

Original Article

Economic Study for the Efficiency of Local and Foreign Investment and Intra -Trade for Nile Basin Countries

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Abstract - The research aims at measuring efficiency indicators of the agricultural and National investments for Nile Basin Countries. The results refer to that Uganda is the only country that has achieved efficiency in the rate of the national investment as it reaches about 0.61 billion dollars, and the value of the rest countries of Nile Basin Countries is more than one whole which indicates the failure to achieve efficiency. As for the agricultural investment rate, Burundi and Rwanda have achieved efficiency since it reaches about 0.541 and 0.484 billion dollars. And the rest of the basin countries was more than one whole; this is evidence of the failure to achieve efficiency in the agricultural investment rate.

Keywords - Foreign Direct Investment, Intra-trade, Return Investment, Agricultural Investment, Gross Domestic Product

I. INTRODUCTION

Investment is the main focus of economic growth on the national level, the foreign investment is also considered the main engine for the success of the export process as it helps to transfer the experiences in management and modern technology, which contributes to increasing productivity, improving the competitiveness of products. foreign direct investment (FDI) differs from the external borrowing that is used by countries to take over the funding gap. it is also different from foreign indirect investment, which is the transactions with foreign investors in the capital market, and consists of two markets: the issue market (primary market), and the trading market (secondary market).

Nile Basin countries represent a fertile area for cooperation, trade, and investment among them; this is because of their participation in the Nile River and the near distance between them. International circumstances and national security concerns dictate the need to manage relations between these countries in a framework of integration and cooperation, and water strategy should be part of this administration, so that the policies of foreign trade of agricultural commodities can be integrated with water policies and that regional agricultural cooperation between

the basin countries is based on comparative advantage. Nile basin countries, through partnership models, can meet together in agricultural projects aimed at achieving food security, especially as the region has enormous potential of fertile agricultural lands and multiple sources of surface and groundwater.

In view of the value of trade between Nile Basin Countries, it shows that it is low as the value of inter-exports of these countries is about 6.11 Billion dollars, representing 10.93 % of the total value of its exports to the countries of the world. The value of inter-imports of these countries is about 5.04 billion dollars for the same period, as it represents about 4.89% of the total value of its imports from the countries of the world. intra- trade between Nile Basin Countries about 11.15 billion dollars, representing about 6.17% of the trade value of Nile Basin Countries with the world as an average period (2013-2017). This ratio of intra- trade is negligible in comparison with the value of trade exchange with the world. This requires increasing the value of trade exchange among Nile Basin Countries because of the close distances between these countries. (Comesa, 2019)

The foreign trade sector is considered a distinct economic sector for any country, due to its importance in providing foreign exchange resources through exports needed to promote economic development, which is a major goal for most countries, especially developing countries. Hence, it's important for Egypt comes from the importance of the Egyptian relations with Nile Basin Countries by virtue of their participation in Nile waters. The Egyptian exports to Nile Basin Countries witnessed a significant decline reaching 1.066 billion dollars in 2017, versus 1.137 billion in 2016. Imports from Nile Basin countries reaches 0.358 billion dollars in 2017, compared to .0398 billion dollars in 2016, with a reduction reaching 10.1%. (Manar. et al, 2018) Therefore, we must deal with a comprehensive strategic perspective that depends on linking the common interests of these countries because of the low value of foreign trade among them. This research aims to study the economic indicators for Nile Basin Countries, Measuring



efficiency indicators of the agricultural and National investments for Nile Basin Countries, Moreover, analyzing the current situation of the intra-trade for Nile Basin Countries, and the efficiency of the export process.

II. MATERIALS AND METHODS

A. Resources of Data

The research was based on using the descriptive statistical methods in describing and analyzing variables, by using the arithmetical averages and proportion. The research was based on secondary data published by several Official Authorities such as the food and agricultural organization (FAO), the COMESA, Websites of the international information network, scientific research, books, and references related to the subject.

B. Data Analysis

The following indicators were used to measure the efficiency of investment in Agricultural (El-Nakady. T.R, et al, 2018)

a) Investment rate

Reflects the amount of investment expenditure required adding one unit of the agricultural production, and it is calculated as follows:

$$\text{*Investment Rate} = \frac{\text{Agricultural Investment (national)}}{\text{GDP}}$$

The lower rate of more than 1 reflects efficiency in agricultural investment (national) and vice versa.

b) Return on Investment: (Investment Production)

Reflects the units of GDP resulting from one unit of the investment expenditure.

it is calculated through the following equation:

$$\text{*Coefficient of Investment Production} = \frac{\text{Agricultural local production (total)}}{\text{Agricultural investment (national)}}$$

Whereas, the rise of its value more than one reflects efficiency in agricultural investment (national)

c) Endemism Coefficient

Endemism coefficient reflects the extent of agricultural sector contribution in producing the Gross Domestic Product according to the investment in this sector and it is calculated by dividing the percentage of agricultural investment from the national investment from the percentage of GDP of the total Production. The lower rate of more than one reflects that the agricultural sector gets on amount of investment less than its contribution to the gross output.

III. RESULTS AND DISCUSSION

A. Foreign and Agricultural Investment in Nile Basin Countries

Data in the table (1) indicates that the direct foreign investment of Nile basin countries reaches 14.82 billion dollars. Egypt comes in the first rank, whereas its direct foreign investment reaches 6.26 billion dollars, representing about 42.24% of the total direct foreign investment. The value of the agricultural investment of Egypt reaches 32.97 billion dollars, representing 11.64% of the national investment, then came Ethiopia, whereas the direct foreign investment reaches 2.59 billion dollars, representing about 17.48% of the total foreign investment. The value of the agricultural investment reaches 22.32 billion dollars representing about 37.16% out of the total national investment. Then, Foreign Direct Investments in the Democratic Republic of Congo amounted to almost 1.63 billion dollars, representing about 11% of the total foreign direct investments of these countries, and its value of agricultural investment amounted to about 7.14 billion dollars and representing about 19.23% of the total national investments. Then Tanzania, the Foreign Direct Investments amounted to almost 1.58 billion dollars, representing 10.66% of the total foreign direct investments of these countries, and its value of agricultural investment amounted to about 14.13 billion dollars, representing about 29.42% of the total national investments. Followed by Sudan, where its Foreign Direct Investments amounted to almost 1.36 billion dollars, and it represents about 9.18% of the total foreign direct investments of these countries, and its value of agricultural investment amount about 24.08 billion dollars, and it represents about 31.86% of the total national investments. Then, Kenya, Rwanda, Uganda, and Burundi are in the following ranks, where the Foreign Direct Investments of these countries respectively are about 0.72, 0.36, 0.31, 0.01 billion dollars, and representing about 4.86%, 2.43%, 2.09%, 0.07% respectively of the total foreign direct investments of these countries, and its value of agricultural investment amount about 18.93, 2.56, 6.27, and 1.01 billion dollar respectively, and it represents about 29.50%, 31.7%, 24.04%, and 36.5% respectively of the total national investments.

Table 1. value of Foreign Direct Investment and Agriculture Investment for Nile Basin Countries during Average Period (2013 - 2017) (Value in billion-dollar)

Indicator	Foreign	National	Agriculture
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country	Direct Investment	Investment	Value	% of National Investment
Egypt	6.26	283.33	32.97	11.64
Burundi	0.01	2.76	1.01	36.54
Ethiopia	2.59	60.87	22.32	37.16
Kenya	0.72	63.77	18.93	29.50
Uganda	0.31	16.50	6.27	24.04
Rwanda	0.36	8.07	2.56	31.74
Tanzania	1.58	48.07	14.13	29.42
Democratic Republic of Congo	1.63	37.09	7.14	19.23
Sudan	1.36	209.13	24.08	31.86
Total	14,82	729.59	129.41	

Source: collected and calculated from data of comes, <http://comstat.comesa.int>

B. The Contribution of Agricultural Production to the Gross Domestic Product (GDP) in Nile Basin Countries:

Data of table (2) shows that the Gross Domestic Product of Nile basin countries amounted to about 599.60 billion dollars. Egypt is ranked first among Nile basin countries, where its gross domestic production amounted to about 279.38 billion dollars. It represents about 46.59 % of the GDP for the basin countries, and the value of agricultural Production amounts to 31.47 billion dollars, representing about 11.26% of Egypt’s GDP. Then followed by Sudan, where its GDP amounted to 85.90 billion dollars, it represents about 14.32% of the total GDP of these countries, and the value of agricultural Production amount 7.51 billion dollars, where it represents about 8.74% of the value of GDP. Then Kenya, where its GDP amounted to 60.69 billion dollars, representing about 10.12% of the total GDP of these countries, and the value of agricultural production amounted to 12 billion dollars, where it represents about 19.84% of the value of GDP. then Ethiopia which its gross domestic production is 55.15 billion dollars, representing about 9.20% of the total GDP of these countries, the value of the agricultural production reaches about 16.95 billion dollars, represents about 30.73% of GDP, then comes Tanzania which the value of its GDP is about 45.49 billion-dollar, representing about 7.59% of the total GDP of these countries. The value of its agricultural production is about 8.86 billion dollars that represent about 19.48% of the value of GDP, then comes Democratic Republic of Congo, Uganda, Rwanda, and Burundi in the next ranks as their gross domestic production reaches are about 35.26, 27.10, 7.96, 2.67 billion dollars which represent about 5.88%, 4.52%, 1.33%, 0.45% from

GDP of these countries, respectively. The value of agricultural production for these countries reaches about 5.3, 5.29, and 1.87, 1.28 billion dollars which represent about 15%, 66.46, 70%, and 4.72% of the value of the gross domestic product for these countries respectively.

Table 2. Value of GDP and Agricultural Production for Nile Basin Countries during Average Period (2013 - 2017) (value in billion-dollar)

Country	Gross domestic product		Agricultural Production	
	value	% of Total GDP	Value	% of GDP
Egypt	279.38	46.59	31.47	11.26
Burundi	2.67	0.45	1.87	70.04
Ethiopia	55.15	9.2	16.95	30.73
Kenya	60.69	10.12	12.04	19.84
Uganda	27.10	4.52	1.28	4.72
Rwanda	7.96	1.33	5.29	66.46
Tanzania	45.49	7.59	8.86	19.48
Democratic Republic of Congo	35.26	5.88	5.30	15.03
Sudan	85.90	14.32	7.51	8.74
Total	599.60	100	90.57	

Source: 1- collected and calculated from data of Comesa, <http://comstat.comesa.int>

2-African Development Bank Group & African Union Commission & Economic Commission for Africa, African Statistical Yearbook 2017.

C. Efficiency Indicators of Agricultural and National Investment in Nile Basin Countries

The success of the social and economic development policies depends on many determinants as the volume of the investments, the efficiency of its distribution in the different fields, and the ability of the countries to use these investments, effectively. To achieve the investments additional required in the national income it should be based on a strategy that is suitable to the economic development through the perfect operation of all production elements that are available in the society.

Data in the table (3) shows efficiency Indicators of agricultural and national investment in Nile Basin Countries during the study period as follows:

a) Investment Rate

The results of table (3) refer to that Uganda is the only country in Nile basin countries that has achieved efficiency in the rate of the national

investment as it reaches about a 0.61 billion dollars, and the value of the rest of Nile Basin Countries is more than one whole which indicates on the failure to achieve efficiency in the rate of the national investment. As for the agricultural investment rate, we can find that Burundi and Rwanda have achieved efficiency in agricultural investment since it reaches about 0.541 and 0.484 billion dollars, and the rest of Nile basin countries was more than one whole; this is evidence of the failure to achieve efficiency in the agricultural investment rate.

b) Investment Revenues: (The Investment Production)

Results of the table (3) indicate that Uganda is the only country of Nile basin countries that has achieved efficiency in the Investment Revenues which is amounted at 1.64 billion dollars and the rest of Nile basin countries is less than one whole; this is evidence of the failure to achieve efficiency in revenue to the national investment. As for the revenue on the agricultural investment, we find that Burundi and Rwanda have achieved efficiency according to this indicator as their value is mounted at 1.851 and 2.066 billion dollars on the sequence. As for the rest of Nile basin countries, the value was less than one whole as an indicator of the failure to achieve efficiency according to the indicator of revenues of the agricultural investment.

Table 3. Efficiency Indicators of Agricultural and National Investment in Nile Basin Countries during Average Period (2013-2017) (value in billion-dollar)

Indicator Country	Investment Rate		Investment Revenues		Endemism Coefficient %
	national	agricultural	national	agricultural	
Egypt	1.01	1.047	0.986	0.954	1.03
Burundi	1.03	0.541	0.967	1.851	0.52
Ethiopia	1.1	1.316	0.906	0.759	1.21
Kenya	1.05	1.572	0.951	0.636	1.49
Uganda	0.61	4.898	1.64	0.204	5.09
Rwanda	1.01	0.484	0.986	2.066	0.48
Tanzania	1.05	1.594	0.946	0.627	1.51
Democratic Republic of Congo	1.05	1.347	0.951	0.743	1.28
Sudan	2.43	3.206	0.411	0.312	3.65

Source: collected and calculated from tables (1), (2)

c) Endemism Coefficient

The data mentioned in table (3) indicates that the value of the Endemism Coefficient for Burundi and Rwanda has amounted at 0.052 % and 0.48 % on the sequence; this means that the agricultural sector obtain a sum of investment less than the sum of its

contribution to the total production of the agricultural sector, On the other hand, the rest of Nile basin countries, the Endemism Coefficient is more than one whole and this is evidence that the agricultural sector gets a sum of investments exceeds its contribution in the total production of the agricultural sector.

D. The Foreign Trade of Nile Basin Countries

The foreign trade sector is considered one of the distinguish economical sectors for any country. So it become a necessity to consider improving the commercial and economical relations among Nile basin countries because these countries enjoy a variety of economic resources capable of pushing the wheel of development.

a) The Magnitude of Intra- Trade for Nile Basin Countries:

Data mentioned in table (4) indicates the magnitude of the intra-trade of Nile basin countries. Kenya comes in the first rank as the volume of its intra-trade with Nile basin countries is amounted to 2.773 billion dollars with a percentage of 12.5% of its trade with the world. Uganda comes in the second rank and the volume of its intra-trade with Nile basin countries has amounted to 1.730 billion dollars with a percentage of 18.7% of its trade with the world. Then Egypt comes in the third rank and the volume of its intra –trade with Nile Basin Countries amounts to 1.369 billion dollars with a percentage of 1.58% of its trade with the world. followed by Sudan with a Value of intra trade with Nile Basin Countries about 1.379 billion dollars, representing about 9.8 % of the value of its trade with the world, Tanzania with a Value of intra trade with Nile basin Countries about 1.263 billion dollars, representing about 8.5 % of the value of its trade with the world, then come Democratic Republic of Congo, Rwanda, Ethiopia and Burundi with a Value of intra trade with Nile basin Countries about 1.072, 0.87, 0.404, 0.192 billion dollars, representing about 7 %, 33.6 %, 2.8 %, and 27.9 % of the value of their trade with the world respectively. In the light of the above, it is clear that the Value of intra trade of Nile basin Countries is low if compared to the Value of their world trade.

Table (4) Total Trade between Nile Basin Countries with World during Average Period (2013 - 2017) (value in billion-dollar)

	For Nile Basin Countries	For World	% Tota

Indicator	Exports	Imports	Total Trade	Exports	Imports	Total Trade	Trade with the world
Egypt	1.05	0.42	1.47	25.14	67.76	92.90	1.58
Burundi	0.04	0.15	0.19	0.11	0.57	0.69	27.9
Ethiopia	0.13	0.27	0.40	2.66	15.63	18.29	2.8
Kenya	2.05	0.72	2.77	6.06	16.05	22.11	12.5
Uganda	0.99	0.73	1.73	83.1	6.07	9.25	18.7
Rwanda	0.42	0.45	0.87	0.69	1.89	2.59	33.6
Tanzania	0.62	0.65	1.26	15.6	9.25	14.86	8.5
Democratic Republic of Congo	0.12	0.95	1.07	7.78	7.55	15.33	7
Sudan	0.68	0.70	1.38	4.70	9.37	14.08	9.8

Source: collected and calculated from data of comes, <http://comstat.comesa.int>

b) Indicators of Export Efficiency for Nile Basin Countries:

Table 5 shows the rate of export coverage of imports, where the Democratic Republic of Congo ranked first with 103 %, followed by Tanzania with 60.6 %, Uganda with 52.3 %, Sudan with 50.2 %, Kenya with 37.8 %, Egypt with 37.1 %, then Burundi with 19.9 %, and finally Ethiopia with 17%. As for the indicator of the export operation efficiency, it is shown that the Democratic Republic of Congo also ranked first with 323%, followed by Uganda with 50.1 %, Kenya with 42.2 %, Ethiopia and Rwanda with 40.7 %, Tanzania with 35.7 %, Egypt with 33.6 %, then Burundi with 31.9 %, and finally Sudan with 22.2%.

Table (5) Indicators of Export Efficiency for Nile Basin Countries during Average Period (2013 - 2017)
(value in billion-dollar)

Indicator	Exports	Imports	rate of export coverage of	Total Trade	National Income	export operation efficiency %
Egypt	25.14	67.76	37.1	92.89	276.5	33.6
Burundi	0.11	0.57	19.9	0.69	2.15	31.9
Ethiopia	2.66	15.63	17	18.29	44.88	40.7
Kenya	6.06	16.05	37.8	22.11	52.35	42.2
Uganda	3.18	6.07	52.3	9.25	18.47	50.1
Rwanda	0.69	1.89	36.7	2.59	6.35	40.7
Tanzania	5.61	9.25	60.6	14.86	41.56	35.7
Democratic Republic of Congo	7.78	7.55	103	15.33	4.74	323
Sudan	4.70	9.37	50.2	14.07	63.42	22.2

Source: collected and calculated from data of comes, <http://comstat.comesa.int>

IV. CONCLUSION

This research aims to study the economic indicators for Nile Basin Countries, Measuring efficiency indicators of the agricultural and National investments for Nile Basin Countries, Moreover, analyzing the current situation of the intra-trade for Nile Basin Countries and the efficiency of the export process. The results refer to the value of trade between Nile Basin Countries low, where the value of inter-exports of these countries is about 6.11 Billion dollars, representing 10.93 % of the total value of its exports to the countries of the world as an average period (2013-2017). The value of inter-imports of these countries is about 5.04 billion dollars for the same period, as it represents about 4.89% of the total value of its imports from the countries of the world. intra-trade between Nile Basin Countries about 11.15 billion dollars, representing about 6.17% of the trade value of Nile Basin Countries with the world that the Value of intra trade of Nile Basin Countries is low if compared to the Value of their world trade. Research recommends increasing the value of trade exchange between Nile Basin Countries due to the proximity of these countries, dealing with a comprehensive strategic perspective that depends on linking the common interests of Nile Basin Countries.

V. REFERENCES

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