

The Arab League: Export Earnings and Economic Development

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Abstract

The countries of the Arab League paint a diverse picture of economic (and social) performance and export-earnings performance. While Arab countries have formed numerous alliances for one reason or another, the League of Arab States, more popularly known as the Arab League, is the dominant one. One can, however, see a social, political, economic development divide among them. Focusing on the export performance of these countries during the period from 1988 through 2012, we examine stability of export earnings as well as exports' risk-return profile. The single index model from the modern portfolio theory is used for empirical examination. The results indicate that these countries exhibit a corresponding performance divide for export-earnings. The oil and natural gas exporters show a much higher sensitivity than non-oil exporters. Exporters with a higher proportion of manufactured products show a much lower sensitivity. Examination of risk-return tradeoff reveals a more complicated picture: Qatar, UAE and Bahrain show the highest Sharpe ratio which is a measure of performance based on total fluctuations whereas Lebanon, Jordan and Tunisia show the highest Treynor ratio which is a measure of performance based on market-fluctuations. The study concludes that different socioeconomic development policies are needed for developed and developing countries of the Arab League. Several structural challenges facing these countries are pointed out and discussed to improve economic and export performances. These challenges can be overcome only with sustained resolute action emanating from the highest level of political control.

Keywords

Commodities, Export Diversification, Portfolio Model, Single Index Model, Export Performance, Development Policies

1. Introduction

The League of Arab States (LAS), more commonly known as the Arab League, is

the oldest regional Arab organization founded in Cairo in March 1945 by *six* Arab countries in and around North Africa, the Horn of Africa, and Southwest Asia¹. The countries were Kingdom of Egypt, Kingdom of Iraq, Transjordan (renamed Jordan in 1949), Lebanon, Saudi Arabia and Syria. A *seventh* Arab country, Yemen, joined as a member in May 1945. Over the years the membership has grown as pan-Arabism sentiment² prevailed; currently, the League has 22 members as follows and repeated in **Table 1**: (1) Algeria, (2) Bahrain, (3) Comoros, (4) Djibouti, (5) Egypt, (6) Iraq, (7) Jordan, (8) Kuwait, (9) Lebanon, (10) Libya, (11) Mauritania, (12) Morocco, (13) Oman, (14) Palestine, (15) Qatar, (16) Saudi Arabia, (17) Somalia, (18) Sudan, (19) Syria, (20) Tunisia, (21) United Arab Emirates (UAE), and (22) Yemen.

Table 1 additionally shows that these 22 Arab countries have actually formed numerous alliances for sociopolitical and socioeconomic purposes. The Council of Arab Economic Unity (CAEU) comprising 18 countries was formed in 1964. The Organization of Arab Petroleum Exporting Countries (OAPEC) today comprising 11 countries was formed in 1968. The Arab Monetary Fund (AMF) was formed in 1977 which is composed of all members of LAS, except Comoros³. The Cooperation Council for the Arab States of the Gulf (originally and currently known as Gulf Cooperation Council (GCC)) comprising six countries was formed in 1981. The Arab Maghreb Union (AMU) comprising five countries was formed in 1989. The Greater Arab Free Trade Area (GAFTA) comprising 14 countries was formed in 1997. The Agadir Agreement (AgaAg) comprising four countries was formed in 2004.

Article 2 of the Pact of the Arab League States (of March 22, 1945) states the purposes of LAS. The article states *inter alia*,

¹This formal bloc must be distinguished from the group of countries called Middle East and North Africa (MENA). MENA has no well-accepted definition and the acronym is often used in academic, military planning, and disaster relief. Wikipedia's list includes 18 countries (<http://en.wikipedia.org/wiki/MENA>). The World Bank, on the other hand, has a directorate devoted to MENA and it (<http://www.worldbank.org/en/region/mena>) defines the group to include 14 countries (1) Algeria, (2) Djibouti, (3) Egypt, (4) Iran, (5) Iraq, (6) Israel, (7) Jordan, (8) Lebanon, (9) Libya, (10) Morocco, (11) Syria, (12) Tunisia, (13) West Bank and Gaza (or Palestine State), (14) Yemen. MENA-8 is the World Bank's designation for eight developing countries (oil importers: Egypt, Tunisia, Lebanon and Jordan; oil exporters: Iran, Iraq, Yemen and Libya). The Gulf Cooperation Council (GCC) countries play a major role in MENA through aid, investment, tourism revenues and remittances. In some reports, however, the World Bank includes the GCC countries in MENA (<http://documents.worldbank.org/curated/en/2014/10/20272046/mena-economic-monitor-corrosive-subsidies>).

²Pan-Arabism is an ideology advocating the unification of the Arab countries of North Africa and West Asia from the Atlantic Ocean to the Arabian Sea. Often this group is referred to as the Arab World. The ideology is closely connected to Arab Nationalism, which asserts that the Arabs constitute a single nation. Its popularity was highest during the decades of 1950s and 1960s. Advocates of pan-Arabism have often espoused socialist principles and strongly opposed Western political involvement in the affairs of the Arab world. The advocates sought to insulate the Arab World from outside forces by forming internal alliances for sociopolitical cooperation and, to a lesser extent, economic cooperation. (See Wikipedia at <http://en.wikipedia.org/wiki/Pan-Arabism> and references therein.)

³The Arab Monetary Fund is somewhat unique in its accounting system. The Arab Accounting Dinar (AAD), its unit of accounting, is equivalent to three SDRs. (<http://www.medea.be/en/themes/economy-and-trade/arab-monetary-fund/>)

Table 1. Arab organizations and groupings.

OPEC (1960)	OAPEC (1968)	LAS (1945)	CAEU (1964)	GCC (1981)	AMU (1989)	GAFTA (1997)	AgaAg (2004)	MENA (2007)
Algeria	Algeria	Algeria	Algeria		Algeria			Algeria
	Bahrain	Bahrain	Bahrain	Bahrain		Bahrain		
		Comoros						
		Djibouti						Djibouti
	Egypt	Egypt	Egypt			Egypt	Egypt	Egypt
Iraq (FM)	Iraq	Iraq	Iraq			Iraq		Iraq
		Jordan	Jordan				Jordan	Jordan
Kuwait (FM)	Kuwait (FM)	Kuwait	Kuwait	Kuwait		Kuwait		
		Lebanon	Lebanon			Lebanon		Lebanon
Libya	Libya (FM)	Libya	Libya		Libya	Libya		Libya
		Mauritania			Mauritania			
		Morocco	Morocco		Morocco	Morocco	Morocco	Morocco
		Oman	Oman	Oman		Oman		
		Palestine	Palestine					West Bank and Gaza
Qatar	Qatar	Qatar	Qatar	Qatar		Qatar		
Saudi Arabia (FM)	Saudi Arabia (FM)	Saudi Arabia	Saudi Arabia	Saudi Arabia		Saudi Arabia		
		Somalia						
		Sudan	Sudan			Sudan		
	Syria	Syria	Syria			Syria		Syria
	Tunisia	Tunisia	Tunisia		Tunisia	Tunisia	Tunisia	Tunisia
United Arab Emirates	United Arab Emirates	United Arab Emirates	United Arab Emirates	United Arab Emirates		United Arab Emirates		
		Yemen	Yemen					Yemen
7	11	22	18	6	5	14	4	14

OPEC's non-Arab members are five, namely, Angola, Ecuador, Iran, Nigeria, and Venezuela. FM denotes founding member. The World Bank includes Iran and Israel in the regional grouping of MENA.

It also has among its purposes a close co-operation of the member States with due regard to the structure of each of these States and the conditions prevailing therein, in the following matters:

- (a) Economic and financial matters, including trade, customs, currency, agriculture and industry;
- (b) Communications, including railways, roads, aviation, navigation, and posts and telegraphs;
- (c) Cultural matters;
- (d) Matters connected with nationality, passports, visas, execution of judgments and extradition;
- (e) Social welfare matters;

(f) Health matters.

It is worth noting that the Pact explicitly and specifically emphasizes matters of trade, economic development, infrastructure, telecommunications, travel and tourism and social development. It is also worth noting that the Pact places the economic and financial matters at the top of the list. The Pact may have been motivated by political and sovereignty concerns; the delegates, however, recognized the importance of socioeconomic development through trade, internal and external.

Like LAS, the other alliances were motivated by a host of factors, though trade and development were not ignored. GAFTA, however, was formed explicitly as a trading bloc. The emphasis on trade and economic development must be considered important factors because not all Arab countries are oil-producing, not all Arab oil-producing countries are members of OPEC, and lastly, not all non-Arab oil-producing countries are members of OPEC^{4,5}.

While the LAS countries desire more trade and development, both of these goals depend on the countries' natural endowments and nurtured resources. The countries have striven for development on different fronts through numerous organizations. An important element of economic development is exports.

In this paper, we wish to examine the performance of exports of the LAS countries. It would be quite tempting to examine the performance of GAFTA or CAEU or GCC. As we will see in the next sections, the exports of the LAS countries are widely different, yet some common themes emerge in that most of their exports are commodities (agricultural or extractive and intermediate goods). Only a few countries have portfolios with a large contribution from manufactured products. The exports of the LAS countries need to be placed in a larger context for evaluation as will be shown in this paper. Neither the export earnings nor the volatility of exports or earnings can be evaluated in isolation; they must be evaluated together.

Our study is different from the literature on exports. We are examining the behavior of total exports of the countries belonging to a regional bloc. The sample includes oil-exporting countries *and* non-oil-exporting countries. Only eight, out of 22, countries (Algeria (98.3%), Iraq (98.8%), Kuwait (91.6%), Libya (94%), Oman (76.6%), Qatar (92.2), Saudi Arabia (84.1%), and Yemen (89.1%)) have oil

⁴The Organization of the Petroleum Exporting Countries (OPEC) was founded in Baghdad, Iraq, with the signing of an agreement in September 1960 by five countries, namely, Islamic Republic of Iran, Iraq, Kuwait, Saudi Arabia and Venezuela. They were to become the Founder Members of the Organization.

These countries were later joined by Qatar (1961), Indonesia (1962), Libya (1962), the United Arab Emirates (1967), Algeria (1969), Nigeria (1971), Ecuador (1973), Gabon (1975) and Angola (2007).

From December 1992 until October 2007, Ecuador suspended its membership. Gabon terminated its membership in 1995. Indonesia suspended its membership effective January 2009.

Currently, the Organization has a total of 12 Member Countries.

⁵The other top 25 non-OPEC oil-producing countries are (1) Russia, (2) U.S., (3) China, (4) Mexico, (5) Canada, (6) Norway, (7) Brazil, (8) Kazakhstan, (9) U.K., (10) Azerbaijan, (11) Indonesia, (12) Oman, (13) India, (14) Colombia, (15) Argentina, (16) Malaysia, (17) Egypt, (18) Australia, (19) Sudan, (20) Syria, (21) Syria, (22) Equatorial Guinea, (23) Yemen, (24) Vietnam, (25) Congo.

(<http://peak-oil.org/peak-oil-reference/peak-oil-data/production-and-peak-dates-by-country/>)

exports larger than 75% of total exports. The other countries export many more items. Because of the emphasis of the study, we need not be concerned about the causes of changes in total exports or about the changes in underlying currencies⁶ or relative fluctuations in currencies or terms of trade. We are using aggregate numbers; therefore it is not necessary to try to separate the effects of quantity versus price. The results and interpretations thereof will be in broader terms too.

We show that the LAS countries exhibit an export-earnings or performance divide similar to their economic development divide. The oil and natural gas exporters show a much higher sensitivity than non-oil exporters. Exporters with a higher proportion of manufactured products show a much lower sensitivity. Examination of risk-return tradeoff reveals a more complicated picture: Qatar, UAE and Bahrain show the highest Sharpe ratio whereas Lebanon, Jordan and Tunisia show the highest Treynor ratio. The study concludes that different socioeconomic development policies are needed for developed and developing countries of the Arab League.

The contributions of the paper are manifold. First and foremost is that the study employs a modern method, single index model, to evaluate the performance of exports of a prominent politico-economic bloc. The socio-politico-economic diversity of this bloc is immense, even though they are “united” by some form of ideology. Second, the study examines not only the stability of export earnings, but also the risk-return tradeoff of export portfolios. Third, the study juxtaposes developed and developing countries of the bloc. Fourth, the study provides in one single place most of the relevant socioeconomic indicators to evaluate the stage of development of constituent countries. Fifth, the study expostulates with the governments and authorities of these countries the policies necessary for the bloc to pursue either individually or as a group.

This paper is organized as follows. Section 2 discusses the global context of the exports of the LAS countries. Section 3 discusses the socioeconomic picture of LAS. Section 4 discusses the export sector of LAS. Section 5 discusses data, methods and hypotheses. Section 6 discusses results. Section 7 discusses implications for policies for the LAS countries and points out some caveats of this research. Section 8 discusses the challenges faced by the LAS countries. Section 9 concludes the paper.

2. Foreign Direct Investment & Exports Trends in the Global Context

Eight years after the start of the financial crisis in 2008, the global economy in 2016 is still struggling to recover its growth rate of the pre-crisis years. The growth rates in gross domestic product (GDP) for a large majority of the countries are on a slow recovery path, with an expected growth of less than three percent for the global economy in 2015 ([1] [2]). Even high-growth countries such as China are moving into a cycle of single-digit growth rates, well below the two-digit growth rates of their the pre-crisis years ([3] [4] [5]).

⁶We are aware that crude and petroleum products are quoted and traded in USD.

In 2016, several forces and trends, such as the “BREXIT” Referendum, are shaping a lower-than-expected rate of economic growth for several economic regions around the globe: (a) low commodity prices; (b) lower levels of global trade; and (c) lack of economic confidence, not to mention some of the problems and remedies of the financial crisis, viz., (d) house-price bubble and subsequent burst, (e) overleveraged individuals, households and institutions and subsequent deleveraging; (f) consumers reluctant to spend and banking institutions reluctant to lend; (g) corporations hoarding earnings and cash including huge borrowings from the bond markets. These trends started in the U.S. and spread globally and hardly a country was spared. They are affecting not only the LAS non-oil exporting countries but also the GCC oil-exporting countries. In particular lower prices for petroleum products and natural gas as well as geopolitical conflicts have hampered and are delaying the economic recovery for numerous LAS countries ([6]). For instance, similar to the western countries, some of the members of GCC introduced fiscally stimulus policies to offset lower prices of oil and natural gas ([2] [7] [8]).

The global foreign direct investment (FDI) saw a substantial decline of about eight percent in 2014. This decline has affected the LAS countries in a myriad of ways. The issues of national security in the region have dramatically cut the FDI flows to Syria and Yemen and to other neighboring Arab countries ([9]). Traditionally, the U.S. and Western European countries have been a major source of the FDI. A slow growth in the euro zone has slowed the FDI flows to the region. Saudi Arabia, the region’s largest recipient of the FDI, has seen a modest decline in FDI. Egypt has seen a more dramatic decline in the FDI. Iraq, on the other hand, has seen resurgence in the FDI, mostly targeted at Kurdistan. The lack of intra-bloc economic integration can be starkly observed in the extreme concentration of the intra-LAS FDI. For instance, the bulk of the intra-LAS FDI, close to 65 percent, are allocated to Saudi Arabia, UAE, and Qatar, further stressing the economic recovery within the region ([10] [11]).

The LAS countries have found themselves under tremendous external pressure, either from a slowdown of the FDI or from lower prices for their main exporting products and services such as tourism because growth in these countries is heavily influenced by the countries’ ties to global markets either via FDI or via international trade of products and services. Moreover, the small size of their local markets, the relative paucity of the intra-LAS trade and of the intra-LAS FDI are not enough to counteract global economic fluctuations. For instance, data for 2012 for eight MENA countries show that the intra-regional FDI accounted for only 24 percent of all the FDI flowing into these countries while intra-regional trade flows were approximately nine percent ([12] [13]). The World Bank paints a picture of MENA region in not-so-buoyant words (<http://www.worldbank.org/en/region/mena/overview>):

Growth in MENA is expected to slow down in 2015 and range between 3.1 ... estimated by the World Bank, ... below the already low growth of last year and continue on the same path in 2015. The main reasons for the con-

tinued, sluggish growth are: prolonged conflict and political instability in Syria, Iraq, Libya and Yemen; low oil prices that are dragging down growth in oil exporters; and the slow pace of reforms that is standing in the way of a resumption of investment. The continuation of this situation will significantly hurt the overall unemployment rate, now standing at 12%, and poverty in the region.

The group of oil exporters is estimated to grow by around 2.9% in 2015 with growth stagnating in developing oil exporters, at 1%. ... [the] World Bank estimates that growth in developing oil exporters in MENA ... [will] drop to 1% compared to 6% prior to the oil collapse. Fiscal deficits are mounting, leaving the region with a deficit of 8% of GDP in 2015. ... Growth in developing MENA countries will stay at 2% in 2015.

[The] World Bank is afraid that the deterioration in the fiscal situation in the Gulf States because of a prolonged slump in oil price would cause a deterioration in remittance outflows from the GCC countries to the rest of the region, mainly Egypt, Yemen and Jordan. In addition, the World Bank is afraid that aid flows from GCC to the MENA countries may also decline⁷.

While the LAS countries are diverse in sociopolitical dimensions, most of them may be classified as emerging economies and middle-income countries. For these countries to make economic progress, they need to overcome structural challenges some of which are poor education system, high unemployment, low female labor force participation, poor private sector development, low investments in innovation and R&D systems, weak governance, poor public sector, cronyism and nepotism, governmental protection against competition, widespread corruption. One of the traditional methods of meeting such challenges is through export sector.

Table 2 provides aggregate exports of the LAS countries. The broad categories are (1) All food items, (2) Agricultural raw materials, (3) Fuels, (4) Ores, metals, precious stones, non-monetary gold and (4) Manufactured exports. An additional column shows the percent of high-tech exports as percent of manufactured exports. The table shows that

- 1) Four countries have exports of food items greater than 25%, viz., Comoros at 33.7%, Djibouti at 37.9%, Somalia at 56.1% and Syria at 29.5%.
- 2) Only one country has exports of agricultural raw materials greater than 25%, viz., Somalia at 33.1%.
- 3) Thirteen countries have exports of fuels greater than 25%, viz., Algeria at 98.3%, Bahrain at 33.9%, Egypt at 30%, Iraq at 98.8%, Kuwait at 91.6%, Libya at 94%, Oman at 76.6%, Qatar at 92.2%, Saudi Arabia at 84.1%, Sudan at 85%, Syria at 27.6%, UAE at 57.2% and Yemen at 89.1%.
- 4) Three countries have exports of ores, metals, etc., greater than 25%, viz., Bahrain at 38.3%, Lebanon at 28.6% and Mauritania at 58.3%.
- 5) Eight countries have exports of manufactured goods greater than 25%, viz.,

⁷The World Bank's assessment for MENA countries in conflict is dire: "For ... Iraq, Libya, Yemen, and Syria, economic prospects are grim. Growth is expected to turn negative in 2015 [for Iraq] following a contraction of 0.5% in 2014. Libya is in recession ... [whose] economy is estimated to have contracted by 24% in 2014, following a contraction of about 14% in 2013."

Table 2. Aggregate exports (in percent).

Country	All Food Items	Agricultural Raw Materials	Fuels	Ores, Metals, Precious Stones, Non-Monetary Gold	Manufactured Products	High-Tech Exports (% of Manufactured Products)
Algeria	0.5	0.0	98.3	0.3	0.9	0
Bahrain	3.6	0.5	33.9	38.3	22.8	0
Comoros	33.7	0.4	0.0	1.0	64.9	0
Djibouti	37.9	5.9	5.1	12.6	33.4	0
Egypt	14.1	2.7	30.0	11.2	41.9	1
Iraq	0.2	0.1	98.8	0.3	0.6	0
Jordan	14.4	0.4	0.6	15.5	68.7	3
Kuwait	0.2	0.2	91.6	0.9	7.1	0
Lebanon	16.2	1.2	0.2	28.6	53.5	2
Libya	0.2	-0.1	94.0	2.3	2.3	0
Mauritania	23.2	-0.3	5.3	58.3	0.7	0
Morocco	19.9	1.2	4.6	11.3	63.0	6
Oman	4.0	0.0	76.6	3.6	15.7	3
Palestine						
Qatar	0.0	0.0	92.2	1.2	6.4	0
Saudi Arabia	1.4	0.0	84.1	0.8	13.5	1
Somalia	56.1	33.1	0.1	0.5	10.1	0
Sudan	4.3	1.5	85	8.1	1.1	1
Syria	29.5	1.3	37.6	3.4	28.1	1
Tunisia	9.6	0.6	14.2	1.7	73.9	6
United Arab Emirates	3.7	0.2	57.2	16.7	21.9	0
Yemen	6.1	0.3	89.1	2	2.5	0

Source: UNCTAD, 2013; World Bank, 2015.

Comoros at 64.9%, Djibouti at 33.4%, Egypt at 41.9%, Jordan at 68.7%, Lebanon at 53.5%, Morocco at 63%, Syria at 28.1% and Tunisia at 73.9%.

- 6) Nine countries have modest exports of high-tech products (as percent of manufactured products), viz., Egypt at 1%, Jordan at 3%, Lebanon at 2%, Morocco at 6%, Oman at 3%, Saudi Arabia at 1%, Sudan at 1%, Syria at 1% and Tunisia at 6%.

The broad categories while informative are not insightful. **Table 3** provides top exports of the LAS countries. The top exports are defined to be not less than one percent of total exports of a country. Only the first exported item which is less than one percent is given in the table for comparison and is not included in the total given in millions of US dollars or in percentages. The diversity of exported items is revealing of the natural endowments and the industrial capabilities for intermediate goods. Oil-exporters, on the whole, have dominant epo-

Table 3. Exports (in MM USD and %).

Country Item No.	HS Code	Item	Value (MM USD)	Percent of Total Exports
Algeria				
1	2709	Crude Petroleum	31,370	44.99%
2	2711	Petroleum Gas	25,703	36.86%
3	2710	Refined Petroleum	10,071	14.44%
4	2707	Coal Tar Oil	849	1.22%
5	2814	Ammonia	614	0.88%
Total (≥1%)			67,992	97.51%
Bahrain				
1	2710	Refined Petroleum	4672	57.64%
2	7601	Raw Aluminium	862	10.64%
3	2711	Petroleum Gas	331	4.08%
4	2601	Iron Ore	267	3.30%
5	7606	Aluminium Plating	249	3.07%
6	3102	Nitrogenous Fertilizers	213	2.63%
7	7614	Stranded Aluminium Wire	182	2.25%
8	7605	Aluminium Wire	154	1.90%
9	8415	Air Conditioners	93	1.15%
10	6204	Non-Knit Women's Suits	81	1.00%
11	7203	Iron Reductions	71	0.88%
Total (≥1%)			7105	87.66%
Comoros				
1	907	Cloves	27	40.09%
2	303	Non-fillet Frozen Fish	17	25.86%
3	8908	Scrap Vessels	9	13.60%
4	3301	Essential Oils	5	7.42%
5	905	Vanilla	3	3.97%
6	7204	Scrap Iron	1	1.80%
7	8703	Cars	1	1.16%
8	302	Non-fillet Fresh Fish	1	1.06%
9	7311	Iron Gas Containers	1	1.03%
10	304	Fish Fillets	1	0.75%
Total (≥1%)			64	95.99%
Djibouti				
1	106	Other Animals	12	31.79%
2	901	Coffee	5	12.65%
3	102	Bovine	3	9.17%

Continued

4	713	Dried Legumes	2	4.54%
5	7204	Scrap Iron	2	4.07%
6	8483	Transmissions	1	2.92%
7	8504	Electrical Transformers	1	2.67%
8	1001	Wheat	1	2.35%
9	4011	Rubber Tires	1	2.15%
10	4103	Other Hides and Skins	1	2.00%
11	8474	Stone Processing Machines	1	1.82%
12	8429	Large Construction Vehicles	1	1.75%
13	8539	Electric Filament	1	1.73%
14	4102	Sheep Hides	1	1.60%
15	1102	Cereal Flours	0	1.31%
16	4106	Tanned Goat Hides	0	1.29%
17	8716	Trailers	0	0.97%
Total (≥1%)			32	83.81%

Egypt

1	2709	Crude Petroleum	6562	17.85%
2	2711	Petroleum Gas	3731	10.15%
3	2710	Refined Petroleum	3165	8.61%
4	7108	Gold	1645	4.48%
5	3102	Nitrogenous Fertilizers	1263	3.43%
6	8544	Insulated Wire	761	2.07%
7	805	Citrus	595	1.62%
8	6203	Non-Knit Men's Suits	538	1.46%
9	2510	Calcium Phosphates	436	1.19%
10	2814	Ammonia	410	1.11%
11	7409	Copper Plating	376	1.02%
12	406	Cheese	367	1.00%
13	7208	Hot-Rolled Iron	359	0.98%
Total (≥1%)			19,849	53.99%

Iraq

1	2709	Crude Petroleum	56,723	99.13%
2	2710	Refined Petroleum	166	0.29%
Total (≥1%)			56,723	99.13%

Jordan

1	2510	Calcium Phosphates	957	10.65%
2	3104	Potassic Fertilizers	541	6.02%
3	3004	Packaged Medicaments	503	5.60%

Continued

4	3105	Mixed Mineral or Chemical Fertilizers	302	3.36%
5	6110	Knit Sweaters	284	3.16%
6	3003	Unpackaged Medicaments	255	2.84%
7	702	Tomatoes	242	2.69%
8	6204	Non-Knit Women's Suits	227	2.53%
9	3102	Nitrogenous Fertilizers	219	2.44%
10	7108	Gold	197	2.20%
11	8544	Insulated Wire	162	1.80%
12	2809	Phosphoric Acid	147	1.64%
13	104	Sheep and Goats	145	1.61%
14	3901	Ethylene Polymers	109	1.21%
15	809	Pitted Fruits	104	1.15%
16	2709	Crude Petroleum	100	1.12%
17	2834	Nitrites and Nitrates	97	1.08%
18	2801	Halogens	95	1.06%
19	6105	Knit Men's Shirts	95	1.06%
20	3923	Plastic Lids	93	1.04%
21	6104	Knit Women's Suits	90	1.00%
22	7113	Jewellery	87	0.97%
Total (≥1%)			4964	55.26%

Kuwait

1	2709	Crude Petroleum	52,939	66.82%
2	2710	Refined Petroleum	17,943	22.65%
3	2711	Petroleum Gas	3581	4.52%
4	2902	Cyclic Hydrocarbons	1436	1.81%
5	3901	Ethylene Polymers	905	1.14%
6	2905	Acyclic Alcohols	837	1.06%
7	3102	Nitrogenous Fertilizers	343	0.43%
Total (≥1%)			77,643	98.00%

Lebanon

1	7108	Gold	1398	27.74%
2	7102	Diamonds	298	5.90%
3	7113	Jewellery	296	5.88%
4	8502	Electric Generating Sets	158	3.14%
5	7404	Scrap Copper	137	2.73%
6	7204	Scrap Iron	115	2.27%
7	4901	Brochures	94	1.87%
8	3103	Phosphatic Fertilizers	83	1.65%

Continued

9	2710	Refined Petroleum	72	1.44%
10	8418	Refrigerators	65	1.30%
11	2809	Phosphoric Acid	58	1.15%
12	3920	Raw Plastic Sheeting	52	1.04%
13	9403	Other Furniture	52	1.04%
14	2008	Other Processed Fruits and Nuts	51	1.01%
15	2202	Flavored Water	45	0.90%
Total (≥1%)			2932	58.16%
Libya				
1	2709	Crude Petroleum	43,244	88.16%
2	2711	Petroleum Gas	3236	6.60%
3	2710	Refined Petroleum	2252	4.59%
4	7203	Iron Reductions	71	0.15%
Total (≥1%)			48,731	99.35%
Mauritania				
1	2601	Iron Ore	1583	45.53%
2	2603	Copper Ore	420	12.07%
3	307	Molluscs	341	9.79%
4	303	Non-fillet Frozen Fish	332	9.55%
5	7108	Gold	317	9.13%
6	2709	Crude Petroleum	176	5.06%
7	302	Non-fillet Fresh Fish	83	2.38%
8	2710	Refined Petroleum	75	2.14%
9	2301	Animal Meal and Pellets	47	1.34%
10	7204	Scrap Iron	21	0.61%
Total (≥1%)			3373	96.99%
Morocco				
1	8544	Insulated Wire	2380	9.50%
2	3105	Mixed Mineral or Chemical Fertilizers	2076	8.28%
3	2510	Calcium Phosphates	1858	7.41%
4	2809	Phosphoric Acid	1780	7.10%
5	6204	Non-Knit Women's Suits	1180	4.71%
6	2710	Refined Petroleum	1091	4.35%
7	8703	Cars	978	3.90%
8	1604	Processed Fish	575	2.29%
9	8541	Semiconductor Devices	533	2.13%
10	6203	Non-Knit Men's Suits	526	2.10%

Continued

11	702	Tomatoes	525	2.09%
12	307	Molluscs	495	1.97%
13	805	Citrus	426	1.70%
14	3103	Phosphatic Fertilizers	416	1.66%
15	2707	Coal Tar Oil	386	1.54%
16	6109	Knit T-shirts	354	1.41%
17	6206	Non-Knit Women's Shirts	326	1.30%
18	6403	Leather Footwear	324	1.29%
19	8542	Integrated Circuits	305	1.22%
20	6104	Knit Women's Suits	268	1.07%
21	7106	Silver	254	1.01%
22	7404	Scrap Copper	230	0.92%
Total (≥1%)			17,056	68.03%
Oman				
1	2709	Crude Petroleum	21,422	51.68%
2	2711	Petroleum Gas	6028	14.54%
3	2710	Refined Petroleum	4326	10.44%
4	2902	Cyclic Hydrocarbons	1031	2.49%
5	3102	Nitrogenous Fertilizers	888	2.14%
6	7601	Raw Aluminium	693	1.67%
7	2905	Acyclic Alcohols	672	1.62%
8	2601	Iron Ore	548	1.32%
9	7203	Iron Reductions	513	1.24%
10	3920	Raw Plastic Sheeting	351	0.85%
Total (≥1%)			36,121	87.14%
Qatar				
1	2711	Petroleum Gas	47,445	46.77%
2	2709	Crude Petroleum	39,171	38.61%
3	2710	Refined Petroleum	7154	7.05%
4	3901	Ethylene Polymers	2177	2.15%
5	3102	Nitrogenous Fertilizers	1328	1.31%
6	7601	Raw Aluminium	1174	1.16%
7	2901	Acyclic Hydrocarbons	536	0.53%
Total (≥1%)			98,449	97.05%
S. Arabia				
1	2709	Crude Petroleum	198,499	76.27%
2	2710	Refined Petroleum	14,957	5.75%
3	3901	Ethylene Polymers	9516	3.66%

Continued

4	2905	Acyclic Alcohols	7425	2.85%
5	2711	Petroleum Gas	6535	2.51%
6	3902	Propylene Polymers	5743	2.21%
7	2902	Cyclic Hydrocarbons	2303	0.88%
Total (≥1%)			242,675	93.25%
Somalia				
1	102	Bovine	67	40.40%
2	104	Sheep and Goats	61	36.54%
3	1207	Other Oily Seeds	8	4.59%
4	4402	Wood Charcoal	6	3.77%
5	4106	Tanned Goat Hides	4	2.25%
6	4103	Other Hides and Skins	4	2.17%
7	4102	Sheep Hides	2	1.30%
8	8413	Liquid Pumps	2	1.28%
9	4105	Tanned Sheep Hides	2	1.26%
10	1301	Insect Resins	2	1.18%
11	4101	Equine and Bovine Hides	2	0.92%
Total (≥1%)			158	94.74%
Sudan				
1	7108	Gold	2167	44.90%
2	2709	Crude Petroleum	1771	36.69%
3	1207	Other Oily Seeds	176	3.64%
4	1301	Insect Resins	99	2.04%
5	2902	Cyclic Hydrocarbons	70	1.46%
6	2710	Refined Petroleum	53	1.09%
7	204	Sheep and Goat Meat	48	1.00%
8	1701	Raw Sugar	39	0.80%
Total (≥1%)			4384	90.82%
Syria				
1	2510	Calcium Phosphates	167	10.73%
2	2709	Crude Petroleum	121	7.78%
3	808	Apples and Pears	74	4.75%
4	909	Spice Seeds	57	3.68%
5	7606	Aluminium Plating	43	2.77%
6	802	Other Nuts	39	2.51%
7	504	Animal Organs	34	2.18%
8	3004	Packaged Medicaments	31	2.02%
9	5205	Non-Retail Pure Cotton Yarn	25	1.63%

Continued

10	3402	Cleaning Products	25	1.59%
11	6109	Knit T-shirts	20	1.26%
12	5703	Tufted Carpets	19	1.22%
13	5407	Synthetic Filament Yarn Woven Fabric	19	1.19%
14	7214	Raw Iron Bars	18	1.17%
15	7206	Iron Ingots	17	1.09%
16	4105	Tanned Sheep Hides	17	1.08%
17	809	Pitted Fruits	16	1.02%
18	406	Cheese	16	1.01%
19	6110	Knit Sweaters	15	0.98%
Total (≥1%)			756	48.68%
Tunisia				
1	2709	Crude Petroleum	1591	10.35%
2	8544	Insulated Wire	1551	10.09%
3	6203	Non-Knit Men's Suits	898	5.84%
4	6204	Non-Knit Women's Suits	751	4.89%
5	2710	Refined Petroleum	493	3.21%
6	8528	Video Displays	459	2.99%
7	6403	Leather Footwear	438	2.85%
8	8536	Low-voltage Protection Equipment	383	2.49%
9	1509	Pure Olive Oil	347	2.25%
10	8708	Vehicle Parts	302	1.96%
11	3105	Mixed Mineral or Chemical Fertilizers	301	1.96%
12	6211	Non-Knit Active Wear	262	1.71%
13	6109	Knit T-shirts	259	1.68%
14	6110	Knit Sweaters	232	1.51%
15	2809	Phosphoric Acid	231	1.50%
16	8517	Telephones	207	1.35%
17	804	Tropical Fruits	207	1.35%
18	8501	Electric Motors	168	1.09%
19	8803	Aircraft Parts	168	1.09%
20	2835	Phosphinates and Phosponates	156	1.01%
21	6205	Non-Knit Men's Shirts	152	0.99%
Total (≥1%)			9405	61.17%
UAE				
1	2709	Crude Petroleum	74,195	46.18%
2	2710	Refined Petroleum	21,320	13.27%
3	7108	Gold	14,746	9.18%
4	2711	Petroleum Gas	11,817	7.35%
5	7113	Jewellery	5600	3.49%

Continued

6	7601	Raw Aluminium	3531	2.20%
7	7102	Diamonds	3122	1.94%
8	3901	Ethylene Polymers	1649	1.03%
9	8525	Broadcasting Equipment	1568	0.98%
Total (≥1%)			135,980	84.64%
Yemen				
1	2709	Crude Petroleum	4945	58.39%
2	2711	Petroleum Gas	1921	22.69%
3	2710	Refined Petroleum	489	5.77%
4	2707	Coal Tar Oil	184	2.18%
5	302	Non-fillet Fresh Fish	107	1.26%
6	307	Molluscs	67	0.79%
Total (≥1%)			7647	90.29%

nymous exports. Non-oil-exporters have different items.

Let us concentrate on the eight countries whose manufactured products showed a category share of 25% or more. We list below the top five exported items of these countries.

- 1) Comoros: Cloves at 40.09%, Non-fillet frozen fish at 25.86%, Scrap vessels at 13.60%, Essential oils at 7.42% and Vanilla at 3.97%.
- 2) Djibouti: Other animals at 31.79%, Coffee at 12.65%, Bovine at 9.17%, Dried legumes at 4.54% and Scrap iron at 4.07%.
- 3) Egypt: Crude petroleum at 17.85%, Petroleum gas at 10.15%, Refined petroleum at 8.61%, Gold at 4.48% and Nitrogenous fertilizers at 3.43%.
- 4) Jordan: Calcium phosphates at 10.65%, Potassic fertilizers at 6.02%, Packaged medicaments at 5.60%, Mixed mineral or chemical fertilizers at 3.36% and Knit Sweaters at 3.16%.
- 5) Lebanon: Gold at 27.74%, Diamonds at 5.90%, Jewellery at 5.88%, Electric generating sets at 3.14% and Scrap copper at 2.73%.
- 6) Morocco: Insulated wire at 9.50%, Mixed mineral or chemical fertilizers at 8.28%, Calcium phosphates at 7.41%, Phosphoric acid at 7.10% and Non-knit women's suits at 4.71%.
- 7) Syria: Calcium phosphates at 10.73%, Crude petroleum at 7.78%, Apples and pears at 4.75%, Spice seeds at 3.68% and Aluminium plating at 2.77%.
- 8) Tunisia: Crude petroleum at 10.35%, Insulated wire at 10.09%, Non-knit men's suits at 5.84%, Non-knit women's suits at 4.89% and Refined petroleum at 3.21%.

As we can see, the details give a finer and more insightful picture of a country's exports. **Table 3** thus provides a different (and sometimes contradictory), yet accurate, picture of exports⁸. Of course, we recognize that aggregation is ne-

⁸Some contradictions may be explained by the definitional problems between data sources of UNCTAD and World Bank.

cessary for ease of handling data. The details, however, inform the empirical methods for our study.

To what extent fluctuations of these exports contribute to economic growth remains an open question. Thus, today more than ever, given the current macroeconomic conditions, it is important to address the issue of the stability of exports as measured by the changes (or equivalently earnings) for the LAS countries. It is well-known that extreme exports-earnings volatility has negative impact on a country's economic development and growth prospects ([14]-[22]).

Using data on trade and econometric methods, this paper addresses the questions of the stability of export earnings and performance of the export portfolios of the LAS countries. The next section paints a socioeconomic picture of the league.

3. The Socio-Politico-Economic Picture of the Arab League

One of the dimensions of the LAS countries has been their diverse approach and exposure to trends in globalization. **Table 4** shows the globalization divide permeating the LAS countries. **Table 4** reports the ranks of the KOF Index of Globalization for 2014⁹, which consists of three subsidiary indexes. For instance, the GCC countries of United Arab Emirates (ranked 30) and Qatar (36) are way more plugged into and inserted in the global economy than countries such as Somalia (ranked 191), Comoros (183) and Sudan (180). There is also a mid-level group showing growing insertion into the global economy such as Bahrain (ranked 40), Kuwait (41), Jordan (43), Saudi Arabia (48), and Lebanon (52). The KOF Index of Economic Globalization for 2014 shows that countries like Bahrain (ranked 8), UAE (13), and Qatar (24) rank very high. It is clear that some countries in LAS have positioned themselves much more effectively to fully benefit from globalization trends than others. The increasing integration into the global economy by some of these countries reinforces the virtuous cycle of economic growth and development, increasing the economic complexity of some of these nations. **Table 4** shows also the two remaining sub-indexes, viz., the social globalization index and the political globalization index.

Table 5 continues to fill-in details of the socio-politico-economic picture. The Table reports numerous indicators of development of the LAS countries: Global Innovation Index¹⁰ (GII) for 2014, Global Competitiveness Index¹¹ (GCI) for 2014-2015, Ease-of-Doing Business Index¹² (EDBI) for 2015, Economic Freedom Index¹³ (EFI) for 2015, Human Development Index¹⁴ (HDI) for 2014, Corruption Perception Index¹⁵ (CPI) for 2014, GDP per Capita in USD¹⁶ for 2013, Exports as a percent of GDP¹⁷ for 2013.

⁹<http://globalization.kof.ethz.ch/>

¹⁰World Intellectual Property Organization (WIPO). (http://www.wipo.int/econ_stat/en/economics/gii/)

¹¹World Economic Forum. (<http://reports.weforum.org/global-competitiveness-report-2014-2015/>)

¹²World Bank. (<http://www.doingbusiness.org/rankings>)

¹³Heritage Foundation. (<http://www.heritage.org/index/about>)

¹⁴UN. (<http://hdr.undp.org/en/composite/HDI>)

¹⁵Transparency International. (<https://www.transparency.org/cpi2014>)

¹⁶World Bank. (<http://data.worldbank.org/>)

¹⁷World Bank. (<http://data.worldbank.org/>)

Table 4. Globalization indexes ranks.

Country	Rank Globalization	Rank Economic Globalization	Rank Social Globalization	Rank Political Globalization
Algeria	117	139	140	53
Bahrain	40	8	44	149
Comoros	183	164	158	168
Djibouti	116	166	133	101
Egypt, Arab Rep.	85	124	120	10
Iraq	155	175	151	127
Jordan	43	53	72	37
Kuwait	41	57	22	117
Lebanon	52	71	47	112
Libya	144	181	137	139
Mauritania	133	64	173	145
Morocco	61	97	77	31
Oman	73	38	76	150
West Bank and Gaza	174	207	87	191
Qatar	36	24	58	73
Saudi Arabia	48	56	40	113
Somalia	191	198	193	178
Sudan	180	151	194	128
Syrian Arab Republic	137	126	132	133
Tunisia	78	82	130	47
United Arab Emirates	30	13	20	129
Yemen, Rep.	123	85	172	96

Notes: The ranks are based on 207 countries for the year 2014. 1 is the best and 207 is the worst. Source: Dreher ([59]) and Dreher, Gaston and Martens ([60]). (<http://globalization.kof.ethz.ch/>)

The Global Innovation Index 2014 shows that the GCC countries such as Qatar, UAE and Saudi Arabia are the group's most innovative while countries such as Sudan, Yemen and Egypt are getting caught in the region's innovation divide.

The Global Competitiveness Index 2014-2015 also places the GCC nations such as UAE, Qatar and Saudi Arabia as the most competitive LAS countries. Moreover, both UAE and Qatar are among the world's top 20 most competitive nations, showcasing the potential of the LAS's competitive edge when the fundamentals are well-addressed and -managed. Again, countries such as Yemen, Egypt and Libya are trailing the group's regional and global competitiveness standings. United Arab Emirates, a LAS country, ranked the highest at 12 worldwide. Factors such as a competitively attractive infrastructure, stable microeconomic and macroeconomic policies, solid institutions, and efficient goods and services markets contribute to the UAE's ranking. On the other hand, Egypt

Table 5. Socio-politico-economic indicators.

Country	GII	GCI	EDBI	EFI	HDI	CPI	GDP per capita	Exports (%GDP)
Algeria	n.a.	79	154	157	93	100	5.3	33.1
Bahrain	62	44	53	18	44	55	24.6	74.3
Comoros	n.a.	n.a.	159	n.a.	159	142	0.81	16.4
Djibouti	n.a.	n.a.	155	112	170	107	1.6	n.a.
Egypt	99	119	112	124	110	94	3.3	17.6
Iraq	n.a.	n.a.	156	n.a.	120	170	6.8	34
Jordan	64	64	117	38	77	56	5.2	42.5
Kuwait	69	40	86	74	46	67	52.1	71.6
Lebanon	77	113	104	94	65	136	9.9	62.5
Libya	n.a.	126	188	n.a.	55	166	11.9	n.a.
Mauritania	n.a.	141	176	n.a.	161	124	1.0	66.7
Morocco	84	72	71	89	129	80	3.0	33.6
Oman	75	46	66	56	56	64	21.9	62.6
Palestine		16	50	32	31	26	93.7	71.7
Qatar	47							
Saudi Arabia	38	24	49	77	34	55	25.9	51.8
Somalia	n.a.	n.a.	n.a.	n.a.	n.a.	174	n.a.	n.a.
Sudan	143	n.a.	160	n.a.	166	173	1.7	9.6
Syria	n.a.	n.a.	175	n.a.	118	159	n.a.	n.a.
Tunisia	78	87	60	107	90	79	4.3	47
United Arab Emirates	36	12	22	25	40	25	43.0	98.4
Yemen	141	142	n.a.	133	154	161	1.4	n.a.
Total countries	143	144	189	165	187	174		

Source: Global Innovation Index (GII), 2014, WIPO; Global Competitiveness Index (GCI), 2014-2015, WEF; Ease-of-Doing Business Index (EDBI), 2015, World Bank; Economic Freedom Index (EFI), 2015, Heritage Foundation; Human Development Index (HDI), 2014, UN; Corruption Perception Index (CPI), 2014, Transparency International; GDP per Capita (in USD), 2013, World Bank; Exports (% of GDP), 2013, World Bank.

ranked 119, stressing the need to deepen its market reforms efforts as well as stabilizing its macroeconomic and microeconomic environments. In addition, the lack of competition and rigid labor markets do not help Egypt achieve higher levels of competitiveness. A number of LAS countries, Algeria and Morocco for instance, need to address the quality of their educational systems ([23]). On the competitiveness dimension the divide is also present: Yemen is classified as a factor-driven economy, ranked 142. On the other extreme Qatar is classified as an innovation-driven economy, ranked 16 ([23]).

The Ease-of-Doing Business Index 2015 also showcases how some LAS countries have been more diligent than others in creating a more welcoming environment for their private companies. The GCC countries of UAE, Saudi Arabia,

Qatar and Bahrain have the most inviting business environments. Countries like Algeria, Djibouti, Comoros and Mauritania, on the other hand, show onerous business environments which are not conducive to entrepreneurial activity. The economic divide permeating Arab League nations is a reflection of how these countries have addressed regulations affecting their business environments. For instance, UAE was ranked 22, Saudi Arabia 49, while Jordan was ranked 117. The World Bank ([24]) provides a vivid example of the efficiency of a country's business environment in the cost of exports: looking at the USD cost per container, UAE shows a much lower cost than Jordan and Saudi Arabia.

The Economic Freedom Index reinforces the established rankings in the region, *i.e.*, the freer economic regimes are found in UAE, Qatar, Jordan, and Bahrain. Countries of Egypt, Algeria and Yemen show a strong interference by the government in their economic and business environments.

The GDP per capita numbers indicate that the most competitive and more market-oriented countries also show the highest levels of per capita income in the region. Qatar and UAE lead the LAS in a clear contrast to countries of Yemen, Mauritania and Comoros.

The Human Development Index provides an alternative way of assessing a country's multi-dimensional development. It includes variables such as healthy and long life, educational standards and standard of living. The index shows that countries like Qatar, Saudi Arabia, UAE, and Bahrain are able to achieve "very high levels of human development" whereas countries like Yemen, Comoros and Mauritania show "low levels of human development." Again the GCC countries are able to attain a number of vital dimensions of socio-politico-economic development.

Transparency International's Corruption Perception Index (CPI) indicates that the GCC countries, such as Qatar and UAE are the least corrupted countries in the LAS grouping and in the world. This adds credence to other indicators and further explains the successful trajectory of Qatar and UAE. These countries are able to balance neoliberal measures with an effective and efficient state, leading to stable economic and social development. Social safety net, trade liberalization policies, and micro- and macro-economic solid foundations are placing them at the forefront of economic development and growth in LAS. Crucially important, these two countries have substantial reserves in their sovereign wealth funds, the use of which could bolster human capital development and innovation and R&D strategies ([25]).

All in all **Table 4** and **Table 5** paint a diverse picture of socio-politico-economic development across the countries of LAS.

4. The Arab League's Foreign Sector

Since the Arab Spring ([6]), several LAS countries have seen a deterioration in their external sector. For instance, the FDI flows into the LAS countries show a substantial change between 2002-2008 and the period post-financial crisis. Between 2002-2008 the FDI flows increased from USD 5.4 billion to USD 91.7 bil-

lion, decreasing dramatically to only US\$ 42.1 billion in 2013 ([9]).

The real estate sector and the liberalization of the gas and oil industries in some of the LAS countries helped to attract substantial amounts of the FDI during the period of 2002-2008. The financial-crisis years, however, deeply affected the real estate sector and tourism sector, imposed a downward pressure on oil prices, and internal geopolitical conflicts have all combined to add a negative impact on the attraction of foreign direct investment ([26]).

Another dimension of the heterogeneous nature of the LAS countries can be seen by looking at the net foreign assets of the GCC countries vis-à-vis countries like Egypt, Syria, Jordan, Lebanon and Morocco. In 2014, the GCC countries had forecasted net foreign assets of USD 2.27 trillion compared to forecasted *negative* net foreign assets of USD 46.7 billion. In addition, the current accounts of the GCC countries were estimated to be around USD 300 billion in 2014, compared to USD 25.9 billion *deficit* for the other countries such as Egypt, Syria, Jordan, Lebanon and Morocco ([27]).

The dramatic reduction in oil prices in 2014 has had multi-faceted impacts. Kuwait and Saudi Arabia have refused to go along with some OPEC members such as Venezuela which was calling for a price hike. The different production costs and budgetary constraints drove this process. For instance, Algeria needs an estimated oil price of close to USD 121 per barrel to achieve a balance in its government budget whereas Qatar needs around USD 65. Oman and Bahrain are also vulnerable to lower oil prices ([28]).

Since the early 1950s, several attempts have been made to foster intra-trade amongst Arab countries. Starting with the Treaty on Transit Trade (TTT) and the subsequent efforts in the early 1980s to create an Arab Free Trade Area (AFTA), the Greater Arab Free Trade Zone (GAFTA) was established in the early 2000s. It aims to increase the interdependence of economies in the region, foster the creation of a more homogenous market, lead to economic efficiency gains, and result in trade-creation effects. Agricultural products, however, were left out (during the harvest season) penalizing GAFTA's agricultural producers ([29]).

Table 2 showcases LAS's trade structure by product group. There is a clear dichotomy amongst exporting countries. Some the countries show a much higher degree of dependence on oil and natural gas exports than others. Iraq obtains close to 99 percent of its export earnings from oil whereas Tunisia obtains close to 74% from manufactured products. We also have countries that display a more balanced and diversified export portfolio such as Egypt and Lebanon. **Table 2** showcases the very low levels of high-tech exports as a percentage of these countries' manufactured exports. For instance, Morocco and Tunisia show the highest percentage with a six percent participation of high-tech exports as a share of total manufacturing exports whereas the large majority shows no exports of high-tech products at all. It is clear that LAS countries are trailing a number of South-East Asian countries that are currently showing much higher share of high-tech exports in their trade portfolios, e.g., Malaysia (44%) and Thailand

(21%) ([1]).

The lofty goals of trade and mutual cooperation and development have yet to be realized. A regional trading bloc, with or without monetary union, should at least show some results emanating from at least an informal (or formal) customs union. Such results seem to have eluded LAS.

Intra-LAS trade amongst the members constitutes a very small percentage of these countries' total exports: around nine percent ([30]). **Table 6** gives a comparison of trade among the LAS countries: The grand average for years 1990, 1995 and 2000 is around nine percent. While the oil and natural gas exporters can depend on a continually strong global demand for energy, the same cannot be said for other countries in the bloc. Regional consumption and investment necessary for the former are essential for economic development however defined. That we do not observe large intra-LAS trade is quite puzzling.

Table 6. Inter-Arab and external trade.

Country	1990			1995			2000		
	Total IAT	Total ET	Ratio	Total IAT	Total ET	Ratio	Total IAT	Total ET	Ratio
Algeria	469	20.689	2.27%	560	21.042	2.66%	553	29.223	1.89%
Bahrain	2.203	7.547	29.19%	2.169	7.83	27.7%	1.967	10.312	19.08%
Comoros									
Djibouti									
Egypt	481	11.801	4.07%	924	15.18	6.09%	1.919	18.469	10.39%
Iraq	1.578	16.839	9.37%	714	1.089	65.56%	1.05	16.843	6.23%
Jordan	1.056	3.504	30.13%	1.496	5.467	27.37%	1.081	6.496	16.65%
Kuwait	535	12.231	4.37%	1.263	20.616	6.12%	1.44	27.193	5.30%
Lebanon	643	2.972	21.62%	733	7.376	9.94%	1.058	6.944	15.24%
Libya	792	19.541	4.06%	1.135	13.697	8.29%	1.04	16.095	6.46%
Mauritania	27	857	3.15%	37	1.214	3.05%	35	1.095	3.22%
Morocco	1.405	12.142	11.57%	1.145	13.245	8.64%	1.008	20.375	4.95%
Oman	3.581	8.235	43.49%	2.142	10.313	20.77%	3.359	16.694	20.12%
Palestine									
Qatar	386	4.988	7.75%	572	5.609	10.19%	1.269	14.779	8.59%
Saudi Arabia	5.772	68.498	8.43%	6.473	78.128	8.29%	9.249	109.055	8.48%
Somalia	111	545	20.37%	185	447	41.38%	146	576	25.39%
Sudan	535	1.819	29.41%	537	1.789	30.02%	535	3.359	15.93%
Syria	937	6.602	14.19%	1.298	8.595	15.10%	1.357	9.072	14.96%
Tunisia	775	9.684	8%	991	13.676	7.25%	1.151	14.229	8.09%
United Arab Emirates	2.236	33.389	6.7%	3.291	52.389	6.28%	6.682	82.879	8.6%
Yemen	552	3.946	14%	738	3.521	20.97%	1.045	6.418	16.28%
Total	24.073	245.83	9.79%	26.404	281.23	9.39%	34.107	410.11	8.32%

Source: <http://www.medeia.be/en/themes/economy-and-trade/arab-free-trade-area-afta/>. IAT = inter-Arab trade; ET = external trade.

5. Data, Methods, Hypotheses and Expected Results

This section discusses the data and statistical details for our study. We use the methods from modern finance. This method should help us evaluate the returns on exports in light of fluctuations of exports. Modern finance has developed measure of fluctuations as well as risk-return tradeoff ratios. We discuss the details of data, empirical methods, and hypotheses on world-trade-based fluctuations and performance ratios. The section concludes by detailing expected results.

5.1. Data

The sample consists of 21 countries (all the countries for LAS except Palestine (or West Bank and Gaza)) for the period from 1988 through 2012. Data are collected in nominal USD from the *Direction of Trade Statistics* published by International Monetary Fund. In our study because the numbers are expressed in nominal USD we need not adjust them for inflation in any local currency; the US dollar acts as the numeraire thereby helping us avoid the debate about real versus nominal quantities. Data are collected for the total global exports of each of the aforementioned country and the world as a whole. The last one serves as the broad market (index) of global trade. We use the annual data. Percentage changes are calculated from these annual numbers. These percentage changes are analogous to returns in the context of stock market assets. The *total* return in the stock market would include dividend. The total return on a stock consists of growth in price and dividend. For an average-price stock, however, the dividend amount is small enough to *not* make much difference in the time series of returns. Additionally the export trade numbers are in millions and there is nothing analogous to dividend in international trade. Therefore we call these percentage changes export returns or in short, returns. These export returns are used in the empirical methods described below.

5.2. Methods

We use a method from the Modern Portfolio Theory for the empirical work. The pricing model developed out of the insights of Markowitz ([31] [32]), Sharpe ([33]) and Lintner ([34]) is called the Capital Asset Pricing Model (CAPM)¹⁸. The pricing model gives an investor the tool to evaluate the risk-return tradeoff so that the investor can determine whether a risky asset would provide a rate of return commensurate with risk borne. This risk-return tradeoff of a risky asset is measured against that of the market as a whole where a broad-based index of risky assets is used to represent the market.

The aforementioned pricing model permits conceptualization of risk in two different ways. The first measure is the standard deviation of returns; this is a measure of the total risk. The second measure is the beta; this is a measure of the

¹⁸The equation of CAPM is given as $E(R_i) = R_f + \{E(R_m) - R_f\} \beta_i$, where $E(R_i)$ is the expected return on asset i for the next period, R_f is the risk-free rate, $E(R_m)$ is the expected return on the market portfolio and β_i is the average sensitivity of asset i 's returns to those of the market portfolio.

average sensitivity of the returns of an asset to the returns of the market as a whole, *i.e.*, the sensitivity to the fluctuations in the market. The total risk can be decomposed into the systematic risk and the unsystematic (also known as unique) risk. The beta is a measure of the systematic risk. The systematic risk is not diversifiable whereas the unique risk can be reduced by an optimal portfolio. The systematic risk is often sought to be reduced by other risk-management tools and methods, e.g., options and futures. Whereas the CAPM is used in many contexts, the investment-related applications have used the empirical version of the CAPM. This is called the single index model (SIM)¹⁹. If we take the perspective of a country in the context of the global trade, then export diversification is one method of reducing the risk inherent in the country's export trade.

We refer the interested reader to Gouvea and Vora ([35]) who provide numerous citations to the application of SIM in various fields to demonstrate that the use of SIM to explore the topic of this study is well-established. We use SIM in a direct way to analyze the performance of export portfolios.

We wish to assess the sensitivity of exports to the fluctuations in global trade. The slope coefficient of the simple linear regression equation captures the sensitivity. In the context of investment theory, as mentioned before, this slope coefficient is called the beta and the regression equation is called the single index model. The estimation of the equation of the SIM is based on an index which serves as the benchmark. In this application, the benchmark is the total world exports. That a country's or a portfolio's exports would fluctuate with total world exports (trade) does not need explanation. The estimation is based on the annual arithmetic returns calculated from the total exports for a country, portfolio or the world ([35] [36]).

Sharpe ([37] [38] [39]) introduced one of the more popular reward-to-risk ratios, *viz.*, the reward-to-variability ratio, more commonly called the Sharpe (performance) measure or the Sharpe ratio. The Sharpe ratio is defined as the ratio of the excess return and the standard deviation of that return²⁰. Treynor ([40]) provided another popular reward-to-risk ratio, *viz.*, the reward-to-volatility ratio, more commonly called the Treynor (performance) measure or the Treynor ratio. The Treynor ratio is defined as the ratio of the excess return and the systematic risk of that return²¹. Typically these ratios are calculated from the ex post data. Ex post ratios are mostly used for performance evaluation whereas ex ante ratios are often used for investment decision-making.

¹⁹The equation is given as $R_{i,t} = \alpha_i + \beta_i R_{m,t} + \varepsilon_{i,t}$, where in the current context, $R_{i,t}$ is the return for country or portfolio i for period t , $R_{m,t}$ is the return for the index m for period t , α_i is the intercept for country or portfolio i , β_i is the slope coefficient for country or portfolio i , and $\varepsilon_{i,t}$ is the error term for country or portfolio i for period t .

²⁰Notationally the Sharpe Ratio is $(\bar{R}_i - \bar{R}_f) / \sigma_i$, where \bar{R}_i is the arithmetic average of the returns for country or portfolio i , \bar{R}_f is the arithmetic average of the risk-free return and σ_i is the standard deviation.

²¹Notationally the Treynor Ratio is $(\bar{R}_i - \bar{R}_f) / \beta_i$, where \bar{R}_i is the arithmetic average of the returns for country or portfolio i , \bar{R}_f is the arithmetic average of the risk-free return and β_i is the measure of market-related risk.

We will need to make a slight modification while applying investment-theoretic performance measures to evaluate countries' export performance; we will use the ex post export return in place of excess export return for a country or its portfolio. This is equivalent to assuming that the risk-free rate is zero. Thus, we use close variants of the Sharpe ratio²² and the Treynor ratio²³, which we will continue to refer as reward-to-risk ratios.

The best way to evaluate the risk-return tradeoff will be to compare these ratios with those of a portfolio of all the LAS countries and with those of the index.

5.3. Hypotheses

We wish to see whether export portfolios of all products of countries show divergent risk-return characteristics. We wish to describe whether their risk, described by two measures of volatility (own-volatility and market-based volatility) earns commensurate returns. The countries serve the role of assets and return on exports of the countries serve as asset returns. Given these methodological necessities, the hypothesis can be stated succinctly as whether the betas of these countries are the same and whether the performance measures are the same.

We wish to examine three things. First, we want to examine the behavior of the betas of the countries and collectively their portfolio. We have already mentioned that the beta shows the sensitivity of the export earnings to the index. Second, we wish to examine whether the Treynor ratios for the countries and their portfolio show any over- or under-performance. The Treynor ratio is defined as the ratio of the average return for the sample period and the beta. It is an indicator of the return earned per unit of systematic risk. Third, we wish to examine whether the Sharpe ratios for the countries and their portfolio show any over- or under-performance. The Sharpe ratio is defined as the ratio of the average return for the sample period and the standard deviation. It is an indicator of the return earned per unit of its own total volatility. Depending on the need of the examination and the perspective used, one or the other performance measure may be preferred.

5.4. Expected Results

If exports of the LAS countries are treated equally in global trade, then we should get the result that all countries' exports are equally sensitive to the aggregate exports of the world and the risk-return tradeoff is similar for them. If, on the other hand, these countries are treated differently (because of intrinsic differences), then we should get the result that their sensitivity to the aggregate ex-

²²In the context of this study, we need not use the risk-free rate. Alternatively, \bar{R}_i may be considered equal to zero. Therefore the Sharpe Ratio becomes \bar{R}_i/σ_i where \bar{R}_i is the arithmetic average of the returns for country or portfolio i and σ_i is the standard deviation of the returns for country or portfolio i .

²³In the context of this study, we need not use the risk-free rate. Alternatively, \bar{R}_i may be considered equal to zero. Therefore the Treynor Ratio becomes \bar{R}_i/β_i , where \bar{R}_i is the arithmetic average of the returns for country or portfolio i and β_i is the measure of market-related risk.

ports of the world and the risk-return tradeoff is different. The implications for economic policy, industrial policy, business policies, social policies, etc., will be different in these two cases overall and different for individual countries. These implications are discussed in later sections.

6. Results

Table 7 gives the single index model estimates for the countries and the portfolio, using the full sample period of 1989 through 2012 for returns. The coefficients of intercept and slope are reported along with their t-statistics below the coefficients. The statistical significance at 10 percent, 5 percent and 1 percent are indicated by asterisks. Mean returns and standard deviations of the returns are given columns 3 and 4.

As highlighted on **Table 7**, the LAS countries show a widely diverse response to global trade fluctuations. The beta showing the sensitivity of export portfolios is way higher for oil-exporters than non-oil exporters. For instance, the beta for Algeria is 1.65 which is in line with that of others oil exporting countries such as Saudi Arabia at 1.95, UAE at 1.74 and Sudan at 1.7. Thus, these countries experienced higher levels of volatility in their responses to global trade fluctuations.

Countries with a higher content of manufactured products in their export portfolios, on the other hand, such as Jordan, Lebanon, Morocco and Tunisia, show export portfolio betas well below levels experienced by countries with a heavy dependence on oil and natural gas. For instance, the beta of Tunisia is 0.87, Lebanon 0.32, Jordan 0.34, and Morocco 1.08. Thus, these countries experienced lower levels of volatility in their responses to global trade fluctuations. On the other hand, low betas for both Lebanon and Jordan also reflect the low competitive nature of their export portfolio composition, *i.e.*, these two countries are not fully responding to global trade trends, consequently they are not able to take full advantage of global trade opportunities. Contrastingly Morocco's export portfolio beta shows that that the country follows trade trends.

In sum, 13 out of the 21 LAS countries, all of them oil-exporting nations, show betas higher than the market beta. This constitutes a higher sensitivity and thus volatility of their export earnings. On the other hand, countries with a higher share of manufactured products shows a much lower level of volatility, although again there are substantial differences among countries. Moreover, it is important to mention that the "what you export matters", *i.e.*, manufactured exports with a larger global market and higher value-added tend to also benefit nations with betas closer to the global market beta ([35]).

Figure 1 illustrates the Sharpe ratio for the LAS countries, the portfolio of all countries and the world index. Adjusting for risk, Qatar shows the highest Sharpe ratio denoting a performance superior to the index, followed by UAE and Bahrain. Note, however, that these countries are *naturally* able to create export portfolios, *i.e.*, the composition of their exports that allow them to have a higher Sharpe ratio which is not possible for Comoros and Syria. Countries with high levels of manufactured products in their export portfolios also fared rela-

Table 7. Single index model results for countries of LAS and LAS portfolio for period from 1989 through 2012.

Code	Country	Mean Return	Standard Deviation	Intercept	Slope	Sharpe Ratio	Treynor Ratio
DZA	Algeria	0.123100	0.247497	-0.019240 -0.385459	1.655692*** 4.367333	0.497381	0.074350
BHR	Bahrain, Kingdom of	0.140926	0.204083	0.041414 0.902225	1.157518*** 3.320141	0.690533	0.121749
COM	Comoros	0.160121	0.569447	0.219137 1.407135	-0.686468 -0.580368	0.281187	-0.233253
DJI	Djibouti	0.1180290	0.203441	0.124336 2.219223	-0.070327 -0.165267	0.581444	-1.682004
EGY	Egypt	0.141842	0.253590	0.040227 0.654082	1.181977** 2.530365	0.559337	0.120004
IRQ	Iraq	0.365089	1.006258	0.290630 1.052161	0.866100 0.412830	0.362819	0.421532
JOR	Jordan	0.096400	0.195783	0.067002 1.262037	0.341955 0.848042	0.492382	0.281908
KWT	Kuwait	0.325389	0.960841	0.208789 0.796835	1.356281 0.681510	0.338650	0.239913
LBN	Lebanon	0.103399	0.202983	0.075792 1.372933	0.321133 0.765907	0.509399	0.321983
LIB	Libya	0.179508	0.519595	0.095514 0.679662	0.977006 0.915344	0.345475	0.183732
MRT	Mauritania	0.088673	0.199684	-0.037308 -1.020788	1.465412*** 5.279006	0.444069	0.060511
MAR	Morocco	0.092382	0.210018	-0.000883 -0.017936	1.084849*** 2.902288	0.439876	0.085157
OMN	Oman	0.128127	0.205319	0.015812 0.367000	1.306435*** 3.992308	0.624037	0.098074
QAT	Qatar	0.206804	0.239096	0.072731 1.477052	1.559521*** 4.169910	0.864939	0.132607
SAU	Saudi Arabia	0.152466	0.256821	-0.015177 -0.338341	1.950015*** 5.723418	0.593666	0.078187
SOM	Somalia	0.094013	0.209209	0.003416 0.069033	1.053816** 2.803947	0.449372	0.089212
SDN	Sudan	0.140869	0.369848	-0.007849 -0.087594	1.729878** 2.541798	0.380884	0.081433
SYR	Syrian Arab Republic	0.233699	0.713212	0.037380 0.201193	2.283579 1.618291	0.327671	0.102339

Continued

TUN	Tunisia	0.093219	0.145194	0.018107	0.873697***	0.642034	0.106695
				0.572791	3.638848		
ARE	United Arab Emirates	0.153127	0.213619	0.003198	1.743967***	0.716822	0.087804
				0.097814	7.023750		
YEM	Yemen, Republic of	0.188003	0.509183	-0.043888	2.757346***	0.369224	0.068182
				-0.374333	3.139302		
Port	Portfolio	0.136609	0.211252	-0.009328	1.697527***	0.646663	0.080475
				-0.278936	6.683492		
World	World	0.085970	0.101865		1.000000	0.843961	0.085970

Notes: Annual returns for countries and all the countries in a portfolio. The first row gives the value of the coefficients. The second row gives the *t*-stat for the coefficients. The critical values for *t*-stat for DF = 21 are 2.8314 (1%), 2.0796 (5%) and 1.7207 (10%), except for Yemen for which *t*-stat for DF = 19 are 2.8609 (1%), 2.0930 (5%) and 1.7291 (10%). These are designated by ***, ** and * respectively.

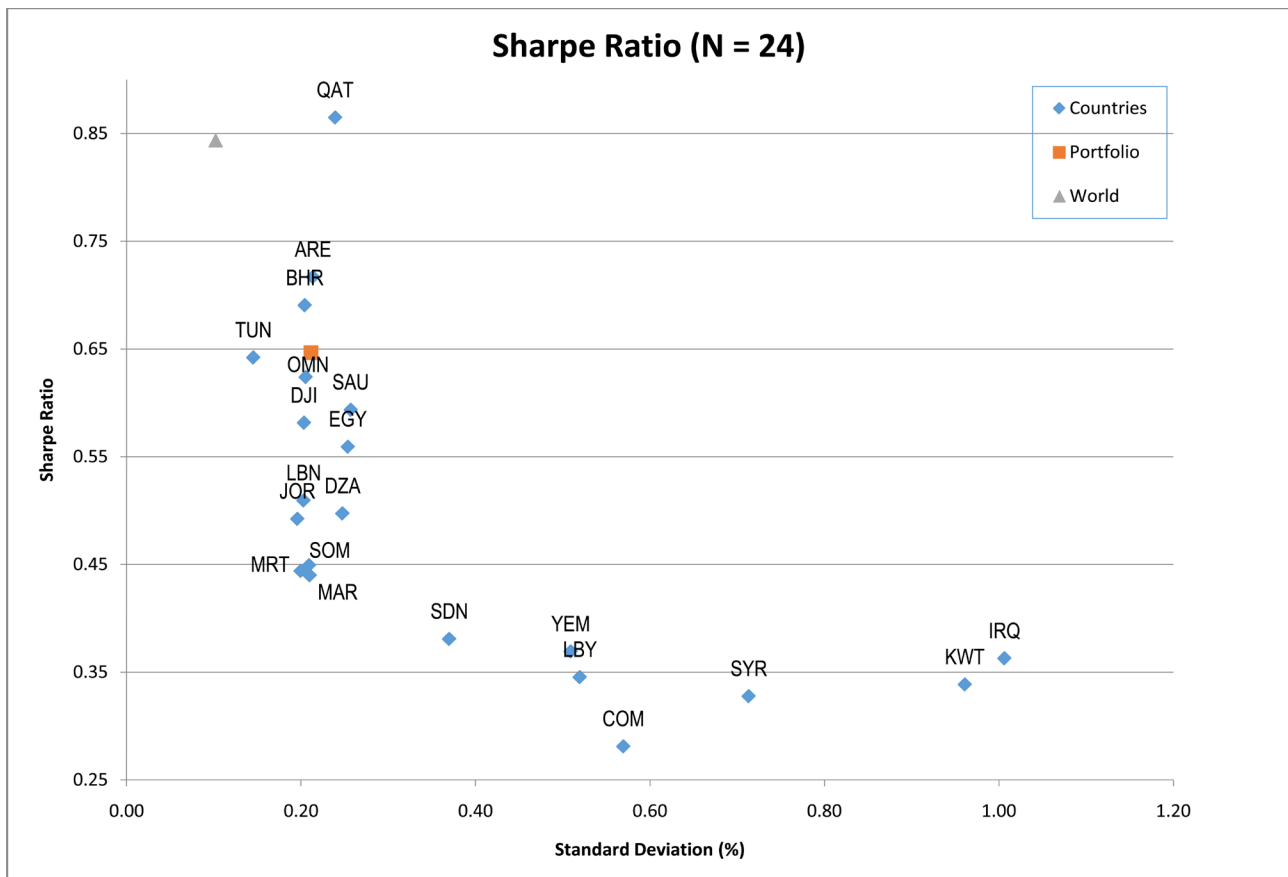


Figure 1. Sharpe ratio for countries, portfolio and world index.

tively well such as Tunisia, Jordan, Morocco and Lebanon. On the lower side of performance we find Syria, Kuwait and Iraq.

Figure 2 illustrates the Treynor ratios for the LAS countries, the portfolio of all countries and the world index. Manufactured products-intensive exporters such as Lebanon, Jordan, Tunisia and Morocco fared better than oil-exporting countries. Yemen and Syria show the worst Treynor ratio performance for the

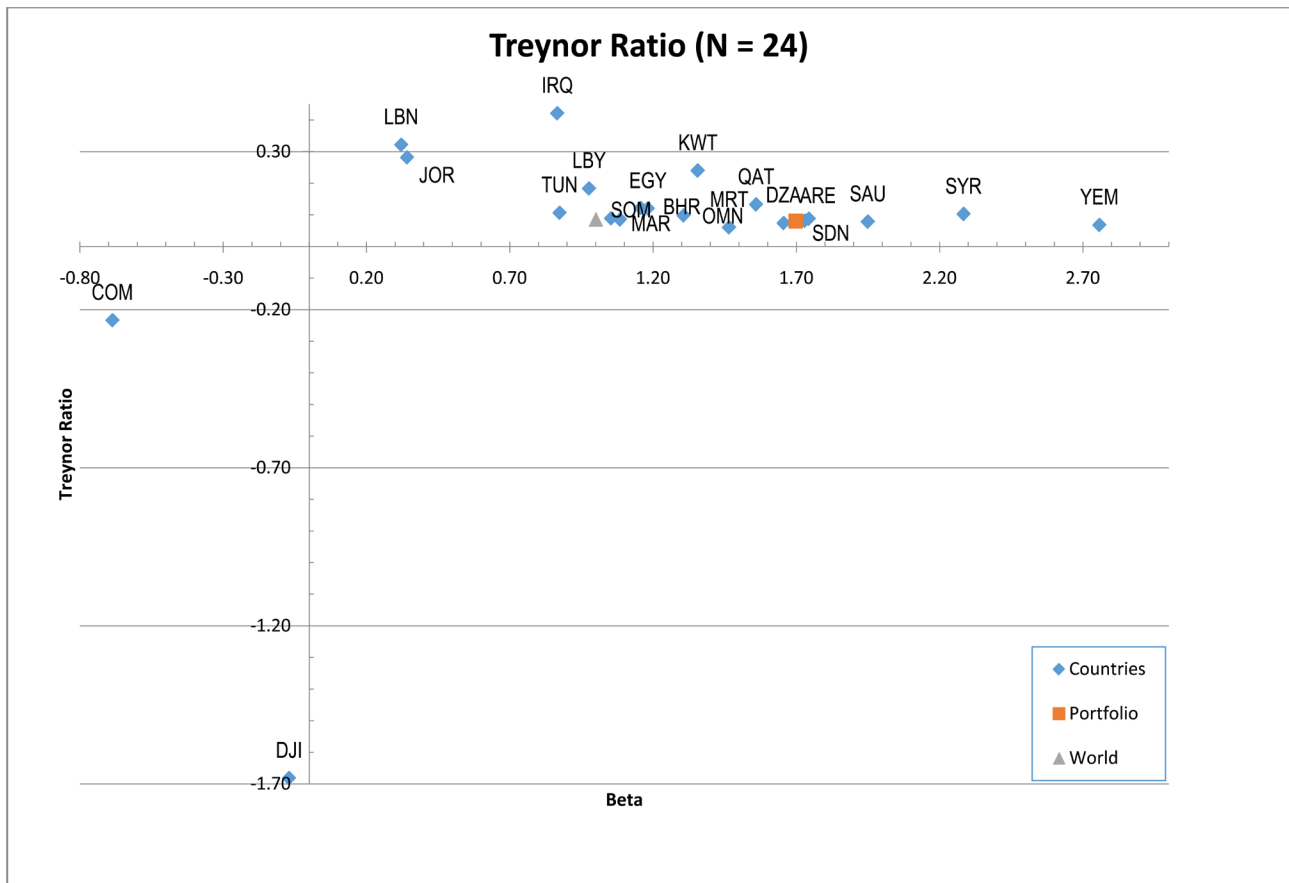


Figure 2. Treynor ratio for countries, portfolio and world index.

grouped by Syria. Iraq is the outlier in the group. Comoros (COM) and Djibouti (DJI) are outliers because they have a negative beta. **Figure 2** shows that Treynor ratios are tightly bunched thereby causing some overlapping points.

The next section provides some caveats for interpretation and discusses policy implications.

7. Caveats and Implications for Policies

The results mentioned in the earlier section are more or less not unexpected. We have done what we had set out to do, *i.e.*, explore empirically the performance of exports (or export earnings) of countries comprising the Arab League.

Recognize that we have not used the Markowitz model of constructing optimal portfolios. The Markowitz model needs both a full variance-covariance matrix and returns of the assets (here countries) in *expectations* terms. The outcome of the Markowitz model is an optimal portfolio where the optimality is defined as follows: Maximize a portfolio's rate of return given a level of risk in standard deviation *or* minimize a portfolio's risk in standard deviation given a level of portfolio return. The Markowitz model is not an equilibrium asset-pricing model.

We are using the single index model which is the ex post counterpart of the ex ante asset-pricing model designated as CAPM. The performance evaluation

measurements due to Sharpe and Treynor do use the building blocks of the single index model.

In general the above interpretation must give pause to policy-makers in both developed and under-developed countries. The policies directed (extremely) narrowly (say, for *niche* markets) are likely to be less fruitful than broader policies. The policies of export zones, special economic zones, clusters of one type or another, export promotion policies, profligate subsidies and crude attempts at protection which might have worked for manufacturing may not work with equal efficiency or efficacy.

This brings us to the composition of exports. As detailed in **Table 2** and **Table 3**, in general a diversified portfolio of exports helps a country's development. The oil-exporters have done well mainly because energy is the engine of global economy. The contrast between **Figure 1** and **Figure 2** is eye-catching in terms of volatility of export earnings. Note that the aim of the present research is export volatility and export composition. We have added the information on globalization and socio-politico-economic indicators of the countries of the Arab League. An analysis of these factors and their relationship to economic growth is beyond the scope of this paper.

Nevertheless, the LAS countries require special attention. We provide some salient policy implications in the next section.

8. Arab League's Structural Challenges

The LAS countries face a number of economic and social structural challenges. Some LAS countries have been more effectively addressing them than others. A number of these challenges have a direct impact on these countries' economies and export performance.

1) Transitioning from a Natural-Based-Resource Economy to a Knowledge-Driven Economy

Fostering entrepreneurship in these countries may provide the answer to the low productivity and high unemployment plaguing their economies. Thus, the creation of private sector jobs, by promoting small and medium size companies, since they create more jobs than more capital intensive companies, is becoming of paramount economic and business strategic importance for the LAS countries. Investor confidence necessitates serious effort for removal of barriers for the fostering of local private sector initiatives. Private sector's investment and growth would increase growth and development prospects for the entire region. The creation of a more diversified pool of exporting companies would help alleviate these countries' dependence on natural-resource-based goods ([41] [42]).

Thus, the transition from an oil and natural gas producer economy to a knowledge-driven economy is of paramount importance to reposition LAS in the global economy. Thus, increasing the complexity of their economies, enhancing their innovation and economic competitiveness, and designing new development pathways are becoming a major priority for these economies ([43]).

It is worth noting that World Economic Forum ([44]) classifies the LAS coun-

tries as follows: Stage 1: Mauritania and Yemen; Transitioning from Stage 1 to Stage 2: Algeria, Kuwait, Libya and Saudi Arabia; Stage 2: Egypt, Jordan, Morocco and Tunisia; Transitioning from Stage 2 to Stage 3: Bahrain, Lebanon, Oman and UAE; Stage 3: Qatar²⁴. This categorization for a bloc with stupendous natural resources whose demand is relatively less price-sensitive is astonishing. This categorization is expected to worsen with the continuing strife in the region and expense of a country's wealth on unproductive uses.

The establishment of an innovation and R&D mindset that permeates the whole of these economies is also a pre-condition for the embracing of an alternative growth path strategy such as knowledge-driven economic strategy. The increasing economic diversification, stressing more value-added products and services, is of paramount importance in the process of embracing entrepreneurship and job creation. Such a strategy would deepen the integration of the LAS economies in the global supply chain of services and products. In light of this, the creation of a quadruple innovation helix bringing together the private sector, government, academic and research units and consumers will deepen and expand innovation and knowledge driven efforts ([43] [45] [46]).

The erection of innovation systems for a number of Arab League nations will have a positive impact on productivity gains, increase in the share of technology content on these countries' exports, amongst other economic and social impacts. These countries also need to address the challenge of "brain drain". It is estimated that more than 50% of students do not return to their countries of origin thereby further compromising these countries' ability to create innovation systems. The number of patents and levels of investment on R&D will need a boost. Thus, the creation of dynamic innovations systems in these economies may help to retain and to reverse the brain drain trend ([30]).

Initiatives such as the exploration of alternative energy sources to meet increasing energy demand needs by a number of LAS countries could become a vital strategy. Qatar, UAE and Saudi Arabia are pioneers in this regard. For instance, Saudi Arabia's King Abdullah City for Atomic and Renewable Energy (K.A.CARE) initiatives to boost its domestic solar energy sector will have dramatic impacts on its innovation and technology efforts. The efforts to build "energy corridors" to export solar energy to other nearby nations such as the GCC countries would help to diversify Saudi Arabia's export portfolio. Moreover, initiatives such as the Trans-Mediterranean Renewable Energy Cooperation and the interconnection of power grids between the GCC and Saudi Arabia (Gulf Cooperation Council Interconnection Authority) would further reinforce the possibilities to increase exports of renewable and sustainable energy by Saudi Arabia ([47]).

2) Job Creation

One of the most pressing issues facing the region is the high rates of unemployment, in particular, youth unemployment ([48]). Changes aimed at diversifying the economic structure of these countries, putting a premium on manu-

²⁴Comoros, Djibouti, Iraq, Somalia, Sudan and Syria do not enough information for classification.

facturing and service industries stressing value-added, with a high capability of utilizing local labor may provide one of the answers to this issue. Novel ways for labor absorption will need to be implemented.

With an average of 30% youth population unemployment, the region is not creating a hopeful future environment for its youth, further compromising social stability. Efforts need to be made to design educational triple helix arrangements, where the private sector, educational institutions, and local governments interact to develop synergies in order to provide workers with a more competitive set of skills, easing their penetration in local labor markets. This needed set of skills in fields such as science and engineering would address the changing needs of the local private sector and government agencies. In addition, it would have a dramatic impact on these countries' economic efficiency and competitiveness ([27] [49] [50]).

The employment divide between the countries in LAS is quite interesting and poses formidable challenges. The developing countries are suffering from unemployment of various degrees whereas the developed countries are importing temporary workers from Indian subcontinent and Pacific Rim countries. This situation calls for a coordinated policy among the member-states. The LAS countries already have two major advantages for easier cross-border immigration, permanent or temporary, viz., (1) the language and (2) the similarity of culture. This would increase not only remittances but also domestic consumption and consequently savings and development.

3) Fostering an Equitable and Inclusive Economic and Social Environment

Social mobility and the creation and expansion of a middle class in the region are also a major challenge confronting these countries. Some member countries such as Qatar, UAE, Saudi Arabia and Kuwait have taken the first steps to consolidate an emerging middle-class, but the other countries still have to understand the importance of reducing income inequality to build a sustainable, equitable and inclusive economic growth and development strategy. For instance, the share of women in the region's labor force is around 26%, well below global averages ([51]).

4) Millennium Development Goals

It is well accepted that the "Arab Spring" was a result of unemployment, income-inequalities, poor quality of government services, lack of political and economic transparency, and governance issues ([27] [51]).

The LAS countries are substantially lagging in their Millennium Development Goals. Issues such as hunger and undernourishment, poor access to health care services, and access to water plague a number of countries in the region ([51]).

Fostering labor-intensive industries in conjunction with capital-intensive ones, and stressing educational opportunities and fostering gender equality opportunities could be major steps towards building a more inclusive and equitable society in the region, helping to address a number of the millennium goals for the region. It is clear that actions need to be taken to lower the income-divide present amongst the LAS countries.

5) Encouraging the Intra-LAS Trade and FDI

If the goals of Article 2 of the Pact of the Arab League States (see Section 1) are to be achieved, then it needs an unabashed bloc-wide champion. The world has gathered enough evidence through GATT, WTO, UNCTAD, IMF, IBRD, ADB, NAFTA, and the like²⁵, that trade blocs or *still* tighter webs of integration are helpful in lifting millions out of poverty and pushing millions into a better and fulfilling life by almost any socioeconomic indicators. As we noted in an earlier section the intra-LAS trade is abysmally small. This situation cannot be allowed to continue. Whatever is necessary must be done. If this requires major overhauls in social and economic policies, they must be undertaken. Some recommendations are given above. The most important recommendation follows: political stability and individual, personal empowerment are *condiciones sine quibus non*. Citing China's²⁶ authoritarian rule is not enough to satisfy the local population who expects more of its political leaders. Reliance on the GCC-countries is not enough for the bloc to make rapid progress. A whole slew of reforms is necessary.

6) Developing Exports of Creative Goods and Services

The peoples of the LAS countries have the history and traditions of millennia behind them for creativity. The colonial past or the current warfare is unlikely to dim the innate genius of Arabs for creative goods and services and trade therein. While the governments are implementing the recommendations made in Section 8.1, we recommend that simultaneously they undertake to promote industries devoted to creative goods and services. Global trade in these is increasing rapidly. The League can easily leapfrog other individual countries and trading blocs if policies are developed and implemented collectively.

9. Conclusions and Final Remarks

Section 7 of this paper discussed in some detail limitations of the empirical work, important caveats in the interpretation of results and policy implications for both business firms and countries. Section 8 of this paper discussed in details some of more salient policy implications because the LAS countries are heterogeneous and at different points in their development cycle. Exports and economic development of a country are almost always important to a country whether emerging or developed. They assume a greater significance for a volatile region of the world. The LAS countries are confronted with twin sets of problems: Not all LAS countries have oil-based earnings and almost all LAS countries have structural impediments for faster growth.

Since the early 1990s, the increasing exposure of the LAS countries to globalization forces has provided additional pressure on their economic policies. The lack of effective economic and social policies and strategies to integrate these

²⁵As if this were not enough, China, India and other 19 countries founded the Asian Infrastructure Investment Bank (AIIB) to speed up the process of targeted FDI where the targets are the infrastructure projects in the Asia region.

²⁶China has slowly abandoned its communist tendencies since 1978 when Deng Xiaoping led it through revolutionary market-economy reforms.

countries more effectively into the global economy has stressed their economies and societies. Factors such as the lack of attention to human capital development and productivity enhancement, the lack of effective, transparent and efficient institutions, the poor infrastructure development in non-GCC countries, and macro- and micro-economic instability in non-GCC countries have contributed to a severe income and social amongst the LAS countries ([52]).

In sum, growth remains imbalanced in the region and fragile in a number of non-GCC countries. Growth in oil-importing countries is lagging behind growth in oil-exporting countries. Morocco is an exception amongst non-oil exporting countries, helped by tourism and exports of manufactured products and high-tech products. In addition, increasing security and political instability issues are affecting growth and development prospects in the region ([53] [54]).

Thus, governments of the LAS countries need to devise new development and growth paths for their economies. Arab League countries must make an effort to avoid creating or continuing distorted growth, such as the rent-seeking economy model so ingrained in many of LAS countries ([30] [55]). The extreme concentration of investments in a few sectors, such as petrochemicals, oil, gas and tourism tends to prevent a virtuous cycle of economic and social growth. The diversification of investments leading to higher levels of entrepreneurial activity will certainly have positive impacts on employment, productivity growth, export diversification, foreign direct investment attraction, and on the increasing economic complexity of these economies ([26] [47] [56] [57] [58]).

These remarks point out the avenues for further research. Supranational organizations such as the World Bank, IMF, UNCTAD, etc. do indeed have research programs on regional economic development. This research needs to be expanded to include a dissection of constraints and impediments to all-inclusive growth in the Arab League. In spite of the continual political uncertainty and social upheavals the countries of the Arab League possess the potential to not only overcome them but also make a sustained concrete move towards the Millennium Development Goals. Development in all aspects of their societies' evolution is urgent and long overdue. Researchers can help in this effort.

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