

## **Study of Structure and Distribution of National Investments Focusing On Agricultural Sector in Egypt**

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### **ABSTRACT**

Investments are one of the means implementing agricultural development programs in Egypt. In spite of all economic changes the Egyptian economy witnessed, there is still a slowdown in the agricultural sector investments and even a clear decreasing in them in addition to having many problems and obstacles that stand in the way of agricultural investment in Egypt. The study has discussed the structure of investments and its distribution on various sectors of the national economy. Studying the most important factors affecting the agricultural investments, it is turned out that they are negatively affected by the increase in agricultural imports and in national imports, and they are positively affected by the increase in national exports. The study has been able to give some recommendations relevant to increasing agricultural investments in Egypt.

**Key words:** Investments Structure - National Investments - Agricultural Investments Function.

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### **Introduction**

Investments are one of the primary means for the implementation of development programs in Egypt , where the success of development policies largely depends on the size and efficiency of the distribution of available investments among economic sectors of the country, so investments have an effective and important role in bringing about structure changes in the national economy. It could be argued that the strategy of agricultural development in Egypt aims at encouraging increased rates of investment growth, whether investments in the form of public services owned by the country or other sectors that contribute in the productivity and infrastructure necessary for the establishment of productive projects , and this leads to increased investment activities by adding new productive projects, working to diversify the productive base within the national economic structure .

#### *Study Problem:*

Egyptian economy had several sequential economic changes during the previous years, from the policy of economic liberalization to the revolution of January 25, 2011, and despite the fact that the economic strategy seeks to direct all efforts to achieve development programs in all economic sectors, there is still a slowdown in the wheel of agricultural investments and a clear decrease in investments in the agricultural sector as well as a number of problems and impediments for agricultural investment in Egypt.

#### *Study Objective:*

The study aims to identify the current situation of the structure of the investments distribution among economic sectors in Egypt focusing on agricultural investments in terms of the most important factors affecting them.

#### *Research Method & Data Sources:*

The study relied on descriptive and statistical analysis technique and the method of simple and multiple regressions was used. Necessary data were also obtained from the published and unpublished data by main governmental entities, including Ministry of Economic Development, Central Agency for Public Mobilization and Statistics, and the studies related to the search topic.

### **Results and Discussion**

National investments in Egypt are distributed on six major sectors which are agriculture, industry, petroleum, electricity, construction and services. The service sector includes production services in the fields of transportation, trade, finance, insurance, tourism, restaurants and hotels, as well as social and personal services.

### Development of Agricultural Sector Investments in Egypt:

The investments average in agricultural sector during the period (2002/2003 - 2012/2013) was about 13254.34 million pounds, and the minimum investments in the agricultural sector have reached in (2011/2012) about 5370.7 million pounds, and their maximum reached in (2012/2013) about 8384.4 million pounds.

Estimating the equation of general trend (1), Table (1) for the development of total investments of the agriculture sector in Egypt shows that they had a decreasing general trend that is statistically significant amounting to about 0.05 billion pounds, and annually decreasing rate estimated at about (- 0.76%) of the total investments average of the agriculture sector amounting to about 13.3 billion pounds during the study period (2002/2003- 2012/2013).

The investments in agriculture sector during the study period average have contributed by about 11.3 % of the total investments in the commodity sectors, and estimating the equation of general time trend (2) in Table (1) for the development of the investments contribution in the agriculture sector in commodity investment shows that they took a decreasing general trend statistically significant reached about 1.78 billion pounds with an annually decreasing rate estimated at about 15.7 % of its average. Agriculture sector investments also contributed during the study period average by about 7.84 % of the total national investments, and estimating the equation of general time trend (3) in Table (1) shows that they took a decreasing general trend statistically significant amounted to 0.831 billion pounds during the study period with annual rate of change of about (- 16.25 %) of the study period average (2002/2003 - 2012/2013).

**Table 1:** Equations of General Time Trend for Development of Agricultural Investments in Billion Pounds & Their Contributions in Commodity & Total Investments (2002/2003 - 2012/2013)

NO.	Subsequent Variable	Fixed Limit	Regression Coefficient	Determination Coefficient R <sup>2</sup>	F Test	T Test	Annual Change Rate %
1	Agricultural Sector Investment (million pounds)	7.499	-0.050	-0.030	0.279	-0.528	-0.76
2	Percentage of Agriculture Sector of Investments of Commodities%	21.943	-1.778	0.807	39.702	** - 6.140	-15.7
3	Percentage of Agriculture Investments of the Republic%	10.102	-0.831	0.906	86.709	** -9.312	-16.25

(\*\*) Indicates the significance at 0:01 level.

Source: Collected and counted from references data (1: 4).

### Development of Industry Sector Investments in Egypt:

The investments average in industry sector during the period (2002/2003 - 2012/2013) reached about 23.12 billion pounds and the minimum investments in industry sector have reached in 2002 /2003 and 2003/2004 about 6.8 billion pounds, their maximum reached in 2006 / 2007 about 25.24 billion pounds, and the investments in industry sector have contributed by about 13.7 % of the total national investments. Estimating the equation of the general time trend (1) Table (2) for the development of the investments in industry sector in Egypt shows that they have taken an increasing general time trend statistically not significant amounted to about 1.83 billion pounds with an annual increase of about 7.91 % of the investments average in industry sector, amounting to about 23.12 billion pounds during the study period average (2002/2003 - 2012/2013).

### Development of Petroleum Sector Investments in Egypt:

The average of petroleum sector investments during the period (2002/2003 - 2012/2013) has reached about 23.83 billion pounds, it was found that the minimum investments in petroleum sector have reached in 2002/2003 about 6.6 billion pounds, and their maximum also reached about 42 billion pounds in 2007/2008 at. The investments in petroleum sector is contributed by about 14.1% in the total national investments. Estimating the equation of general time trend (2) table (2) declares an increasing general trend ,statistically insignificant at about 1.516 billion pounds, with an increase of about 6.36% of the average of investments in petroleum sector during the study period.

### Development of Investments in Egyptian Electricity Sector:

The average of investments in electricity sector during the period (2002/2003 - 2012/2013) has reached about 13.6 billion pounds, it was found that investments ranged among a minimum of about 8.9 billion pounds

in 2002/2003. Estimating the equation of general time trend (No. 3) in table (2) for the development of investments in electricity sector in Egypt declares that they take an increasing general trend statistically significant at about 1.391 billion pounds, with an annual rate of change of about 12% of the average of investments during the study period.

#### *Development of Investments in Egyptian Construction Sector:*

The average of investments in construction sector during the period (2002/2003 - 2012/2013) has reached about 3.49 billion pounds, and it was found that the investments in construction sector fluctuated between a minimum of about 1.09 billion pounds in 2003/2004 and a maximum of about 5.8 billion pounds in 2010/2011.

The investments in the construction sector contributed by about 4.21% of the total investment in the commodity sectors, and by about 2.02 % of the total national investments during the study period. Estimating the equation of general time trend (4) in Table (2) for the development of the construction sector investments in Egypt turned out to be an increasing general trend, statistically significant by about 0.41 billion pounds and with an annual rate of change of about 11.9 %.

**Table 2:** Equations of General Time Trend for Development of Investments in Various Economic Sectors in Billion Pounds in Egypt during the period (2002/2003 - 2012/2013)

NO.	Sectors	Fixed Limit	Regression Coefficient	Determination Coefficient	F Test	T Test	Annual Change Rate %
1	Industry	12.149	1.829	0.237	2.803	1.674	7.91
2	Petroleum	14.739	1.516	0.191	2.125	1.458	6.36
3	Electricity	3.255	1.391	0.877	63.915	**7.995	12.00
4	Construction	0.963	0.410	0.742	5.161	**5.161	11.90
5	Commodities	23.980	9.559	0.881	8.157	**8.157	11.75
6	Services	24.394	5.731	0.746	5.140	**5.140	9.75
7	Total Republic	48.836	20.049	0.942	12.049	**12.049	11.85

(\*\*) Indicates significance at 0:01 level.

Source: Collected and counted from references data (1: 4).

#### *Development of Commodity Sectors Investments in Egypt:*

The average of investments in commodity sectors during the study period, has reached about 81.33 billion pounds, and the investments have fluctuated between a minimum amounted to 28.17 billion pounds in (2002/2003), and a maximum amounted to 117.36 billion pounds in (2012/2013), the investments in commodity sectors have contributed by about 48 % in the total national investments during the study period.

Estimating the equation of general time trend (5) in Table (2) shows that they had an increasing general trend statistically reached 9.550 billion pounds with an annual rate of change of about 11.75% during the period (2002/2003 - 2012/2013).

#### *Development of Services Sector Investments in Egypt:*

The average of investments in services sector during the study period, has reached about 58.78 billion pounds, and investments have fluctuated between a minimum of about 29.4 billion pounds in 2002/2003 and a maximum of about 81.04 billion pounds in 2010/2011., the services sector investments have contributed by about (34.75%) in the total national investments for the study period average (2002/2003 - 2012/2013). Estimating the equation of general time trend (6) in Table (2) indicates that it takes an increasing general trend statistically significant amounted to about 5.731 billion pounds with an annual rate of change of about 9.75% during the study period (2002/2003 - 2012/2013).

#### *Development of Total National Investments in Egypt:*

The average of total national investments during the period (2002/2003 - 2012/2013) has reached about 169.131 billion pounds, its minimum has reached about 68.1 billion pounds in 2002/2003 and its maximum has reached about 246 billion pounds in 2011/2012.

It is clear from the equation of the general time trend (7) in Table (2) for the total national investments that it takes a general trend statistically significant at about 20.05 billion pounds, and an annual rate of change of about 11.85% of the average during the study period.

It is clear from the previous display that the sectors of petroleum and industry in Egypt occupied the first and second ranks in terms of their contribution to the total national investments as the petroleum sector contributed by about 14.15%, followed by the industrial sector by about 13.7%, then the electricity sector came

in third place by about 6.86%, and the sectors of agriculture and construction came in the fourth and fifth ranks by about 4.25% and 2.02% for each, respectively.

#### *Factors Affecting Agricultural Investments in Egypt:*

This section deals with the study of some of the factors and variables affecting agricultural investments in Egypt, crop area ( $X^1$ ), interest rate ( $X^2$ ), agricultural national production in billion pounds ( $X^3$ ), agricultural exports in billion pounds ( $X^4$ ), agricultural imports in billion pounds ( $X^5$ ), percentage of agricultural exports to agricultural imports ( $X^6$ ), national exports in billion pounds ( $X^7$ ), national imports in billion pounds ( $X^8$ ), the percentage of national exports to national imports ( $X^9$ ).

The function of agricultural investments was estimated in both linear and double logarithmic image and to overcome the problem of Multi co-linearity among independent variables stepwise regression technique was used and the advantage was for the linear image.

Thus, it is clear that the factors affecting the increase of agricultural investments are represented in the national exports while the agricultural imports are primarily responsible for the decline in agricultural investments, followed by national imports, which is consistent with the economic logic.

**Table 3:** Function of Agricultural Investments in Egypt during the period (2002/2003 -2012 / 2013)

Model	Fixed Limit	National Imports	National Exports	Agricultural Imports	Determination Coefficient R <sup>2</sup>	F Test
Linear	6.293	-1.242 ** (-2.567)	2.090 ** (5.091)	-1.456 ** (-5.770)	0.897	29.977

The figures in brackets refer to the counted value of T.

(\*\*) Indicates significance at 0:01 level.

Source: Collected and counted from references data (1: 4).

#### *Problems and Obstacles of Agricultural Investment in Egypt:*

There are many problems and obstacles that determine the effectiveness of the Egyptian agricultural investments in many agricultural fields, including:

1 – Declining of investments in public sector, as well as encouraging the country to invest in a particular activity at the expense of other sectors.

2 - Obstacles of investment in the horizontal expansion projects which are considered unattractive for Arab and foreign investments, due to the high price of public utilities and reclamation, and the length of the time period.

3 - The high risk in agricultural activity and the scarcity of local and foreign capital.

4 – The high costs of agricultural production requirements.

5 - The Problem of fragmentation of agricultural land possession, making it difficult to generalize the mechanization of agricultural processes.

6 – The Urban sprawl on the agricultural area, which led to the disruption of the relation between land resources and population.

7 – The Decline of savings of farmers as a basic component for agricultural investment, and problems of obtaining loans.

#### *Recommendations:*

Taking into consideration vertical and horizontal agricultural development programs.

- Working to reduce the deficit in agricultural trade balance by rising ratio of agricultural exports coverage to agricultural imports by encouraging production for export, and not to export the surplus.

- Decreasing taxes and interest rates as means to stimulate investment and to increase production.

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