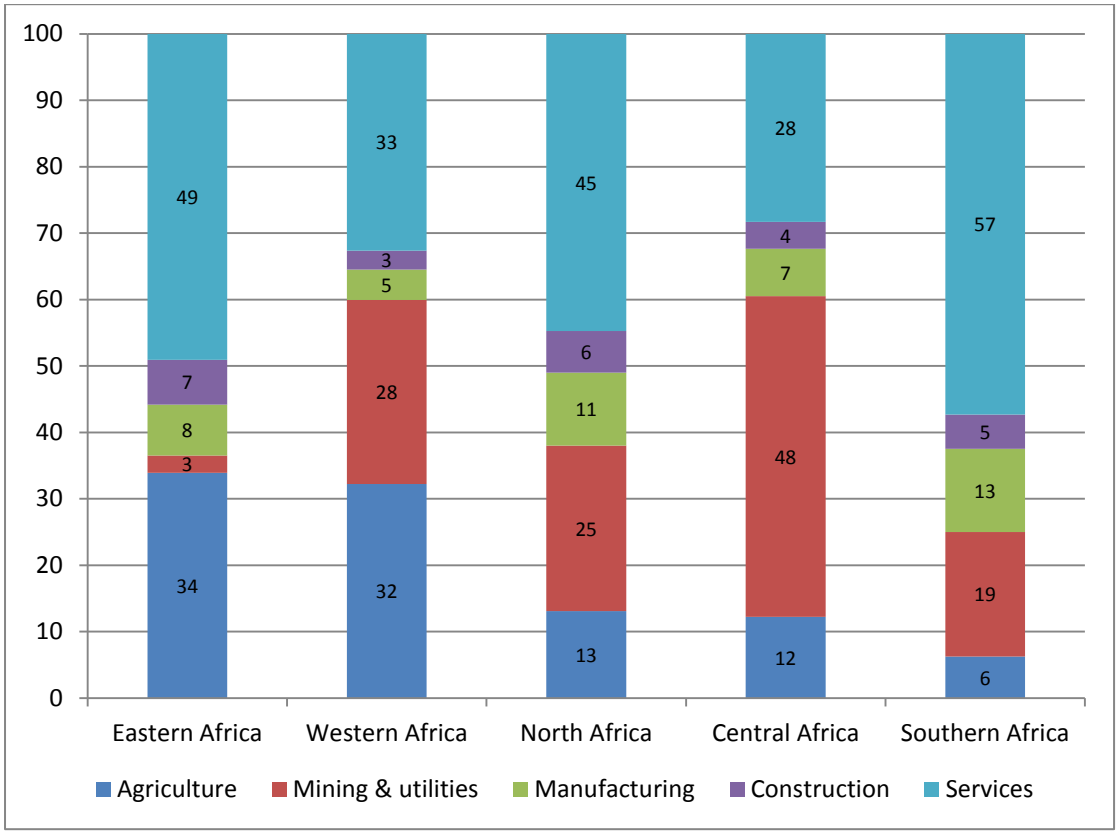
The contribution of the manufacturing sector to GDP is negligible in the various African regions. Percentages range from a dismally low 5 percent in Western Africa to 13 percent in Southern Africa. Finally, services play an important role in most African regions. Their contribution to the regional GDP varies from 57 percent in Southern Africa to 28 percent in Central Africa.

Figure 4 Structure of GDP – World Developing Regions (2008 – 2012)



Source: UNSD (2014a)

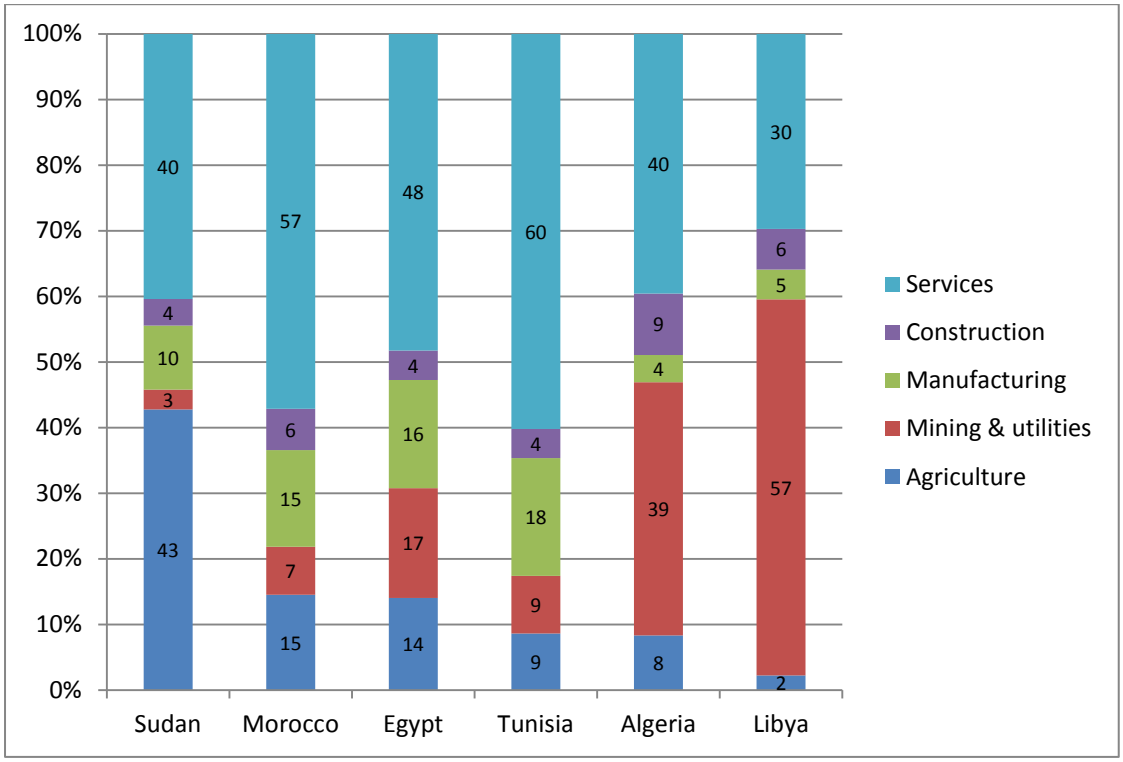
Figure 5 Structure of GDP – Developing Africa (2008 – 2012)



Source: UNSD (2014a)

Within North Africa, the composition of GDP reveals significant differences between countries (Figure 6). Mining plays a key role in resource-rich countries such as Libya (57 percent) and Algeria (39 percent) which are the less industrialized countries of the region. The services sector, in turn, is the leading contributor to GDP in Tunisia (60 percent) and Morocco (57 percent). The share of the manufacturing sector is highest in those two countries together with Egypt (18 percent, 15 percent and 16 percent, respectively) within the North Africa region, while the agricultural sector is the largest contributor to GDP in Sudan (43 percent).

Figure 6 Structure of GDP – North Africa (2008 – 2012)



Source: UNSD (2014a)

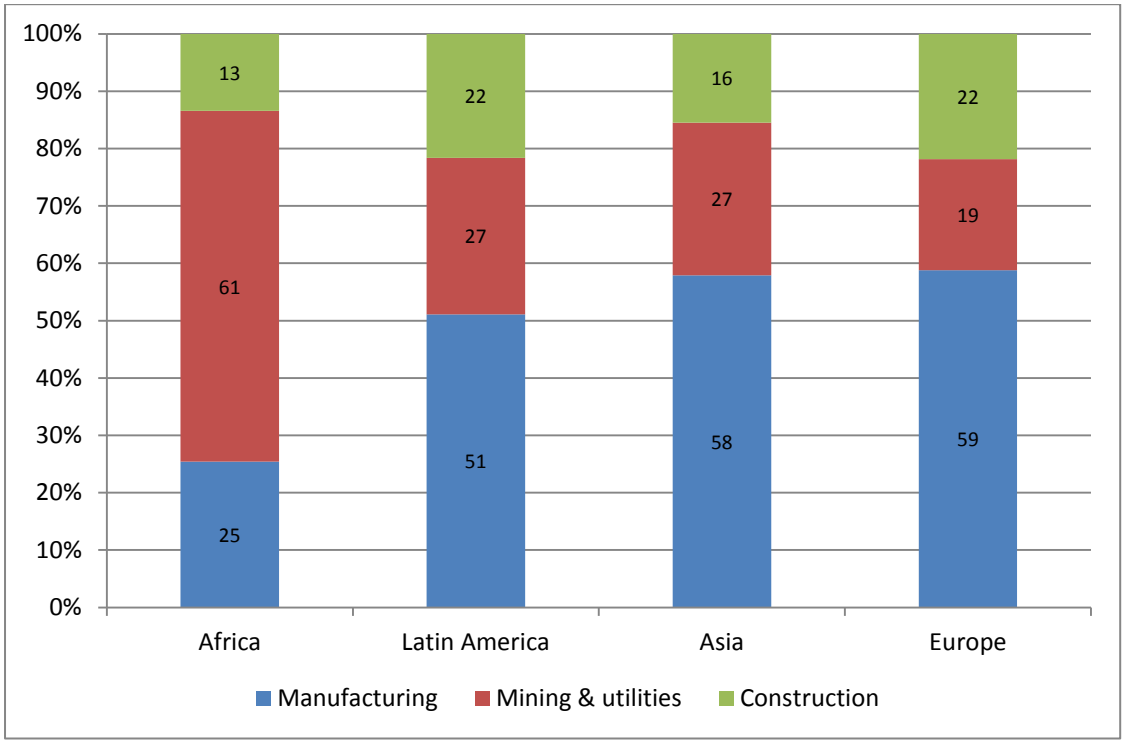
3. State of manufacturing production in North African countries

This section examines the industrial production growth and structure of North African countries in comparison to other country groups. It then compares the relative industrial performance of countries within the North Africa group.

3.1. Industrial production

Manufacturing accounted for only one-fourth of Africa's industrial structure, on average, for the period 2008-2012, while mining and utilities made up 61 percent, the largest share of the overall structure of African industry (Figure 7). The share of mining and utilities in Africa was more than double that of other regions including Europe, Asia and Latin America, where manufacturing played the leading role in industry with 59 percent, 58 percent and 51 percent, respectively.

Figure 7 Structure of industry – Developing World Regions (2008 – 2012)



Source: UNSD (2014a)

Within Africa, variations among regions are significant. On the one hand, mining and utilities accounted by far for the largest share of industry in Central Africa (81 percent), Western Africa (79 percent), North Africa (59 percent) and Southern Africa (51 percent). On the other hand, manufacturing was the leading contributor to industry in Eastern Africa (45 percent); Southern and North Africa followed in terms of the highest contribution of manufacturing with one-third and one-fourth, respectively.

The structure of industry in North Africa also reveals a great deal of divergences between countries. The contribution of manufacturing to national industrial structure is highest in Tunisia and Sudan (both at 58 percent), followed by Morocco (52 percent) and Egypt (44 percent). At the other extreme, mining and utilities play the leading role in Libya with 85 percent and Algeria with 74 percent.

The share of Africa's population to total world population increased from 14.4 percent to 15 percent, growing faster than its share in world MVA which stagnated at 1.48 percent. The share of Africa's MVA in total MVA of developing countries which increased their share in world MVA, declined from 5 percent in 2008 to 4.3 percent in 2012. During the same period, the share of North Africa's population in world population grew from 0.28 to 0.29 percent

while its share in world MVA stagnated at 0.53 percent. Developed countries with a combined population of 17 percent held more than 65 percent of global industrial production in 2012.

In line with the overall trend in Africa, the North Africa region exhibited a significant slowdown of its already comparatively moderate average MVA growth rate from 4.66 percent during 2004-2008 to 1.51 percent in 2008-2012 (Table 3). This compares to Western Africa, which only accounted for 10.53 percent of Africa's MVA, but managed to increase its average annual MVA growth rate from 3.05 percent to 5.08 percent during the same period or to Eastern Africa's annual MVA growth rate, which remained at more than 5 percent but only accounted for 3.96 percent of Africa's total MVA. Despite the decline in developing countries and in China, their average annual growth rates remained at comparatively much higher levels, i.e. 5.67 percent and 8.55 percent, respectively, during the period 2008-2012.

Table 3 Level and growth of MVA by country group, US$ constant 2005, in billion

Country group	2008	2009	2010	2011	2012	Average annual growth rate (in %)	
						2004-2008	2008-2012
World	8,247	7,580	8,298	8,626	8,839	3.60	1.75
Developed	5,809	5,089	5,594	5,739	5,800	1.95	-0.04
Developing	2,438	2,491	2,704	2,886	3,039	8.13	5.67
Central Africa	4	4	4	4	5	2.31	2.99
Eastern Africa	4	4	5	5	5	5.73	5.14
North Africa	44	45	46	45	47	4.66	1.51
Southern Africa	59	54	57	59	61	5.43	1.04
Western Africa	11	12	12	13	14	3.05	5.08
Africa	122	119	124	126	131	4.82	1.81
Caribbean	15	15	17	18	18	3.83	4.70
Central America	178	162	177	185	192	2.73	1.89
South America	292	274	296	306	307	4.15	1.24
Latin America	486	452	490	509	518	3.61	1.59
China	1,059	1,141	1,243	1,364	1,470	12.11	8.55
Central Asia	10	10	11	12	12	3.88	4.98
South Asia	199	216	236	244	252	9.40	6.12
South East Asia	209	206	225	231	248	5.32	4.35
West Asia	80	83	91	96	100	8.09	5.54
Other Asia & Pacific	3	3	3	3	4	1.53	0.65
Asia	1,560	1,659	1,810	1,949	2,085	10.42	7.52
Europe	269	261	280	301	305	6.33	3.16

Source: UNIDO (2014a)

Low and stagnant levels of MVA explain Africa's low level of MVA per capita at constant 2005 US$ 124 in 2012 (Table 4). This is 38 times less than that of developed countries and more than 4 times less than developing countries' MVA per capita. Despite the North Africa region recording the highest MVA per capita among Africa's regions in 2012 with US$ 274 (constant 2005 dollars), followed closely by Southern Africa with US$ 213, its MVA per capita is comparatively lower than that of other country groups, e.g. 17 times lower than that of developed countries and four times lower than the MVA per capita of Central America. Previous research by UNIDO indicates that Africa has not benefitted from the increase of manufacturing production and exports recorded by developing countries since 2000 (UNIDO, 2009). Moreover, during the period 1990-2010, the Middle East and North Africa only managed to achieve a small increase in MVA per capita, with the exception of Turkey, with no sign of diversification, i.e. the region remains dependent on oil (UNIDO, 2013a).

Table 4 Level and growth of MVA per capita by country group, US$ constant 2005

Country group	2008	2009	2010	2011	2012	Average annual growth rate (in %)	
						2004-2008	2008-2012
World	1,233	1,121	1,213	1,247	1,262	2.42	0.78
Developed	4,863	4,232	4,625	4,720	4,746	1.33	-0.28
Developing	444	448	480	506	525	6.76	4.31
Central Africa	104	101	104	105	107	-0.09	0.68
Eastern Africa	23	24	25	25	26	3.04	2.24
North Africa	274	277	280	266	274	3.04	0.07
Southern Africa	224	203	209	212	213	3.07	-1.11
Western Africa	39	40	40	41	42	0.45	2.42
Africa	126	121	123	122	124	2.43	-0.47
Caribbean	422	427	467	484	491	2.96	3.93
Central America	1,176	1,054	1,134	1,172	1,200	1.34	0.73
South America	761	707	754	773	767	2.96	0.30
Latin America	850	782	837	862	858	2.37	0.39
China	797	855	927	1,012	1,086	11.55	8.04
Central Asia	176	170	187	198	204	2.85	3.85
South Asia	125	135	145	147	150	7.81	4.64
South East Asia	383	373	403	408	434	4.11	3.31
West Asia	404	408	441	456	464	5.89	3.12
Other Asia & Pacific	101	97	99	100	100	0.51	-0.35
Asia	416	438	472	504	532	9.21	6.33
Europe	1,120	1,081	1,160	1,245	1,258	6.19	3.04

Source: UNIDO (2014a)

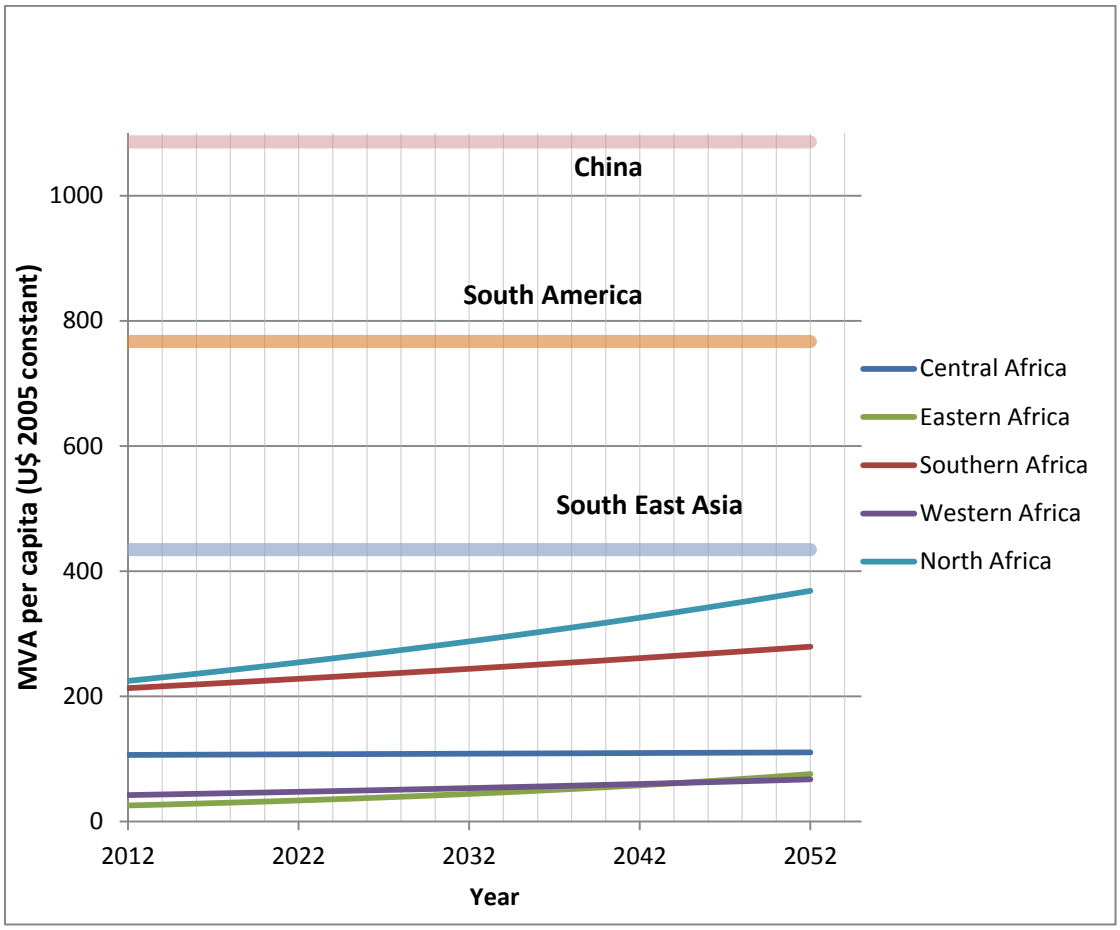
The situation in the North Africa region looks comparatively worse when considering both its limited industrial fabric and its growing population. MVA per capita stagnated at US$ 274 during 2008-2012 compared to a 3.04 percent growth in 2004-2008 (Table 4). Despite significantly lower levels of MVA per capita, Western Africa increased its MVA per capita at 2.42 percent during 2008-2012 to reach US$ 42 and Eastern Africa, despite a contraction, recorded an average annual growth rate of 2.24 percent, recording US$ 26 in 2012. The stagnation of North Africa's MVA per capita compares to an increase of nearly US$ 81 during the period 2008-2012 in developing countries, which reached a value of US$ 525 (constant 2005 dollars) in 2012 or to China, which recorded an impressive increase of almost US$ 290, reaching a per capita MVA in 2012 of US$ 1,086.

Despite registering the highest MVA per capita in Africa, the North Africa region not only continues to lie far behind other world country groups, but the existing gap is also increasing due to the region's stagnation in 2008-2012.

According to their average growth rates for 2003-2012, none of the African regions would manage to catch up to other selected country groups (Figure 10). However, if North Africa succeeded in increasing its MVA per capita growth rate to 10 percent per annum, the region could reach the 2012 MVA per capita level of South East Asia within 7 years, South America's within 13 years and China's within 17 years.

The aggregate growth rate of the North Africa region masks the differences between countries. All countries in the region experienced lower average annual MVA growth rates during 2008-2012 compared to 2004-2008 (Table 5). Egypt, which accounted for more than 40 percent of the region's MVA in 2012, witnessed a drop in its growth rate from 6.50 percent to 2.84 percent, while Libya's MVA, which barely accounted for 3 percent of North Africa's total MVA, plummeted in 2008-2012 to a rate of -12.11 percent.

Figure 8 Catching-up of African regions to selected countries or country groups based on 2012 MVA per capita (2005 constant dollars)



Source: Estimations based on UNIDO data (2014a)

Table 5 Level and growth of MVA by country group, US$ constant 2005, in million

Country	2008	2009	2010	2011	2012	Average annual growth rate (in %)	
						2004-2008	2008-2012
Algeria	6,221	6,594	5,676	6,105	6,199	2.72	0.29
Egypt	17,614	18,345	19,322	19,148	19,684	6.50	2.84
Libya	2,653	2,747	2,780	639	1,433	4.25	-12.11
Morocco	9,574	9,636	9,913	10,121	10,414	3.32	2.13
Sudan	2,068	2,139	2,429	2,336	2,313	5.02	3.04
Tunisia	5,791	5,598	6,248	6,329	6,593	3.88	3.43

Source: UNIDO (2014)

Consequently, all of the region's countries also recorded considerable declines in their MVA per capita growth rates (Table 6). Tunisia displayed the highest value in 2012 at US$ 616 (constant 2005 dollars), nearly ten times higher than Sudan, whose MVA per capita stagnated in 2008-2012, and almost twice that of Morocco (US$ 319), the second highest value in the region with an MVA per capita that experienced moderate growth (1.11 percent) during 2008-

2012. Algeria (-1.15 percent) and Libya (-12.37 percent) witnessed a decline in their MVA per capita in 2008-2012 with their respective values dropping to US$ 170 and US$ 222 (constant 2005 dollars) in 2012, respectively.

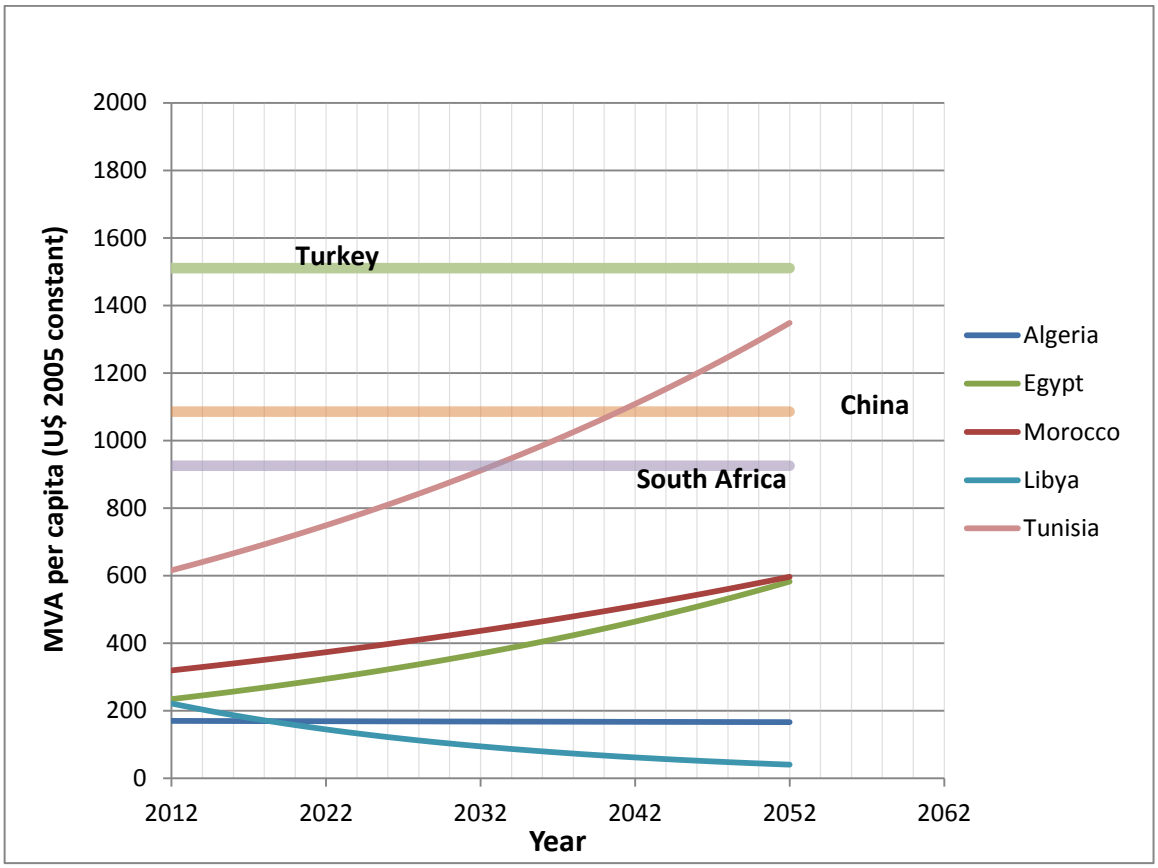
Table 6 Level and growth of MVA per capita by country, US$ constant 2005

Country group	2008	2009	2010	2011	2012	Average annual growth rate (in %)	
						2004-2008	2008-2012
Algeria	181	189	160	170	170	1.17	-1.15
Egypt	225	230	238	232	234	4.59	1.07
Libya	431	439	437	100	222	2.03	-12.37
Morocco	306	305	310	314	319	2.28	1.11
Sudan	61	61	68	64	62	2.38	0.59
Tunisia	565	540	596	597	616	2.76	2.32

Source: UNIDO (2014a)

Based on the region's average growth rates for 2003-2012, only one country in the region, Tunisia, could reach the MVA per capita levels achieved by some selected countries within 40 years. Tunisia could reach the level of South Africa's MVA per capita level within 21 years and China's within 29 years (Figure 11), but would fail to catch up with the MVA per capita level of other countries such as Turkey. At current growth rates, all other North African countries would fail to catch up with the current MVA per capita levels of other countries. North African countries need to record significantly higher growth rates to close the gap with selected countries' MVA per capita in the coming years.

Figure 9 Catching-up of North African countries with selected countries based on 2012 MVA per capita (2005 constant dollars)



Source: Estimations based on UNIDO data (2014a)

The intra-industry structure of manufactured production in African regions is presented in Figure 12. It is worth noting that sub-Saharan Africa (SSA) and Latin America recorded the lowest change in their industrial structures. Resource-based activities continue to dominate SSA's industrial structure. SSA failed to follow the pace of the general shift to more complex industrial activities (UNIDO, 2013b). Moreover, SSA reduced its capacity in 1990-2010 to capture manufacturing value as shown in the decline by one-third of its share of medium- and high-tech MVA in total manufacturing (UNIDO, 2013a).

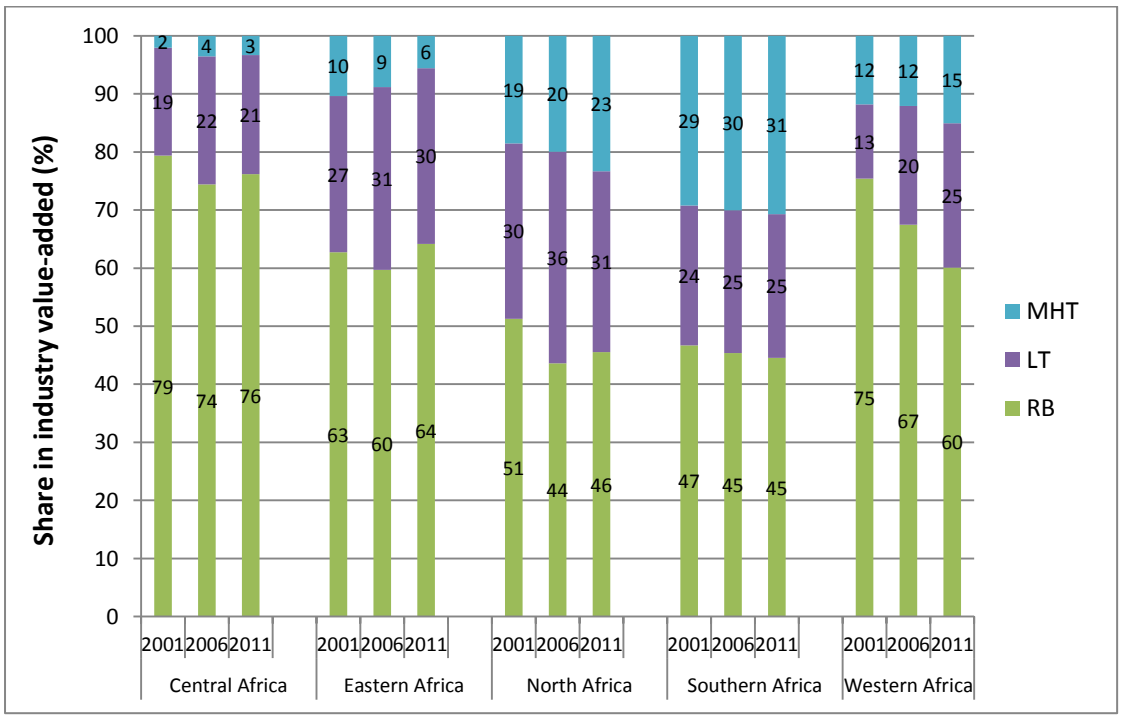
Southern and North Africa, which together accounted for four-fifths of Africa's MVA in 2012, also had the highest share of medium- and high-technology products in the region at 31 percent and 23 percent, respectively. Medium- and high-tech activities are particularly valuable as they grow faster, especially at medium- and high-income levels, offer enhanced learning opportunities and spillover effects (UNIDO, 2009). The share of resource-based activities accounted for nearly half of MVA and remained significant in both Southern (45 percent) and North Africa (46 percent). Low-tech MVA plays a less significant role in African manufacturing than one would expect, bearing in mind its development stage. Africa's low-

tech MVA has recorded a decline, which is associated with the decrease in textiles production (UNCTAD and UNIDO, 2011).

During 2002-2011, the Middle East and North Africa roughly followed the world trend, continuously shifting towards more complex products over time. Thus, the share of resource-based manufacturing dropped to 40.3 percent while MHT activities increased to 32.7 percent (UNIDO, 2013b).

Northern and Southern Africa, Africa's two largest industrial regions, also displayed the highest increases and shares of MHT activities in manufacturing, at 23 percent and 31 percent, respectively. Overall, despite moderate declines, the share of resource-based activities remains the largest component in all African regions. Central, Eastern and Western Africa also displayed high shares of resource-based activities accounting for 76 percent, 64 percent and 60 percent, respectively.

Figure 10 Technological structure of MVA – Regional level



Source: UNIDO (2014b)

3.2. Relative industrial performance

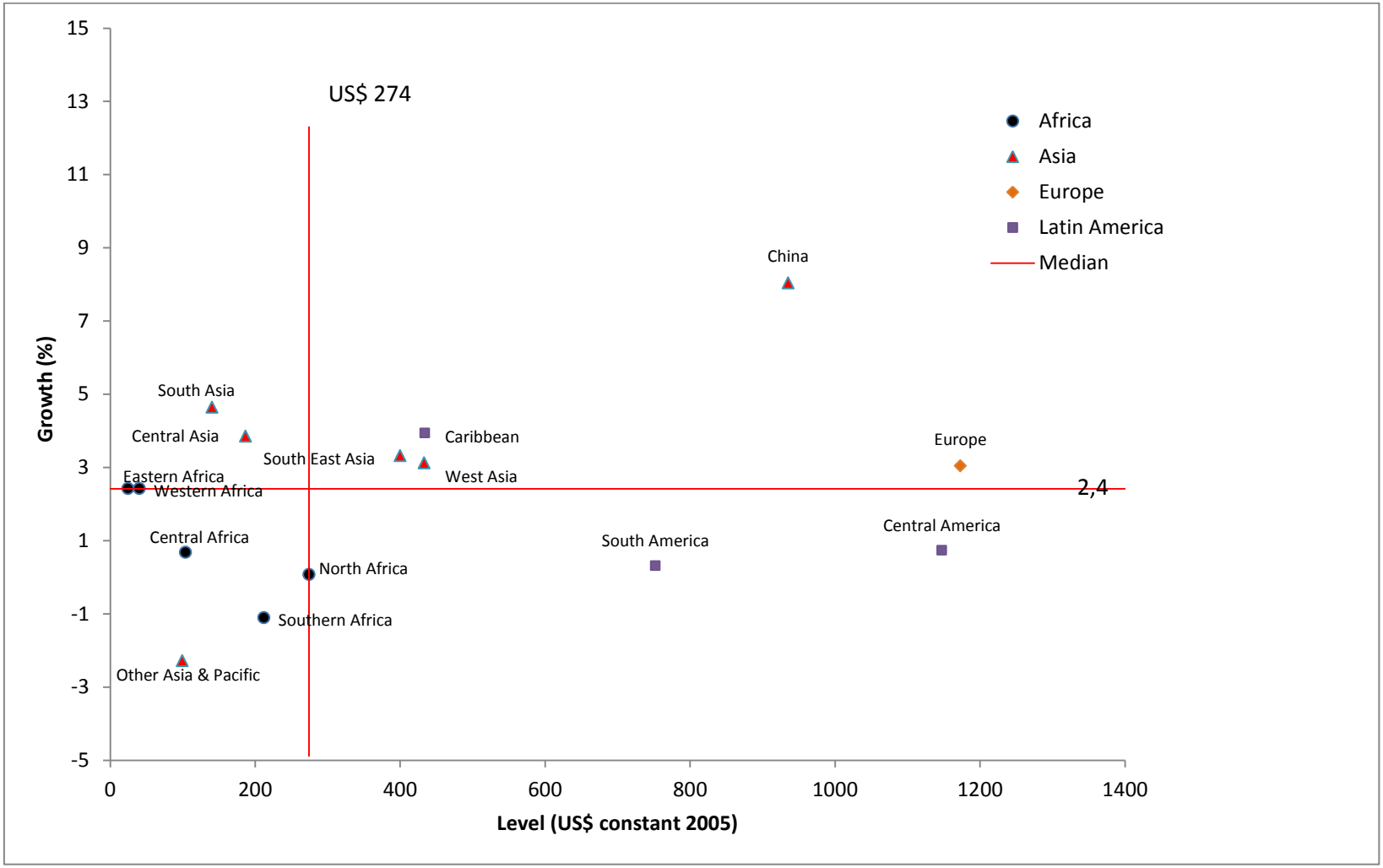
This section examines North Africa's relative industrial performance compared to other selected world regions.

Figure 11 presents the MVA per capita level of selected world regions and their MVA per capita growth. Using the MVA median growth (2.4 percent) during 2008-2012 and the MVA per capita median level (US$ 274) in 2012 of selected regions, the graph can be divided into four zones to illustrate relative performance.

In the top-right quadrant, we find regions such as Europe, South East Asia, the Caribbean and South America and countries such as China, which recorded an impressive 8.04 percent average growth rate with comparatively higher MVA levels and growth rates. The bottom-right quadrant includes regions such as Central and South America which have also achieved relatively higher levels of MVA per capita, but are experiencing difficulties in sustaining their growth. The top-left quadrant includes regions such as South Asia with a relatively lower manufacturing base but a significant level of growth with a 2008-2012 average MVA per capita growth rate of 4.64 percent.

Finally, regions with a declining MVA per capita from already relatively low levels are found in the bottom-left quadrant. These include Central, Eastern, Western and Southern Africa. North Africa shows relatively low average growth rates combined with an MVA per capita that falls precisely into the median of all regions. The relative performance of African regions is weak; none of them recorded higher values than the median for the chosen variables.

Figure 11 **MVA per capita, 5-year average (2008 – 2012)**



Source: UNIDO (2014a)

Figure 12 presents the relative average MVA per capita level of African countries and their average growth rate. Using the MVA per capita median growth (0. percent) during 2008-2012 and its average level (US$ 44) of selected regions in 2012, the graph can be divided into four zones to illustrate the relative performance.

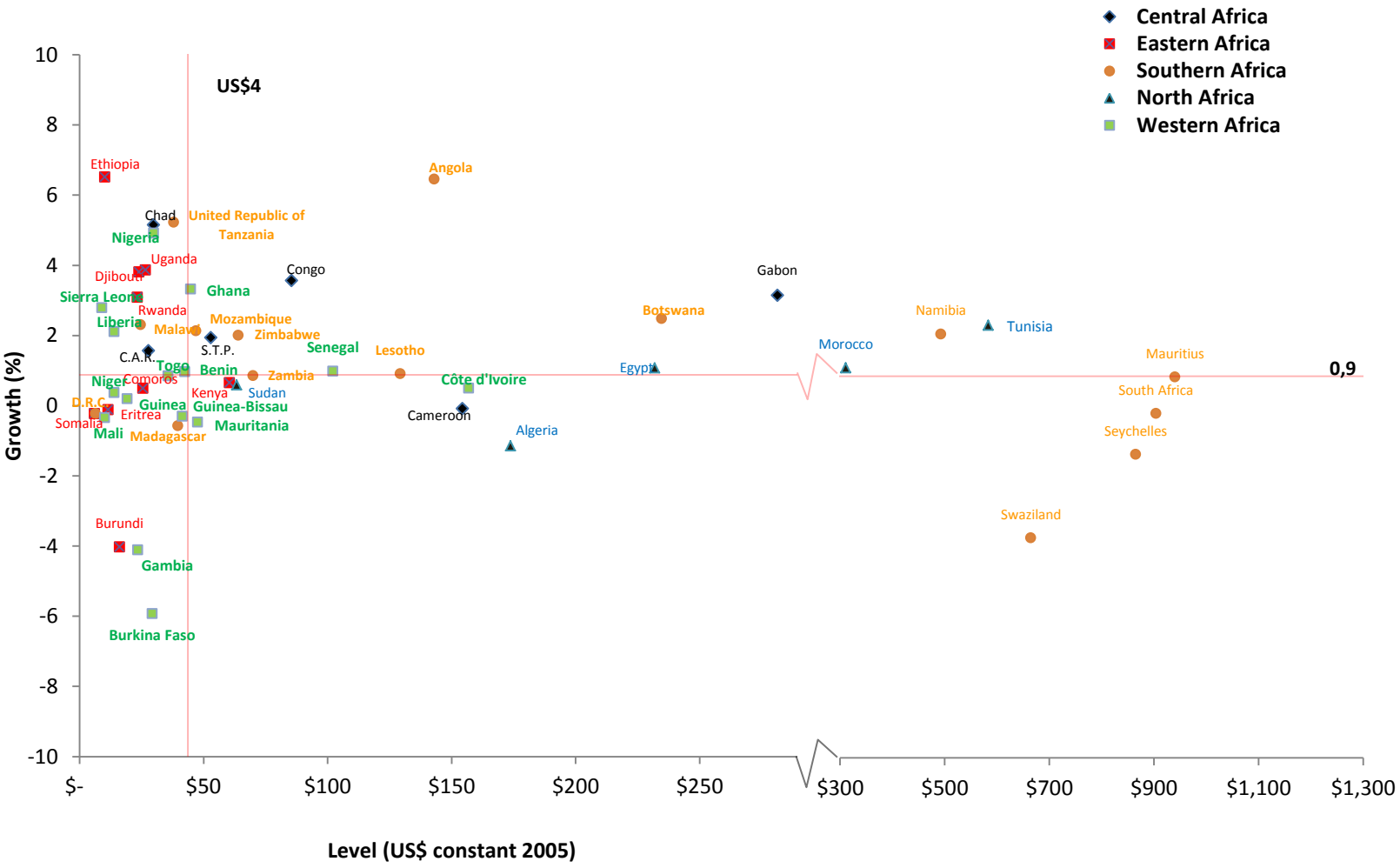
In the top-right quadrant, we find countries that recorded comparatively higher MVA levels and growth rates (relative to other African countries). Three North African countries are included in this group, namely Tunisia, Egypt and Morocco, but they displayed significant differences in terms of the 2008-2012 average MVA per capita ranging from US$ 583 in Tunisia with the highest level in this quadrant, to US$232 in Egypt with the lowest. Their average growth rates during 2008-2012 varied from 2.32 percent in Tunisia to 1.7 percent in Egypt. In this group, the growth rates recorded by Angola at 6.44 percent, Congo 3.56 percent and Gabon 3.15 percent were remarkable, even if their MVA per capita levels were not among the highest in this quadrant.

The bottom-right quadrant includes countries that achieved relatively higher levels of MVA per capita, but experienced difficulties in sustaining their growth. The four countries with the highest MVA per capita levels, namely Mauritius at US$ 940.3 (the country's average growth rate represents the median), South Africa at US$ 904, Seychelles at US$ 865 and Swaziland at US$ 664.8, fall into this quadrant. Among this group, Swaziland with -3.73 percent and Seychelles with –1.35 percent recorded the worst growth rates. Algeria is also part of this group as well at an average of US$ 174 MVA per capita and an average growth rate of -1.15 percent during 2008-2012. Libya belongs to this group as well (albeit not displayed in the figure) with an average growth rate of -12.37 percent.

The top-left quadrant includes countries with a relatively lower manufacturing base but a significant level of growth, and includes Ethiopia, Chad, Tanzania and Nigeria. Ethiopia recorded the highest average growth rate with 6.71 percent during 2008-2012, followed by Tanzania with 5.22 percent.

Finally, in the bottom-left quadrant, we find countries with a declining MVA per capita from already relatively low levels, such as Burkina Faso, the Gambia and Burundi.

Figure 12 MVA per capita, 5-year average (2008 – 2012)



Source: UNIDO (2014a)

Africa's industrial sector remains underdeveloped (Lall, 2005; Bigsten and Söderbom, 2011; UNIDO, 2010, 2013a, 2013b). Moreover, Africa deindustrialized during 1992-2012 (Table 7). Its level of industrialization, using the share of MVA in GDP as a proxy, declined from 11.63 percent in 1992 to 9.95 percent in 2012. This accentuates the overall trend experienced in 1950-2005 when manufacturing industries followed an almost flat trajectory, reaching a share of 11 percent MVA in GDP in 2005, equivalent to that of 1950 (Szirmai, 2012; UNIDO, 2013a). The share of MVA in GDP declined in all African regions to values ranging from 5.09 percent in Western Africa to 12.76 in Southern Africa (Table 7). In North Africa, that share slightly declined to 10.41 percent in 2012. This compares to an increase in developing countries as a whole where MVA reached 20.59 of GDP in 2012 while South East Asia and China reached 26.76 percent and 32.53 percent, respectively.

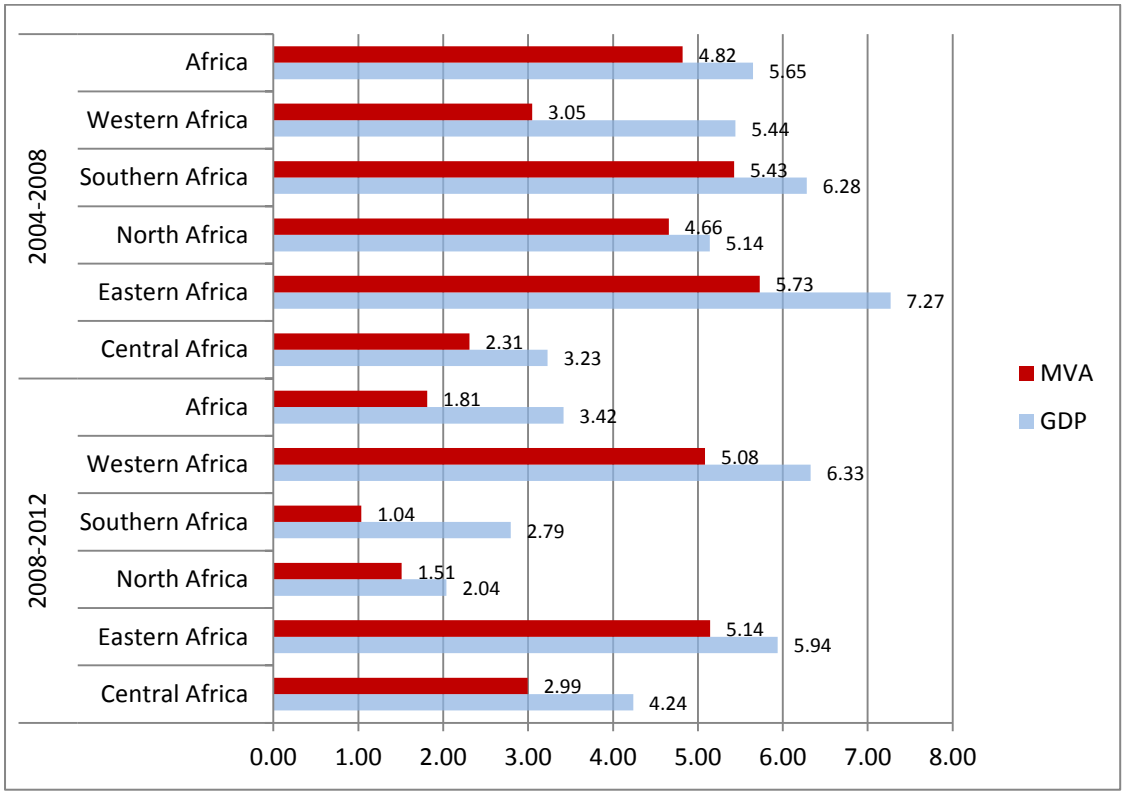
Table 7 Share of MVA in GDP

Country/Region	**1992**	**2002**	**2012**
World	15.70	15.73	16.45
Developed	15.53	15.00	14.88
Developing	16.49	18.68	20.59
Central Africa	9.91	10.81	9.40
Eastern Africa	8.46	7.49	6.95
North Africa	10.91	11.49	10.41
Southern Africa	15.01	14.66	12.76
Western Africa	7.16	6.42	5.09
Africa	11.63	11.56	9.95
Caribbean	11.60	12.42	11.48
Central America	17.35	17.95	17.07
South America	16.74	15.01	13.87
Latin America	16.73	15.95	14.79
China	27.41	31.97	32.53
Central Asia	13.36	12.16	9.84
South Asia	13.08	14.52	15.08
South East Asia	22.87	26.98	26.76
West Asia	7.12	8.63	10.12
Other Asia & Pacific	17.62	14.21	12.90
Asia	18.28	23.30	25.27
Europe	15.37	14.81	18.01

Source: UNIDO (2014a)

An additional issue of concern is the fact that Africa's manufacturing sector grew slower in general with 1.81 percent than its economy as a whole with 3.42 percent during 2008-2012. The same applies to the previous period of 2004-2008 despite higher growth rates with 4.82 percent and 5.65 percent, respectively. Even Africa's post-1995 growth was weak and the lack of industry on the continent continues to constitute a barrier to its growth prospects and makes it more difficult to attract industry compared to regions that have already industrialized (Page, 2010). Thus, despite some evident growth in sub-Saharan Africa, the challenge to accelerate and sustain it remains (Abarche et al., 2008).

Figure 13 Growth of MVA and GDP (%) – Regional level



No African region recorded a higher growth rate of its manufacturing sector than of its economy as a whole either in 2004-2008 or in 2008-2012. The highest manufacturing and economic growth rates (higher than 4.85 percent) during 2008-2012 were recorded in Western and Eastern Africa. Both belong to the least industrialized regions in Africa and only accounted for 10.68 percent and 3.8 percent, respectively, of Africa's MVA in 2012. Unlike other developing regions, Africa's economic growth over the last decades has not resulted in any significant structural change, jeopardizing the continent's future sustained growth. This trend has been exacerbated by the decline in growth rates during 2008-2012. The same applies to North Africa (Figure 13), whose MVA grew slower than its GDP. This can be explained by

the fast growing services sector in the close proximity of the European market and by the fact that the mining industry constitutes the main component of industrial activity in a number of economies within this region.

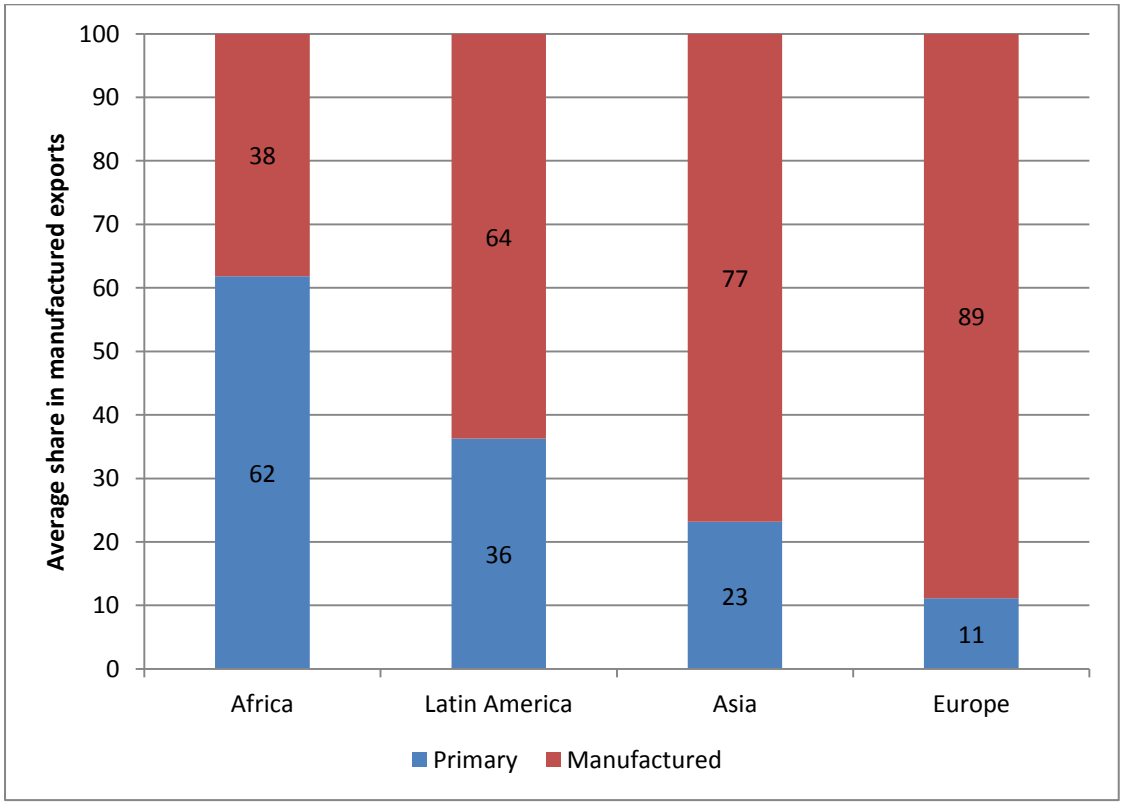
4. State of manufactured exports in North Africa

In this section, we present the North African countries' exports structure according to product type, level of technology and market and product diversification. We also analyse the export performance of North African countries in the new global environment.

4.1. Exports structure

Africa continues to heavily rely on primary exports which accounted for 62 percent of its total exports in 2008-2012 (Figure 14). Africa remains at the mercy of the volatility of world market prices for primary products, mainly raw materials and natural resources. During the reference period, primary products grew comparatively faster due to strong demand from developing countries such as China and India. The share of primary products in Latin America (36 percent) was almost that of African manufactured products (38 percent). On the other hand, manufactured products accounted by far for the largest share of exports of Latin America, Asia and Europe with 64 percent, 77 percent and 89 percent, respectively.

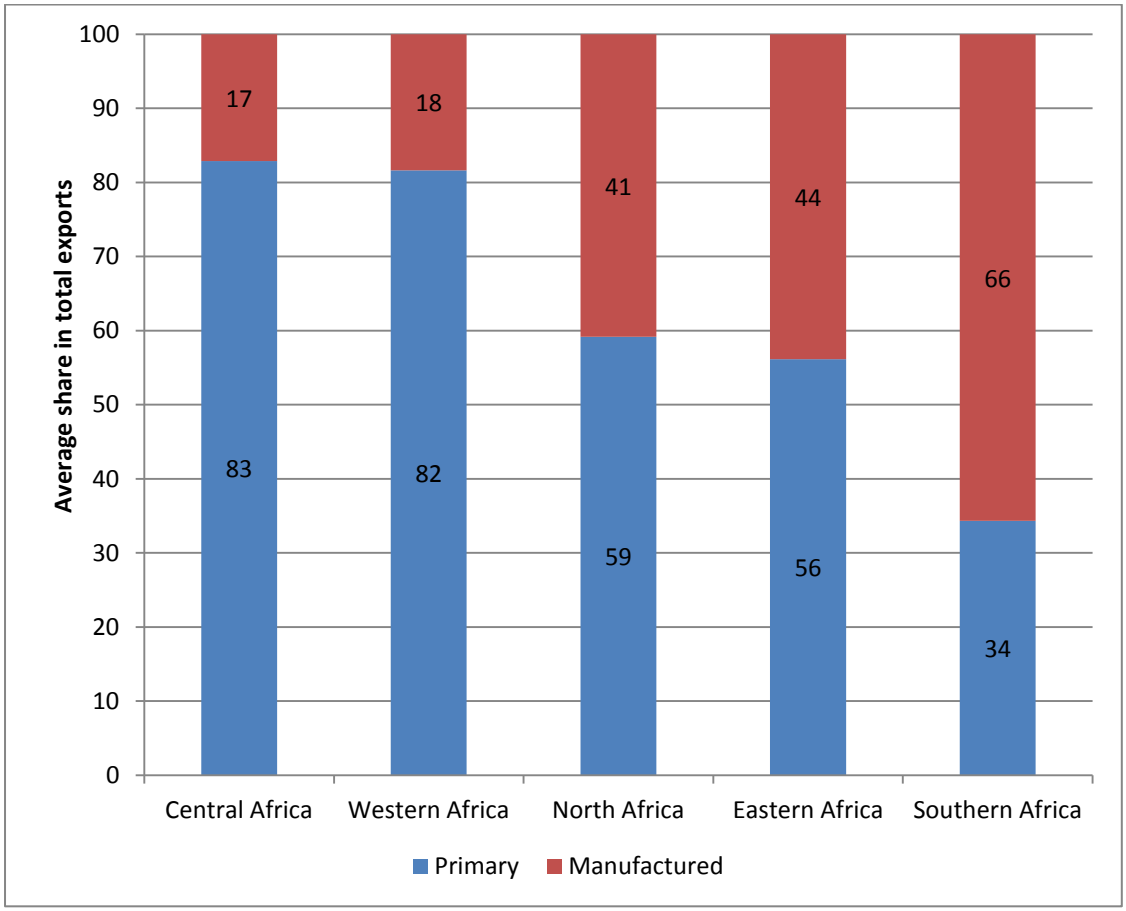
Figure 14 Structure of manufactured exports, 2008 - 2012



Source: UNSD (2014b)

Only South Africa, the African region with the largest industrial base, recorded a higher share of manufactured exports at 66 percent than of primary products at 34 percent (Figure 15). Despite having a comparatively lower industrial fabric, the share of manufactured exports in Eastern Africa at 44 percent was higher than that of North Africa at 41 percent. Both Western Africa and Central Africa, which have a smaller industrial base, heavily rely on primary exports that accounted for more than four-fifths of their exports.

Figure 15 Structure of total exports, 2008 - 2012

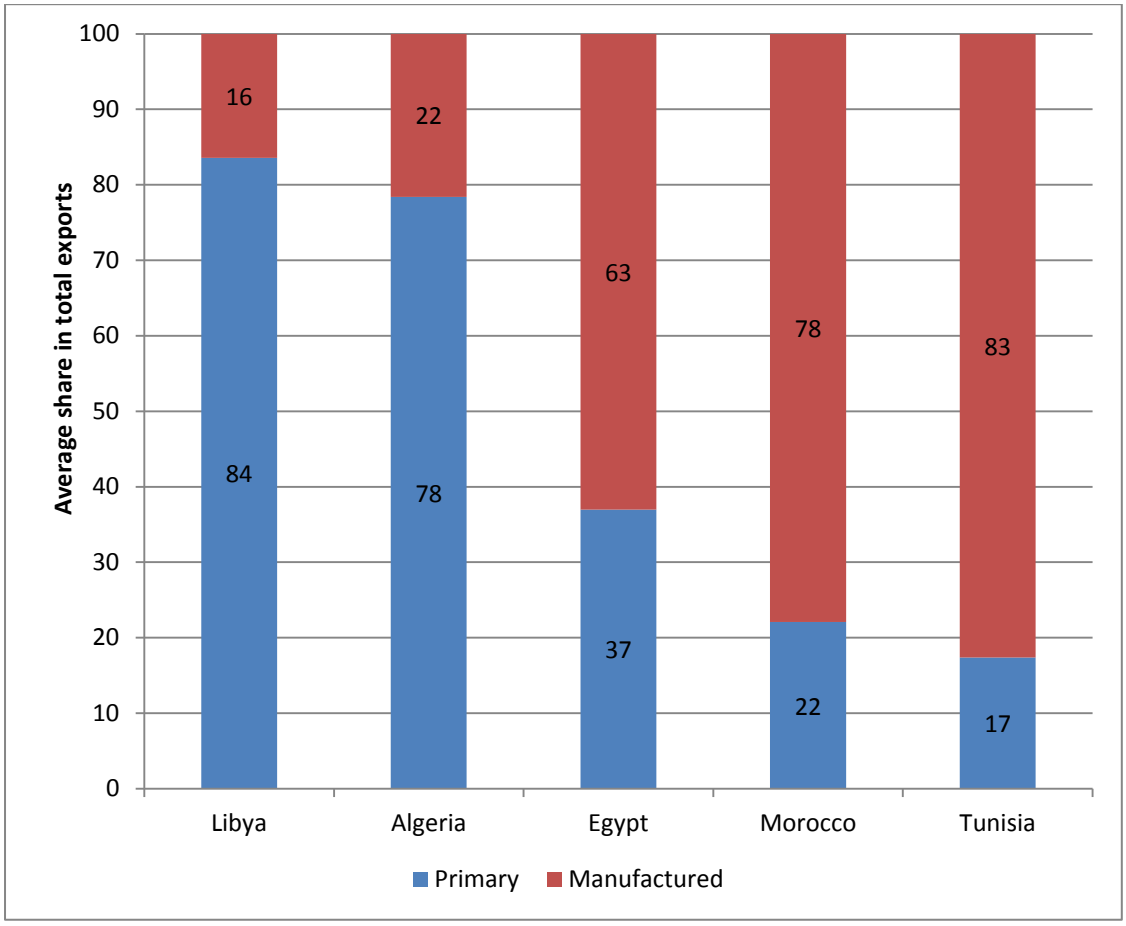


Source: UNSD (2014b)

The structure of exports of North African countries (Figure 16) indicates two differentiated patterns: on the one hand, resource-rich countries, namely Algeria and Libya, heavily rely on the export of natural gas and oil. Primary products accounted for 84 percent of total exports in Libya and for 78 percent in Algeria. The largest part of revenue for both countries derived from natural gas and oil exports.

On the other hand, the three North African countries, namely Egypt, Morocco and Tunisia, endowed with a much larger industrial base displayed a significantly larger share of exports based on manufactured products at 63 percent, 78 percent and 83 percent, respectively.

Figure 16 Structure of total exports, 2008 - 2012



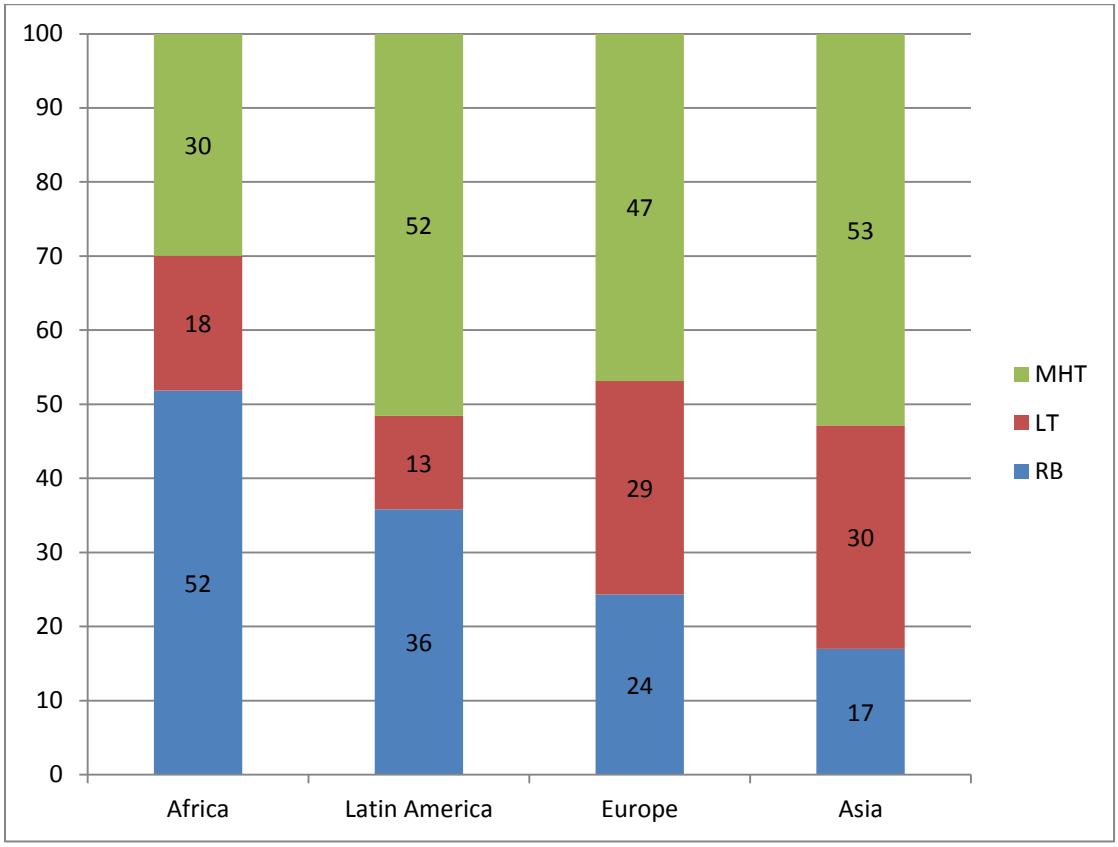
*: For some years, data has been estimated for countries which have not yet reported them, in particular for 2012.
Source: UNSD (2014b)

4.2 Technology structure

High-tech products dominated the exports of world manufactured products with 60 percent. During 2000-2011, resource-based products increased their share in total manufacturing exports due to the growth of manufacturing activities in developing countries that translated into higher demand for raw materials and processed foods for their larger urban population (UNIDO, 2013b).

African exports are dominated not only by primary products; less complex products also constituted a large majority of African manufactured exports (Figure 17). More than two-thirds of African manufactured exports were resource-based (52 percent) and low-technology (18 percent) products. Only 30 percent of African manufactured exports were medium- and high-technology products. This is comparatively lower than 52 percent in Latin America, 47 percent in Europe and 53 percent in Asia.

Figure 17 Technological structure of manufactured exports, 2007 - 2011

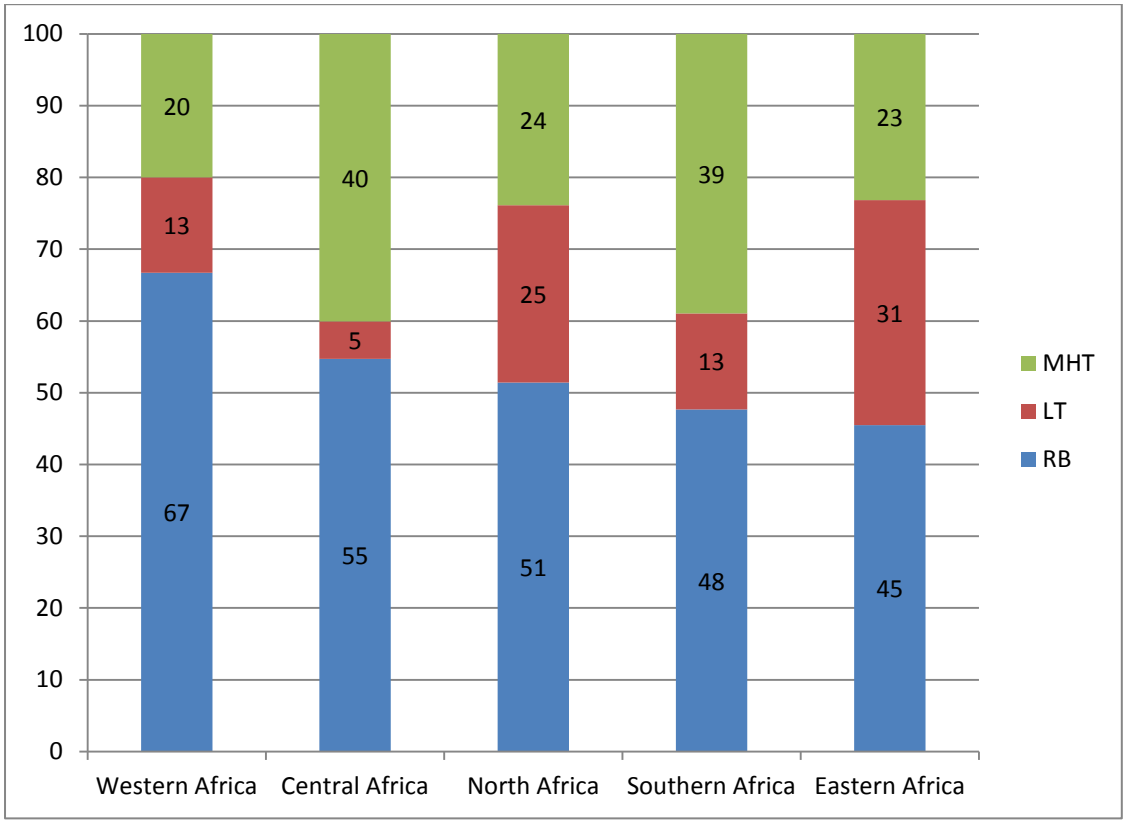


Source: UNSD (2014b)

The share of medium- and high-tech manufactured exports was relatively low in all African regions (Figure 18). The manufactured exports of all African regions were dominated by resource-based products, ranging from 67 percent in Western Africa to 45 percent in Eastern Africa, and low-tech products, which vary from 31 percent in Eastern Africa to 5 percent in Central Africa. The latter with 40 percent but with a tiny share of manufactured exports, and Southern Africa with 39 percent, the African region with the largest share of manufactured exports, are the regions with the highest share of medium- and high-tech manufactured exports. North African manufactured exports showed a comparatively large share in total exports from the region. Resource-based products accounted for 51 percent of manufactured exports followed by low-tech exports with 25 percent.

Resource-based exports in Algeria and Libya accounted for 98.5 percent and 88.5 percent, respectively, of total manufactured exports. Resource-based and low-tech products accounted for more than three-quarters of Egypt's manufactured exports and three-quarters of Moroccan ones. Tunisia, the country in the region with the highest share of manufactured exports, displayed a higher share of medium- and high-tech manufactured exports which accounted for more than four-fifths of manufactured exports.

Figure 18 Technological structure of manufactured exports, 2007 - 2011



Source: UNSD (2014b)

4.3 Dynamic products

Eleven out of the 20 most dynamic manufactured exports, i.e. products with the highest average annual growth rates, were resource-based products (UNIDO, 2013b). High-tech industries, which have higher entry barriers, are not necessarily the most dynamic industries in terms of growth rates. African regions benefitted from high world demand in products such as iron, ore concentrated based metals, fertilizers, petroleum products, ferrous waste and scrap, and recorded higher growth rates than the rate of the world. Demand from metal-intensive industries, e.g. construction and the automotive industry, by developing countries like China and India explains the high dynamism of resource-based products in the world market, benefitting resource-rich countries. The value of African dynamic exports was lower than that of other developing regions at US$ 49.4 billion during 2007-2011 and accounted for 10.83 percent of the world's total compared to Latin America at US$ 83.4 billion and China at US$ 116 billion. The share of African countries in dynamic sectors was as high as one-third of the continent's total exports. The latter remained at US$132 billion in 2007-2011, a much lower level than those of other regions. With 71 percent, developed countries held the largest share of dynamic exports compared to 29 percent by developing countries (Table 9).

Table 8 World's most dynamic manufactured exports above 20 billion, 2007 – 2011 (Source: UNSD, 2014b)

Rank	Code	Technology category	Product	World average annual growth rate 2007-2011(%)	African regions' average annual growth rate					Other selected regions' average annual growth rate		
					Central Africa	Eastern Africa	North Africa	Southern Africa	Western Africa	Europe	South America	South East Asia
1	281	Resource-Based	Iron Ore and concentrates	35.65	0.00	-32.64	10.03	50.55	57.00	34.28	36.41	14.24
2	422	Resource-Based	Fixed vegetable fat and oils, other	27.02	26.42	7.48	72.09	16.41	32.65	54.52	26.50	28.36
3	562	Medium-technology	Fertilizer, Except Group 272	24.39	55.92	-37.72	32.02	9.63	32.34	20.94	19.66	45.12
4	751	High-technology	Office Machines	22.80	20.35	15.42	34.30	28.14	38.17	18.93	12.80	82.40
5	897	Low-technology	Gold, silverware, jewellery, not elsewhere specified	18.28	-1.11	-4.78	-25.47	-5.95	9.18	7.86	-1.21	25.75
6	335	Resource-Based	Residual Petroleum Products	17.98	85.99	-34.11	28.03	8.37	16.21	17.60	2.60	28.76
7	793	Medium-technology	Ships, Boats, Floating Structures	16.51	1.61	-29.17	-2.50	26.46	12.56	5.91	39.58	43.84
8	232	Resource-Based	Synthetic rubber, etc.	15.70	-2.64	-6.58	14.54	12.22	211.18	23.53	8.22	4.46
9	541	High-technology	Medicines, etc.	15.66	-0.10	-12.42	5.07	0.62	6.85	11.08	16.48	16.27
10	334	Resource-Based	Petroleum Products.	14.75	-57.25	-14.60	13.76	2.90	25.95	14.38	28.96	13.84
11	831	Low-technology	Trunk , suitcases, bags	14.56	68.15	-2.56	8.88	11.95	64.87	11.65	2.90	17.29
12	421	Resource-Based	Fixed Vegetable Fat and Oils, soft	14.07	385.09	-3.06	1.50	60.54	7.11	18.35	12.87	54.86
13	61	Resource-Based	Sugar, molasses, honey	13.89	11.07	27.21	45.20	-3.40	16.62	10.72	17.67	35.75
14	342	Resource-Based	Liquefied propane, butane	13.46	-30.53	-73.34	7.14	-0.33	350.36	15.76	2.43	-10.90
15	625	Resource-Based	Rubber tyres, tubes	13.17	-2.06	-33.17	20.45	6.98	-0.62	15.35	10.05	23.42
16	667	Resource-Based	Pearls, precious stones	13.12	-75.98	10.73	-24.73	3.89	-9.85	-20.40	5.40	12.92
17	718	High-technology	Other power generating machinery	13.09	-8.81	-0.80	11.31	33.35	71.01	17.69	19.13	18.91
18	522	Resource-Based	Inorganic chemical elements	12.93	5.21	-30.24	18.70	8.21	33.71	10.51	13.52	13.09
19	871	High-technology	Optical instruments, not elsewhere specified	12.40	-17.69	47.07	23.65	2.45	-6.66	24.18	-4.21	12.74
20	282	Resource-Based	Ferrous waste and scrap	12.25	-68.34	-12.80	-23.21	33.33	13.77	15.97	25.99	6.01

North Africa performed well in some of the world's most dynamic resource-based products, namely fixed vegetable fat and oils, fertilizers, inorganic chemical elements, office machines, residual petroleum products and sugar and molasses (Table 8). Dynamic exports accounted for nearly half of total exports in North, Central and Western Africa. North Africa accounted for more than half of Africa's dynamic exports and 5.67 percent of the world's (Table 9).

Table 9 Values of and shares in world's most dynamic manufactured exports, 2007-2011

Regions or Economies	Total exports (billion)	Total dynamic exports (billion)	Share in world dynamic exports	Share of dynamic exports in total exports
Developed	$7,910.0	$1,100.0	70.79	13.85
Developing	$2,780.0	$459.0	29.21	16.30
Central Africa	$3.6	$1.8	0.38	48.04
Eastern Africa	$3.3	$0.5	0.11	15.07
North Africa	$53.7	$25.8	5.67	47.87
Southern Africa	$57.1	$14.0	3.14	24.51
Western Africa	$14.1	$7.3	1.54	48.89
Africa	$132.0	$49.4	10.83	37.23
Caribbean	$16.0	$7.1	1.59	43.67
Central America	$229.0	$11.4	2.50	4.95
South America	$229.0	$64.9	13.95	27.82
Latin America	$474.0	$83.4	18.04	17.37
China	$1,230.0	$116.0	24.95	9.27
Central Asia	$13.1	$4.0	0.89	30.54
South Asia	$171.0	$65.0	14.19	37.55
South East Asia	$294.0	$43.0	9.26	14.34
West Asia	$80.6	$39.9	8.91	49.86
Other Asia & Pacific	$0.7	$0.3	0.08	46.62
Asia	$1,790.0	$268.0	58.27	14.81
Europe	$389.0	$57.5	12.86	14.73

Source: UNSD (2014b)

4.4 Exports growth

Manufactured trade has grown faster than manufacturing added value since 2006. This can be explained by the increasing production share to multiple suppliers located in different countries. This trend offers new opportunities for developing countries to benefit from international trade by entering international production networks (UNIDO, 2013b).

Despite a reduction in their growth rate which dropped to 3.38 percent in 2008-2012 compared to 13.31 percent in 2004-2008, world manufactured exports peaked at US$ 13,900 billion in 2012. Developing countries continued to increase their share in total manufactured exports from 26.1 percent in 2008 to 31.9 percent in 2012.

Unfortunately, Africa's contribution to world manufactured exports continues to be marginal and stagnated at 1.3 percent during 2008-2012. Together, Southern and North Africa accounted for 77 percent of African manufactured exports in 2012.

Moreover, the share of North Africa in African manufactured exports decreased from 44 percent to 36.4 percent. The decline in demand of the main destinations of North African manufactured exports coupled with the negative impact of the political and social upheaval in the region partly explains this decline. This, despite an overall difficult environment, compares to the dynamism recorded by other regions as their growth rates indicated, e.g. Central America with 18.65 percent, South Asia with 11.43 percent and China with 9.62 percent in 2008-2012. North African manufactured exports were almost evenly distributed among Egypt (27 percent), Morocco (25 percent), Algeria (24 percent) and Tunisia (23 percent).

African manufactured exports per capita reached US$ 250 in 2012. The per capita level in Africa ranged from US$ 34 in Eastern Africa to US$ 465 in Southern Africa. Western (23.13 percent) and Central Africa (19.45 percent) recorded very robust growth rates in 2008-2012 (Table 11).

Table 10 Level and growth of manufactured exports, by country group, in billion US$

Country group	2008	2009	2010	2011	2012*	Average annual growth rate (in %)	
						2004-2008	2008-2012
World	12,200	9,560	11,600	13,700	13,900	13.31	3.38
Developed	8,970	6,950	8,270	9,610	9,460	11.21	1.32
Developing	3,190	2,610	3,350	4,060	4,430	20.49	8.60
Central Africa	4	4	5	5	6	21.12	10.25
Eastern Africa	4	4	4	4	5	23.14	6.76
North Africa	70	52	62	70	68	25.54	-0.76
Southern Africa	67	51	66	79	76	14.26	3.11
Western Africa	15	12	26	34	33	16.82	22.18
Africa	159	122	163	192	187	19.23	4.09
Caribbean	22	11	16	15	16	13.61	-8.57
Central America	248	200	258	303	493	10.62	18.65
South America	268	207	266	330	332	17.56	5.49
Latin America	539	418	539	649	840	13.95	11.74
China	1,370	1,160	1,520	1,830	1,980	25.14	9.62
Central Asia	20	12	15	24	26	35.70	7.29
South Asia	194	186	231	303	299	21.14	11.43
South East Asia	320	278	349	410	447	14.29	8.70
West Asia	102	84	111	128	130	21.61	6.31
Other Asia & Pacific	3	3	3	4	4	12.23	7.10
Asia	2,010	1,720	2,230	2,690	2,880	22.55	9.47
Europe	478	353	417	525	519	21.17	2.06

*: For some years, data has been estimated for countries which have not yet reported them, in particular for 2012.
Source: UNSD (2014b)

Manufactured exports per capita stagnated in North Africa in 2008-2012 and recorded US$ 442 in 2012. This is half of the manufactured exports per capita of developing countries and South East Asia, and seven times less than those of Central America. Despite a decline, Tunisia recorded the highest level of manufactured exports per capita with US$ 1381 in 2012 followed by Morocco with US$ 517.

Table 11 Level and growth of manufactured exports per capita, by country group

Country group	2008	2009	2010	2011	2012*	Average annual growth rate (in %)	
						2004-2008	2008-2012
World	1,971	1,529	1,809	2,148	2,236	12.29	3.20
Developed	7,534	5,798	6,871	7,949	7,841	10.49	1.00
Developing	640	517	642	788	885	19.34	8.44
Central Africa	144	149	173	208	293	14.37	19.45
Eastern Africa	22	22	21	32	34	20.01	11.28
North Africa	435	317	376	431	442	22.42	0.42
Southern Africa	374	276	357	416	465	12.19	5.60
Western Africa	53	45	92	121	121	-6.02	23.13
Africa	196	151	195	241	250	10.58	6.30
Caribbean	1,500	772	1,043	1,103	1,123	30.01	-6.98
Central America	1,722	1,302	1,653	1,919	3,146	10.45	16.27
South America	698	533	677	833	897	16.21	6.48
Latin America	992	752	957	1,142	1,554	13.54	11.88
China	1,032	866	1,132	1,355	1,462	24.48	9.11
Central Asia	954	588	710	1,095	1,208	38.43	6.08
South Asia	137	127	156	201	200	21.73	9.83
South East Asia	650	557	632	804	867	12.95	7.49
West Asia	803	648	631	813	1,616	33.35	19.12
Other Asia & Pacific	1,545	1,296	1,441	390	391	66.89	-29.07
Asia	594	499	623	759	830	22.93	8.73
Europe	2,005	1,463	1,725	2,168	2,138	19.86	1.63

*: For some years, data has been estimated for countries which have not yet reported them, in particular for 2012.
Source: UNSD (2014b)

4.5 Concentration of exports

The concentration index of selected regions at the product and market level (the higher the index, the higher the concentration level) is presented in Figure 19. To calculate the concentration level, we use the Herfindahl index. Using the median product concentration (0.09) and median market concentration (0.11) in 2011 of selected regions, the graph can be divided into four zones to illustrate the relative concentration.

The top-right quadrant includes regions with relatively high product and market concentrations, such as Western Africa which has the top product concentration (0.495) within this group and among the African regions, with two products accounting for more than half of

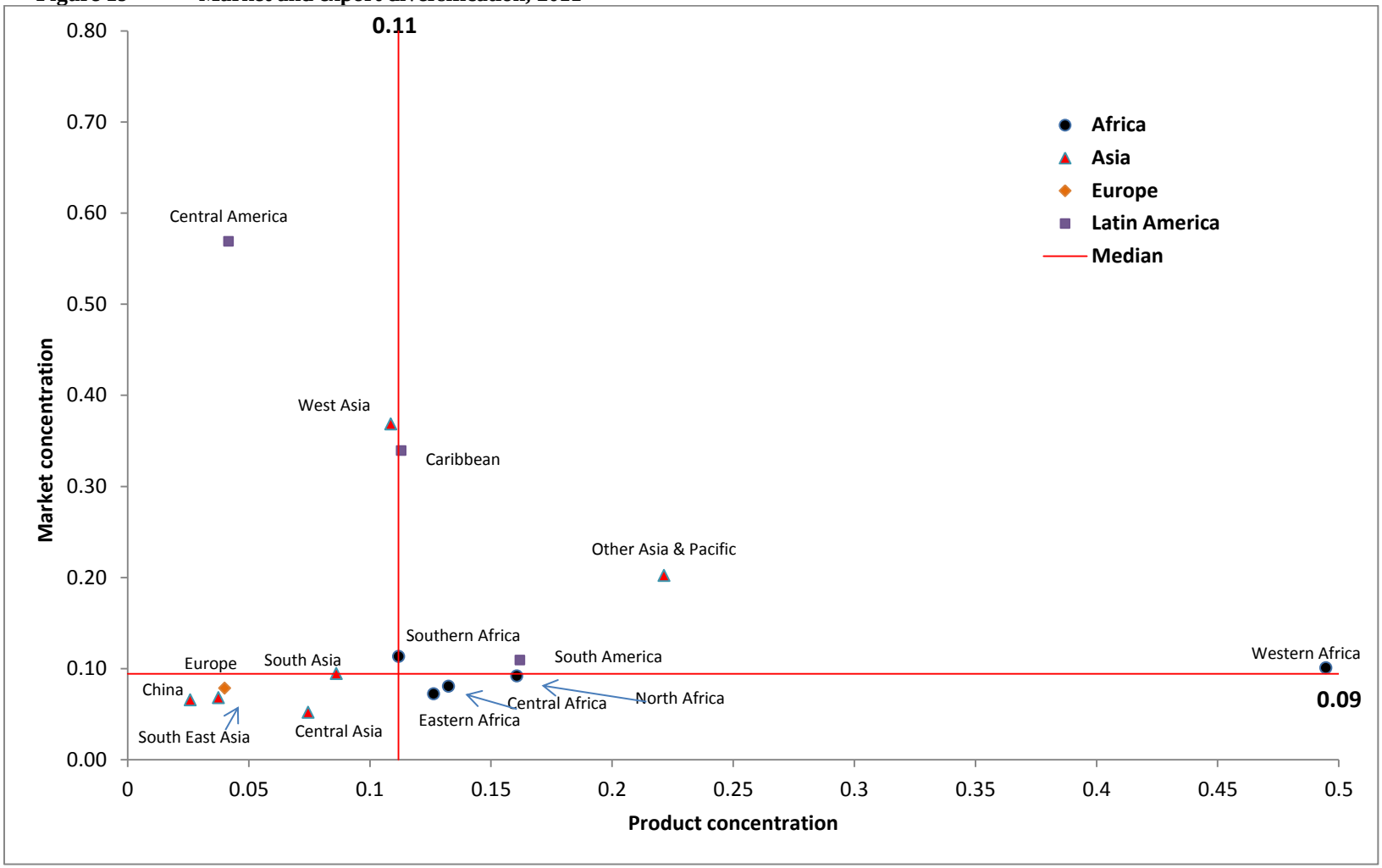
its exports, namely petroleum products (48.1 percent) and petroleum gases (10.66). Other Asian and Pacific and South American countries (0.22) and the Caribbean top the market concentration (0.34) within this group. Southern Africa is also in this group, but recorded the lowest product concentration (0.11) within Africa, with its top nine exports including pearls, precious stones, iron ore concentrates, ore concentrates, pig iron, etc., accounting for 51 percent of its total exports.

Regions in the bottom-right quadrant combine a relatively low market concentration with a high product concentration. Three African regions belong to this group, namely Eastern, Central and North Africa. The latter recorded the highest product concentration (0.16) within this group. Five products, petroleum products, liquefied propane, butane, fertilizers, elements distribution equipment and inorganic chemicals, accounted for more than half of its total exports.

The top-left quadrant brings together regions such as Central America and West Asia with relatively diversified product exports to a few markets.

Finally, the bottom-left quadrant displays the most diversified regions such as Europe and South East Asia. No African region is in this quadrant. All African regions thus showed a relatively strong product concentration and, to a less extent, market concentration.

Figure 19 Market and export diversification, 2011



Source: Calculations based on data from UNSD (2014b)

Figure 20 illustrates the concentration index of African countries at the product and market level, with the median product concentration and median market concentration reaching the same value (0.15) in 2011.

The top-right quadrant includes countries that recorded a strong concentration in both products and markets, such as Mauritania, where one product, iron ore, accounted for 99.6 percent of its exports. Libya's four top exports, petroleum products, liquefied propane, butane and hydrocarbons accounted for more than 85 percent of its exports.

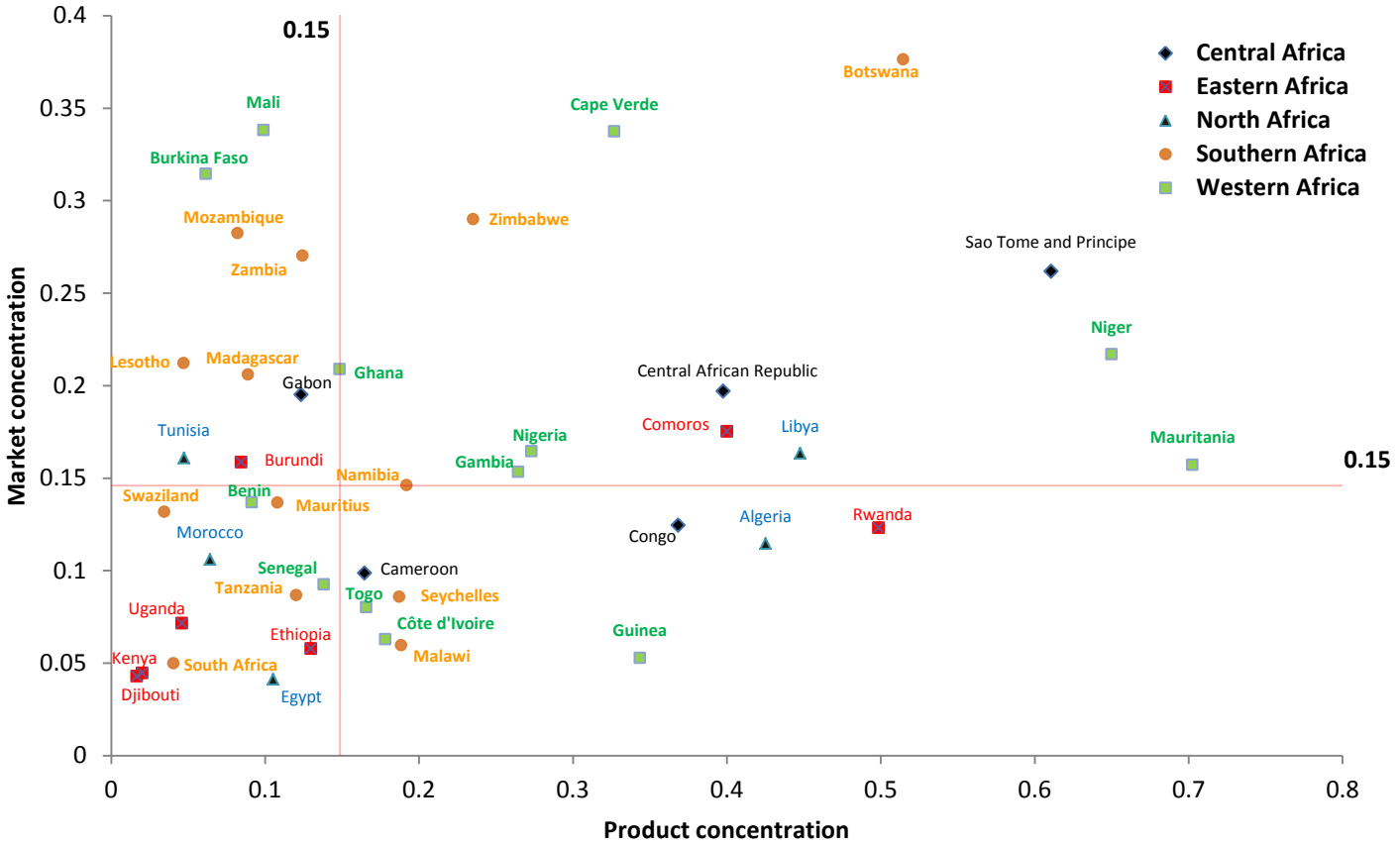
In the bottom-right quadrant, Rwanda, Congo and Nigeria recorded relatively lower market concentrations with a high product concentration. Algeria's two top exports, petroleum products and liquefied propane, accounted for almost 90 percent of its total exports.

The top-left quadrant comprises countries such as Mali, Burkina Faso and Mozambique with relatively less concentrated product exports to a limited number of markets. On the other hand, Tunisia is the North African country with the least product concentration. Its top exports included electrical distribution equipment (12 percent), other textile apparel (11.7 percent) and men's and boys' clothing (5.2 percent).

The bottom-left quadrant includes the most diversified countries such as Morocco and Egypt. Morocco with six products totalling more than half of its exports was led by fertilizers (14.3 percent), electrical distribution equipment (10.5 percent) and inorganic chemical elements (9.9 percent). In Egypt, 13 products accounted for more than half of its exports, led by petroleum products (17.1 percent), fertilizers (7 percent), electrical distribution equipment (4.8 percent) and other textile apparel (3.4 percent). Through its 2009-2015 contract programme *Programme National d'Emergence Industrielle*, Morocco focuses on a selected number of industries: offshore, automobile, aeronautics, electronics, textiles and leather and agro-industries. The value of exports from the automobile industry rose six-fold between 2004 and 2011, and the number of jobs doubled (AfDB et al., 2013)

Our analysis confirms that the overall concentration of North African countries is relatively higher than that of other developing countries in Africa and beyond, particularly in terms of product concentration.

Figure 20 **Market and export diversification, 5-year average (2007 – 2011)**



Source: Calculations based on data from UNSD (2014b)

The share of sub-Saharan African exports to other African markets appear to be more sophisticated than the region's exports to Europe or North America, implying that more growth-enhancing and learning opportunities are possible for its manufacturing sector (see, e.g. Kingler, 2009). Moreover, the share of intra-African trade of manufacturing products is higher than outside Africa and that despite a decline over the last ten years and levels that are comparatively lower than those of other regions, resulting from enhanced competition and an increased interest in commodities due to their rise in price (UNCTAD, 2013). Overall, exports from sub-Saharan Africa have already started reducing their concentration on OECD markets. The diversification primarily to Asia has, however, been led by raw materials, which increases their vulnerability due to the volatility of the price of raw materials. Intra-African trade of added-value products as well as added-value exports to Europe have increased. Diversification targeting emerging markets with products with a higher added value, coupled with investments in trade infrastructure and simplified customs procedures would contribute to sustained economic growth in the region (ITC, 2012).

5. Discussion and conclusion

This paper has presented an overview of the industrial and manufactured exports performance of North Africa. North Africa's MVA growth rates have declined, like in almost all world regions, partly as a consequence of the overall economic downturn starting in 2008. Alarmingly, North Africa recorded the second lowest MVA growth rate of all African regions in 2008-2012. Despite leading in terms of MVA per capita among African regions, North Africa's level falls far behind that of the most dynamic regions of the world. Moreover, the gap increased during 2008-2012 due to the stagnant MVA per capita growth rate experienced by the region.

Resource-based activities account for nearly half of North Africa's MVA. North and Southern African regions display the largest share of medium- and high-tech activities, accounting for 23 percent and 31 percent of their manufacturing, respectively.

Manufacturing plays a modest role in North Africa's economy, and it is comparatively less important than in the most dynamic developing regions and has failed to expand during the last decades. Deindustrialization thus remains a reality in the North Africa region, where MVA accounts for barely one-tenth of its GDP, and the growth of its manufacturing sector lags behind that of its overall economy. The region has failed to spur industrial development and hence to realize significant advances in terms of structural change.

Primary exports still account for almost 60 percent of North Africa's exports, making the region vulnerable to price volatility and international demand. Both manufactured exports and the share of developing countries in the world's total have increased in the last decades. Unfortunately, since 2008, North Africa has followed a different path and its manufactured exports showed the lowest dynamism among African regions. The slowdown of their growth rate during 2008-2012 compared to 2004-2008 was significantly stronger than that of other dynamic regions, and their per capita level stagnated.

Despite performing well in some of the most dynamic world manufactured exports and having reduced, to some extent, its market concentration, North Africa shows the highest product concentration among African regions with five products accounting for more than half of its manufactured exports.

This contrasts with the renewed interest and calls to develop or expand the manufacturing base of North African countries to either diversify their economies away from primary products in the case of resource-rich countries or to boost economic growth in those countries with a larger industrial base.

Increasing demand and rising costs in Asia might offer an opportunity for Africa to sustain its growth through industrialization. Nevertheless, this will not happen spontaneously. Strategies to break into international markets to attract and develop firms' capabilities and support agglomerations will play a key role (Page, 2012),

Social stability and peace, a favourable investment climate, basic infrastructure, communication networks are among the long list of pre-conditions for the industrial sector to flourish and grow.

Experience proves industrial strategies must be aligned and anchored into the overall national development vision and programmes to cover the large array of prerequisites necessary for the structural transformation of an economy through the development of their manufacturing sector in a sustained manner. Issues such as the acquisition of necessary technical, managerial and language skills, technology absorption, development of networks of local suppliers, participation of the private sector, integration into global production networks and productivity enhancement are, among many others, crucial for such a transformation to take place.

Moreover, this needs to take place in a new global setting in which countries that have already industrialized concentrate a large share of the world's production, where new rules of multilateral, regional and bilateral trade limit the room of new industrializing countries for

manoeuvre, where manufacturing processes are divided into tasks distributed among multiple countries and enterprises and their integration into global and regional value chains has already taken place. Moreover, North African markets are fragmented and limited in size.

Industrial development in North Africa may play a leading role in bringing about the necessary structural transformation of the region and ensure the sustained and substantial economic growth necessary to create decent jobs and improve the population's living conditions. Nevertheless, for this to happen the recent performance of the North African industrial sector needs to be reversed and its growth, sophistication and diversification, both in terms of production and trade, need to be boosted.

Bibliography

Abarche, J., GO, D. S and Page, J (2008), Is Africa at a turning point?, Policy Research Working Paper 4519, Africa Region, Washington, The World Bank.

AfDB, OECD, UNDP, ECA (2013) African Economic Outlook "Structural Transformation and Natural Resources" – Regional Edition / Northern Africa, OECD publishing.

Bigsten, A. and Söderbom M. (2011), Industrial Strategies for Economic Recovery and Long-term Growth in Africa, African Development Review 23:2, pp. 161-171.
ITC (2012) Africa's trade potential: Export opportunities in growth markets, Technical Paper**.**

Klinger, Bailey (2009) "Is south–south trade a testing ground for structural transformation?", Center for International Development, Harvard University.

Lall, S. (2005), "Is African industry competing?", Working Paper Number 121, Queen Elizabeth House, University of Oxford.

Page, J. (2011) "Should Africa Industrialize?", United Nations University, UNU-Wider Working Paper No.2011/47, Helsinki.

Page, J. (2012) "Can Africa Industrialize?", Journal of African Economies, Vol. 21, AERC Supplement 2, pp. ii86–ii125.

Szirmai, A. (2012) "Industrialisation as an engine of growth in developing countries, 1950–2005", Structural Change and Economic Dynamics, 3 (4), 406-420.

UNCTAD and UIDO (2011), Fostering Industrial Development in Africa in the New Global Environment, Economic Development in Africa Report 2011, United Nations publication, New York and Geneva.

UNCTAD (2013). Economic Development in Africa Report 2013. Intra-African Trade: Unlocking African Private Sector Dynamism. United Nations publication. New York and Geneva.

UNIDO (2009), Breaking in and Moving up: New Industrial Challenges for the Bottom Billion and the Middle-income Countries, Industrial Development Report 2009, Vienna, Austria.

UNIDO (2013a), The Industrial Competitiveness of Nations, Looking back, forging ahead, Competitive Industrial Performance Report 2012/2013, Vienna, Austria.

UNIDO (2013b), Sustaining Employment Growth: The Role of Manufacturing and Structural Change, Industrial Development Report 2013, Vienna, Austria.

UNIDO (2014a), *Manufacturing Value Added (MVA) Database*, 2014, Vienna, Austria.

UNIDO (2014b), *Industrial Statistics Database 2-digit level, ISIC Revision 3 (INDSTAT2)*, 2014, Vienna, Austria.

UNDP (2013), The rise of the South: Human Progress in a Diverse World, Human Development Report 2013, New York, United States of America.

UNDP (2013). Human Development Index Data, downloaded on 07 October 2013 from https://data.undp.org

UNSD (2014a). Downloaded on 22 January 2014 from http://unstats.un.org/unsd/snaama/downloads/Download-GDPcurrent-USD-countries.xls

UNSD (2014b). Commodity Trade Statistics Database, downloaded on 07 February 2014 from http://comtrade.un.org

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