Study the Efficiency of Investment and its Determinants in the Agricultural Sector

Khairy Hamed Eleshmawy, Enaam Abd elFattah Mohamed, Laila Mustafa ELShrif, Haitham Bauomy Hassan

Department of Agricultural Economics - National Research Center

Abstract: The promotion of increased rates of the investment growth is the main priority of the economic development, where there can be no development without adequate levels of investment. The problem has been narrowed to study in lower volume of investment goes to agriculture in spite of the importance of this sector to increase the rate of economic growth, the study aims to identify the relative importance of the investment total agricultural and agricultural domestic and foreign farm, as well as identify the most important factors affecting each. In addition to, identify the efficiency of agricultural investment. The results indicated that, overall agricultural investment and agricultural domestic and foreign farm represented about 9.38%, 7.98%, 1.4% of the total investments, and investments amounted to local agriculture, and foreign to 84.88%, 15.12% of the total agricultural investment. Estimating the efficiency indicators of agricultural investments shows that, there is efficiency in agricultural investment despite lower Kimpalasttmarat directed to the agriculture sector during the study period. The results showed that, the agriculture sector capital intensive, in addition to increasing the coverage of agricultural savings to agricultural investment as much as about 46% in 2008. While the share of one acre of agricultural investment from 283.65 pounds in 1999 to about 194 pounds in 2008. The results showed that, the most important factors affecting the local agricultural investments are in value-added farm income and saving agricultural and domestic liquidity and interest rate on farm loans. While the GDP and the budget deficit and non-agricultural investments, the most important factors affecting foreign investments in agriculture. Therefore, the study recommends the need to increase investments directed to the agricultural sector given the importance of this sector and its contribution to economic growth. You need to follow monetary policies that reduce the interest rate on agricultural loans to encourage investment in agricultural projects, in addition to the need to reduce taxes on agricultural projects as a means to stimulate the agricultural investor.

Introduction:

Investment is the primary focus of economic growth on the national level. Agricultural investment is also one of the tools essential to the success of agricultural development, which is the basic foundation to increase production and income and create new jobs. Increasing investment means the addition of productive projects and contributes to increasing production and thereby increase exports and reduce imports, thereby improving the trade balance, and increase national income and the individual and which is reflected in increased savings which in turn results in the creation of new investments, and therefore the investment is considered a variable stream has an effective role in finding solutions to the problems of the Egyptian economy as well as to absorb as much of the manpower is not working as well as reducing the unemployment rate of about 8% in 2008 (7).

Agriculture also contributes about 25% of GDP, has targeted the state would increase the rate of growth in the agriculture sector to around 5% annually, which requires increased investments aimed at this sector to about 14% (9).

This investment has reached about 104.65 billion national pounds, which represents investments in agriculture by about 6.7% during the period (2002-2008).

Study Problem: The problem with the study in the low volume of investment goes to agriculture relative to the investment to other sectors of non-agricultural despite the importance of that sector to increase the rate of economic growth through increased agricultural output and boost agricultural development, and also reduced the relative importance of agricultural investment in general and agricultural investments domestic and foreign, in particular.

The Aim of the Research Subject: The study aims to identify the efficiency of agricultural investment

through some of the economic indicators, as well as identifying the size of the total agricultural investment and agricultural investment, foreign and domestic the most important factors influencing them.

Methodology and Source of Data: The study relied on methods of descriptive statistics and quantitative data analysis to achieve the objective of research, as well as some measures of efficiency and methods of time trend in the public and multiple regression and gradual. The study was based on data published and unpublished, which have been collected from various sources such as the National Bank of Egypt, Ministry of Economic Development, and the device center for Public Mobilization and Statistics.

Research results and discussion
The relative importance of agricultural investment

Table (1), shows the relative importance of agricultural investment fluctuates from year to year, ranging between a maximum of about 14.2% in 2001 and a minimum of about 4.8% in 2006 and an average of about 9.38% of the total investments of national, which indicates a decline in importance relative to agricultural investments.

As seen from Table (2), the agricultural investments increased annually by 20.4 million pounds and with an annual increase of statistically

significant estimated 0.28% of average, amounting to around 7.21 million pounds during the period (1995-2008).

With regards to, the investments of domestic agriculture, ranged from a maximum of about 8.07 billion pounds in 2001, a relative importance of about 11.9%, 84.2% of the total national and agricultural investments, respectively, a minimum of about 3.8 billion pounds in 1995 represented about 7.01%, 84.8% of the national and agricultural investments, respectively, representing an annual average of about 7.98%, 84.9% of the national investment, agricultural, respectively, during the study period. The data in Table (2), shows that the local agricultural investments increased annually by 6.5 million pounds and an annual increase of about statistically significant 0.11% from an average of about 6.121 billion pounds.

With regards to, the agricultural investments in foreign, data in Table (1) indicates that, it reaches a maximum of 1.52 billion pound in 2001, representing about 2.3%, 18.8% national and agricultural investments, respectively, as a minimum to 0.69 billion pounds in 1995 representing about 0.8%, 11.5% of the national and agricultural investment, respectively, representing an annual average of 1.4%, 15.12% of the national and agricultural investment, during the period (1995-2008).

Table (1): Relative Importance of Agricultural (total, domestic and Foreign Investments) (1995-2008)

year	Gross Investments	Agr. Investments			Domestic Agr. Investments			Foreign Agr. Investments		
		Value	% of Gross Investments		Value	% of Gross Investments	% of total Agr. Inv.	Value	% of Gross Investments	% of total Agr. Inv.
1995	54.9	4.48	8.2		3.8	7.01	84.8	0.69	1.2	15.2
1996	68.5	5.19	7.6		4.45	6.5	85.7	0.74	1.1	14.3
1997	61.3	8.16	13.3		7.13	11.6	87.5	1.02	1.7	12.5
1998	64	8.42	13.2		7.22	11.3	85.8	1.2	1.9	14.2
1999	64.4	8.13	12.6		6.84	10.6	84	1.3	2.0	16
2000	63.6	8.2	12.9		6.81	10.7	83.2	1.38	2.2	16.8
2001	67.5	9.6	14.2		8.07	11.9	84.2	1.52	2.3	15.8
2002	68.1	7.4	9.4		5.49	8.1	85.8	0.91	1.3	14.2
2003	79.6	7.6	9.5		6.74	8.5	88.5	0.88	1.0	11.5
2004	96.5	7.4	7.7		6.34	6.6	85.5	1.08	1.1	14.5
2005	115.7	8.04	6.9		6.71	5.8	83.5	1.33	1.1	16.5
2006	155.3	7.55	4.8		6.21	3.9	81.2	1.42	1.0	18.8
2007	124.2	6.11	4.9		5.13	4.1	84	0.98	0.8	16
2008	93.1	5.71	6.1		4.83	5.2	84.6	0.88	0.9	15.4
Average	75.24	7.21	9.38		6.12	7.98	84.88	1.095	1.4	15.12

Source: Compiled and calculated from:
1 – Egyptian National Bank: varians bullitins.
2 – CAPMAS- Statistical Data Base.

As it turns out that, foreign investments in agriculture increased annually by about 13.84 million pounds, with an annual rate estimated statistically significant 1.27% on average, amounting to around 1.092 billion pounds during the study period, Table (2).

Estimating the coefficient of variation to the relative variation for each of the national and agricultural investments of local and foreign during the study period, which means differ from year to year.

Above it is a clear decline in the relative importance of agricultural investment, despite the importance of agriculture to increase production and farm income and create jobs and reduce unemployment, and then push the wheel of development.

Table (2): Statistical Estimation of National, Agricultural, Agricultural domestic and Agricultural foreign investments (1995-2008).

Variable		Average	Change rate %	F TEST	R^2	Variation coefficient
Gross Investments	20.36	132.63	1.54	30.7[**]	0.53	11.5
Agr. Investments	20.4	7.21	0.28	12.9[**]	0.62	19.8
Domestic Agr. Investments	6.5	6.121	0.11	15.3[**]	0.69	19.8
Foreign Agr. Investments	13.84	1.092	1.27	17.2[**]	0.72	24.6

(**) Significant at 0.01; **Source:** Compiled and calculated from data Table (1)

Efficiency of investment in the agricultural sector:
The process of allocating investments to the agricultural sector and optimize the distribution is the main determinant for long-term stability and make economic growth of this sector, with the consequent increase in productivity of factors of production and the growth rate of agricultural GDP. There are various standards and indicators used to measure the efficiency of investment it takes up in this part of the research together.

1 - The investment rate: expresses the amount of investment spending necessary to add one unit of agricultural output and is calculated from the following formula:

Investment rate = Agriculture Investment / Agricultural local output

Reflects the decline in the rate of one right on the efficiency of agricultural investment and vice versa.

It is clear from Table (3) that, the investment rate fluctuates from year to year, the maximum is reached about 0.714 million pounds in 1997, the minimum was about 0.332 million pounds in 2008, an average of about 0.554 million pounds during the period (1995-2008), which has already seen that the rate of agricultural investment decreased from the correct one during the study period, which indicates the efficiency of agricultural investment in order to lower the value of the investments needed to increase GDP by one unit.

2 - Return on Investment: This indicator reflects the units of the GDP generated from one unit of expenditure Alasttmary, and is calculated from the following equation:

Return on Investment=Agricultural local output/ total Agriculture Investment

It reflects the high value of the index for the right one on the efficiency of agricultural investment and estimating the return on agricultural investment during the period (1995-2008), shown in table (3)

that ranges from a low of around 1.4 million pounds in 1997, the ceiling was about 3.013 million pounds in 2008 and an estimated annual average of 1.89 million pounds, Which has already seen efficiency in agricultural investment because of the high unit value of GDP generated from investment spending.

3 - per acre of agricultural investment:
Calculated by dividing the investment of the agricultural cultivated area. Data in table (3), show that, the high per acre of agricultural investments ranging from a low of around 127.72 L.E in 1995, the ceiling was about 283.65 L.E in 1999, an average of an estimated 204 L.E during the study period (1995 - 2008), which has already seen the success of the investment policy in the mobilization of investment in the agriculture sector.

4 - Coefficient of Endemism: Indicates the coefficient of endemism to the contribution of the agriculture sector in generating gross domestic product, according to the investment of this sector and is calculated dividing the proportion of agricultural investment from the National Investment on the percentage of agricultural gross domestic product of the national gross domestic product, as in the following equation:

Coefficient of Endemism = (agricultural investment/ National Investment) ÷ (agricultural gross domestic product/ national gross domestic product)

Low this standard for the right one means that the agricultural sector has attracted investments of less than its contribution to GDP of the agricultural sector. The data in Table (3) that the minimum coefficient of endemism was about 0.24% in 1998, while the upper limit of about 0.87% in 2003, and an average annual estimated 0.58%. Notes from the table that the coefficient of endemism at least one order for each year of the study. This indicates the importance of directing more investments to the agricultural sector because of its importance in increasing gross domestic product.

Table (3): Criteria of agricultural investment efficiency (1995-2008)

year	Agr. Invest. coeff	Agr. Invest. returns	Agr. Invest. Per feddan (L.E)	Coefficient of Endemism	Capital intensification coeff.	Agr.savings /investment	Average propensity to save in agrionltwe%	Agr. Investment productivity
1995	0.474	2.108	127.72	0.31	0.963	32	9.6	3.28
1996	0.511	1.957	163.09	0.24	1.106	31	10.4	2.97
1997	0.714	1.4	187.29	0.54	1.718	23	11.2	2.05
1998	0.685	1.459	282.88	0.53	1.753	26	12.5	2.03
1999	0.628	1.591	283.65	0.76	1.674	30	13.5	2.24
2000	0.597	1.674	269.19	0.78	1.668	33	14.4	2.27
2001	0.673	1.485	268.54	0.77	1.929	28	13.9	2.02
2002	0.47	2.126	276.27	0.79	1.276	42	13.8	3.07
2003	0.589	1.696	155.42	0.87	1.487	32	12.5	2.57
2004	0.588	1.699	166.26	0.57	1.439	32	11.5	2.75
2005	0.597	1.675	158.27	0.59	1.534	29	10.4	2.82
2006	0.535	1.868	167.32	0.48	1.415	33	10.5	3.14
2007	0.375	2.662	156.74	0.47	1.126	44	10	4.38
2008	0.332	3.013	194.09	0.39	1.03	46	10.2	4.84
Average	0.554	1.886	204.05	0.58	1.437	33	11.7	3.1

Source: Compiled and calculated from data

1 - Ministry of Economic Development, a plan of economic and social development issues separate.

5-"Capital Condensation Coefficient (Coefficient of Employment): Capital intensity factor shows the ratio between agricultural investment and the number of agricultural workers is calculated as follow:

Capital intensification factor = agricultural investment/ agricultural workers

The lower the coefficient of employment indicates the number of workers increased by more than increased investment, which requires increasing the volume of investments to recruit more and contribute to solve the problem of unemployment. Coefficient reflects the employment component of the condensation of the capital or the condensation of the work item and thus reflects the contribution of the sector in employment. The data in Table (3) that the coefficient of employment ranges from a low of about 0.963 thousand pounds in 1995, an upper limit of about 1.929 thousand pounds in 2001, and estimated an annual average of 1.43 thousand pounds. Above clearly that employment factor greater than one indicating that the agriculture sector capital intensive except for 1995. This may reflect the tendency for farmers to use modern machinery and modern technologies in agriculture due to the high wages for agricultural labor.

6 - The coverage rate of saving schemes of agricultural of agricultural investment: shown in table No. (3) that the coverage rate of saving agricultural to agricultural investment ranging between a minimum of about 23% in 1997, an upper limit of about 46% in 2008, an average year an

estimated 33% during the study period. It is a clear already high rate of savings to cover the agricultural investment during the study period which may be due to higher savings and lower agricultural investments in agriculture, which means an imbalance in the relationship between equilibrium indicates to pass some savings to agricultural investment of non-agricultural.

7 - The tendency of the average agricultural Savings: reflects the change in the amount of average propensity to save agriculture and agricultural savings is calculated by dividing the farm income.

Average propensity to save agriculture l= save agriculture/agricultural income

Data from Table (3) that the tendency of the average savings ranging from a minimum at about 9.6% in 1995, an upper limit of about 14.4% in 2000, an average year an estimated 11.7% during the study period. Clear from the above average decline in the trend of saving during the study period. This may be due to low savings and increase agricultural income and, which means a relative imbalance in the equilibrium relationship between them.

8 - Factor productivity of agricultural investment: This measure reflects the profitability of a unit of money invested in the agricultural sector, calculated by dividing the agricultural income to agricultural investment:

Factor productivity of agricultural investment = agricultural income / agricultural investment

The data table (3) The coefficient of the agricultural productivity of investment between a low of about 2.02 in 2001, and a maximum 4.84 in 2008, and the average annual estimated 3.10 during the study period.

Economic variables affecting the agricultural investment in Egypt:
1 - Agricultural GDP Total: shown in table No. (4) that the total agricultural output fluctuates from year to year from a low of about 11.4 billion pounds, and a maximum of about 17.21 billion pounds, with an average annual rate of about 12.5 billion pounds during the period (1995-2008), The amount of annual change by about 0.52 billion pounds, an annual rate of statistically significant estimated 3.98% of the average of the period, reflecting the relative coefficient of variation (*) variation during the study period, where an estimated 19.9%.

2 - General deficit: Data from the previous table that the General deficit in fluctuates from year to year between the lower limit of about 9.6 billion pounds and a maximum of about 89.6 billion pounds, an average annual rate of about 37 billion pounds this, the amount of annual change about 7.16 billion pounds per year statistically significant change is estimated at 19.3%, and a coefficient of variation relative to 85.3 reflecting the differences in the General deficit during the study period.

3 - Agricultural income: it is clear from Table (4) that the real agricultural income ranges from a minimum of about 16.71 billion pounds and a maximum of about 27.67 billion pounds, an average annual rate of around 20 billion pounds. This may show that the income of agricultural growing annually by about 0.89 billion pounds and statistically significant annual rate of around 4.5% and the relative difference by a factor is reflecting the variation in per capita income of about 19.6% during the period (1995-2008).

4 - Evolution of value added: examine the development of value-added of the agricultural sector in real terms shows that they fluctuate from year to year between a minimum of about 12.8 billion pounds and a maximum of about 20 billion pounds, an average annual rate of about 14.7 billion pounds, this has increased in real value added annually by about 0.63 billion pounds, a statistically significant annual increase of about 4.3% and coefficient of variation reflects the relative differences in real value added of about 19.2% during the period (1995-2008).

5- Saving agriculture: Data from the Table No. (4) that saving agricultural real terms ranged from a minimum of about 1.46 billion pounds and a maximum of about 2.7 billion pounds, an average annual rate of around 2.46 billion pounds, this has increased saving agriculture at an annual rate significantly statistically is about a factor of 3.5% and the difference reflects the differences in agricultural savings of about 19.2% during the study period.

6 - agricultural loans: Data from the previous table to the relative stability of the value of agricultural loans, ranging from a minimum of about 2.1 billion pounds and a maximum of about 2.7 billion pounds and an average annual rate of around 2.55 billion pounds, this has increased agricultural loans during the study period at a rate statistically significant year of about 1.9% and the relative difference by a factor reflecting the variation in the value of agricultural loans of around 13.6%.

7 - agricultural workers: study of the evolution of agricultural employment during the period (1995-2008) shown in Table (4) to range between a minimum of about 4.75 million workers and a maximum of about 5.38 million workers by an average of about 4.58 million workers have taken this trend increased general statistically significant annual rate of change is about a factor of 1.44% and the difference reflects the relative convergence in a number of agricultural labor as an estimated 6.1% during the period of study.

8 - the interest rate on loans: The interest rate of the most important determinants of investment if the interest rates have risen, this is the decline of investments, while low interest rates lead to stimulate further investment, it is clear from Table (4) to range from a low of about 11.9% and a maximum of about 17% average annual rate of about 14.5%, this has increased at an annual rate of about statistically significant 3.7% relative difference by a factor reflecting the variation in interest rates on loans of around 11.6% during the period (1995-2008).

9 - Evolution of the dollar exchange rate of the pound: reflects the strength of the pound against the dollar and the data indicate the table number (4) that the exchange rate of the dollar is about 3.4 pounds, at a minimum, and about 6.2 pounds with an average maximum of about 4.62 pounds during the study period, and is growing annually by about 0.24 pounds, a statistically significant annual change of about 5.22% and a difference of a factor of about 24.2%, which reflects the differences in the exchange rate.

Table No. (4): Statistical analysis description of the most important Economic Variables affecting the Agricultural: total, domestic and Foreign Investments (1995-2008)

variable	Lower limit	Upper limit	The Average	Change rate %	R^2	F TEST	Variation coefficient
Agricultural local Output (million L.E)	11421	17206	12954..2	3.98	0.70	27.9**	19.9
General deficit (million L.E)	9623	89642	37012..2	19.33	0.90	105..9**	85.3
Actual Agric. Income (million L.E)	16709	27675	20041..3	4.49	0.92	137**	19.6
Value added (million L.E)	12841	20019	14709	4.31	0.88	85..9**	19.2
Agric. Reserve (million L.E)	141602	2678.3	2458	3.5	0.88	16.6**	19.2
Agric. Loans (million L.E)	2100	2710.5	2553.1	1.9	0.43	6.03**	13.6
Agric. Labours	4747	5380	4578	1.44	0.98	640**	6.1
Profit price	11.9	16	14.5	3.68	0.82	53..3**	11.6
$ exchange rate	3.4	6.2	4.62	5.22	0.81	51.6**	24.2
Actual Agric. Labour rent (L.E/YEAR)	1136	6841.6	2494..3	15.84	0.76	38.7**	75.9
Unagric. Investment billion L.E.	53.19	147.79	80.18	6.89	0.61	19.12**	36.8
Financial liquidity (million L.E)	52.9	115.23	77.85	6.74	0.89	98.65**	29.8

Source: Compiled and calculated from

1 - Central Agency for Public Mobilization and Statistics - Statistical Database, unpublished data.

2 - National Bank of Egypt, Economic Bulletin numbers sporadic.

3 - Ministry of Economic Development, reports of annual follow-up of the plan the number of sporadic.

10 - Evolution of the wage of agricultural real: between a minimum of about 1.14 thousand pounds at a minimum and about 6.84 thousand pounds, a maximum annual average is estimated at 2.5 thousand pounds, this has increased at an annual rate statistically significant estimated 15.8% and a factor of difference relative reflecting the variation in agricultural real wage of the worker is estimated at 75.9%.

11 - Evolution of investments for non-agricultural: Data from the table (4) shows, that the investments for non-agricultural fluctuate from year to year, ranging from a minimum of about 53.2 billion pounds and a maximum of about 147.8 billion pounds, an average annual rate of about 80.2 billion pounds during the period (1995 -2008), this has increased at an annual rate of about statistically significant 6.9%, which indicates that the non-agricultural sectors will attract investment, and the relative coefficient of variation was about 36.8, which reflects the differences in non-agricultural investments.

12 - domestic liquidity: As indicated in table (4) that, the local fluidity ranging from a minimum of about 0.053 billion pounds and a maximum of about 0.115 billion pounds, an average annual rate of around 0.078 billion pounds, this has increased domestic liquidity during the study period at an annual rate significantly statistically estimated by a factor of 6.74% and the relative difference amounted to about 29.8% reflecting the variation in the value of local liquidity.

Determinants of agricultural investment: It has been made several attempts to include various combinations of independent variables of the previous study to measure the impact on total agricultural investment and agricultural investment both domestic and foreign, to the possibility of obtaining estimates on the degree of efficiency using the method of regression staging in different images and select the best images that conform to signals with economic logic.

The most important factors affecting the total agricultural investments: show Equation (1) Schedule No. (5) that changes the equation explain about 86% of the changes in the value of total agricultural investment, as an increase in variables of value added agricultural income, savings and agricultural and domestic liquidity by one million pounds each of them individually leads to increase agricultural investment by 1.9, 2.54, 3.1 0.101400000 pounds, respectively. The effect was a negative interest rate on loans means that the high interest rates on agricultural loans lead to a decrease in agricultural loans and investments in agriculture and about 574 million pounds. The most important factors affecting the local agricultural investments:

Show equation (2) Schedule (5) that, the variables within the model explains about 85% of the changes in investment by local agriculture, and due to the value-added farm income and savings and agricultural domestic liquidity and interest rates on farm loans. As an increase in value-added farm income and saving agricultural and domestic liquidity

by one million pounds each of them individually lead to increased investment by local agricultural 1.54,2.12, 2.65 0.2670000 pounds, respectively. The effect was negative for a variable interest rate on loans means that the high interest rates lead to decreased agricultural loans, agricultural and domestic investment by about 464 million pounds.

The most important factors affecting foreign investments in agriculture:

Show the equation (3) table (5) that the factors affecting foreign investments in agriculture are in the GDP and the budget deficit and non-agricultural investments. Also show a positive correlation between GDP on foreign investments in agriculture since the increased One million pounds lead to increase foreign investments in agriculture by £ 7.673 million. While showing an inverse relation between the budget deficit and non-agricultural investments on foreign investments in agriculture as enhancing them one million pounds lead to a decrease in foreign investments in agriculture by about 0.024 0.0075000 pounds, respectively. The coefficient of determination shows that 78% of the changes in foreign investments in agriculture due to the previous variables.

Table No. (5): Statistical Estimation of the economic variables affecting the Agricultural: total, domestic and Foreign Investments (1995-2008)

n.q	Variable	F TEST	R^2	F TEST
1	Total Agr. Investments	$\hat{Y}_i = 20118 + 1.9\,X_{1i} + 2.54\,X_{2i} + 03.1X_{3i} + 101.4\,X_{4i} - 574\,X_{5i}$ $(2.532)^* \quad (3.955)^{**} \quad (3.22)^{**} \quad (2.687)^* \quad (2.82)^*$	0.86	9.59**
2	Domestic Agr. Investments	$\hat{Y}_i = 17058 + 1.54\,X_{1i} + 2.12\,X_{2i} + 2.65X_{3i} + 88.8\,X_{4i} - 464\,X_{5i}$ $(3.326)^{**} \quad (3.746)^{**} \quad (3.116)^{**} \quad (2.669)^{**} \quad (2.589)^*$	0.85	8.76**
3	Foreign Agr. Investments	$\hat{Y}_i = 1721 + 7.673\,X_{6i} - 0.024\,X_{7i} + 0.075X_{8i}$ $(3.899)^{**} \quad (4.378)^{**} \quad (2.538)^*$	0.78	6.96**

Where: $\hat{Y}_i$ = estimated value of the depended variable in i

X_{1i} = Value added (million L.E) in i. X_{2i} = Actual Agric. Income (million L.E) in i.

X_{3i} = Agric. Reserve (million L.E) in i. X_{4i} = Financial liquidity (million L.E) in i.

X_{5i} = % Profit price in i. X_{6i} = GDP (million L.E) in i.

X_{7i} = General deficit (million L.E) in i.

X_{8i} = non-agricultural investments (million L.E) in i.

Figures in parentheses represent the value of (T) calculated. *: Significant at 5%,   **: significant at 1%

Source: Compiled and calculated from research data.

References:

1 - Ahmed Bedier and others (2009): A Study of the Efficiency and the Determinants of Agricultural Investment in Egypt", 17 Conference of Agricultural Economists, Egyptian Journal of Agricultural Economics.

2 - Amani Ali Mohamed (2008): "Studying the efficiency of investment in the Egyptian Agricultural sector Egyptian", J. Agric. Economics, Vol. (18) No.(3) .

3 - National Bank of Egypt, Economic Bulletin, Number sporadic. 4 - Central Agency for Public Mobilization and Statistics, Annual Statistical Book, Set up different.

5 – Thnaa Nubian tribute Ahmed Salim (Dr.), an analytical study of the factors affecting the national security and agricultural investment in Egypt - The Egyptian Journal of Agricultural Economics - Volume 18 - Issue (3) - September 2008.

6 - SS Salah, Faten Kamal (doctors), the determinants of private agricultural investment in Savin Egypt - Egyptian Journal of Agricultural Economics - Volume 16 - Issue (1) - March 2006.

7 - Mona Ahmed Salim (a. D) An economic study of the most important factors affecting the agricultural investment local and foreign, in the light of global economic changes - Egyptian Journal of Agricultural Economics - moving 17 of Agricultural Economists - the financial crisis and global economic repercussions on the Egyptian Agriculture - October 2009.

8 - Ministry of Economic Development, reports annual follow-up of the plan the number of sporadic.

9/23/2010