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An Economic Study of the Most Important Factors Affecting Investment in Egypt

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Abstract

This study aims to clarify the Key Factors Influencing Egyptian Agricultural Investment and their effects and obstacles on development in Egypt by studying both the gross and agricultural GDP, both public and private macro-and agricultural investments, investment loans granted by the Development Bank and agricultural credit, studying some economic indicators to measure the efficiency of agricultural investments in Egypt, and identifying the most important factors For national, agricultural, foreign direct and foreign agricultural investments in Egypt during the period from (04/2005-21/2022). The study has reached a set of the following results: Through the data obtained to estimate the indicative relationships between each of the factors affecting total investments in billion pounds, it turned out that the most positive factors affecting total investments are each of the variables: the interest rate in the banking system in pounds, national income in billion pounds, and GDP in billion pounds, and increasing each of them (individually) by 1% leads to an increase in total investments by 0.41%, 2.74%, 0.07%, respectively. While increasing the variable: total employment in million pounds by the same percentage leads to a decrease in total investments by 1.13 %. By measuring the value of the total elasticity coefficient of this relationship, it turned out to be estimated at about 2.09, which means that there are returns on the increasing capacity of this relationship, which encourages an increase in resources affecting total investments with a positive impact.

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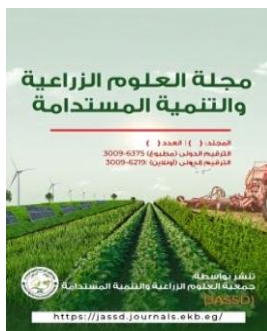
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Keywords: Agricultural, Investments, Efficiency, Agricultural Development.



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دراسة اقتصادية لأهم العوامل المؤثرة على الاستثمار في مصر

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الملخص العربي:

تهدف هذه الدراسة إلى توضيح العوامل الرئيسية المؤثرة على الإستثمار الزراعي المصري وأثارها ومعوقاتها على التنمية في مصر من خلال دراسة الناتج المحلي الإجمالي والزراعي، والاستثمارات الكلية والزراعية العامة والخاصة، وقروض الإستثمار الممنوحة من بنك التنمية، والإئتمان الزراعي، ودراسة بعض المؤشرات الاقتصادية لقياس كفاءة الإستثمارات الزراعية في مصر، وتحديد أهم العوامل المؤثرة على الإستثمار القومي، والإستثمارات الزراعية، والإستثمارات الأجنبية المباشرة، والإستثمارات الأجنبية في مصر خلال الفترة (2005/4-2022/21). توصلت الدراسة إلى مجموعة من النتائج التالية: من خلال البيانات التي تم الحصول عليها لتقدير العلاقات بين كل من العوامل المؤثرة على إجمالي الاستثمارات (مليار جنيه)، تبين أن أكثر العوامل إيجابية المؤثرة على إجمالي الاستثمارات هي كل من متغيرات: سعر الفائدة في الجهاز المصرفي (جنيه)، والدخل القومي (مليار جنيه)، والناتج المحلي الإجمالي (مليار جنيه)، وأن زيادة كل منها (على حدة) بنسبة 1% تؤدي إلى زيادة إجمالي الاستثمارات بنسبة 0.41%، 2.74%، 0.07%، على التوالي. بينما تؤدي زيادة متغير: إجمالي العمالة (مليون جنيه) بنفس النسبة إلى انخفاض إجمالي الاستثمارات بنسبة 1.13%. وبقياس قيمة معامل المرونة الكلية لهذه العلاقة، تبين أنها تقدر بحوالي 2.09، مما يعني وجود عوائد على زيادة سعة هذه العلاقة، مما يشجع على زيادة الموارد المؤثرة على إجمالي الاستثمارات بأثر إيجابي.

الكلمات المفتاحية: الزراعة، الاستثمارات، الكفاءة، التنمية الزراعية.

INTRODUCTION:

The agricultural sector is one of the main priority sectors within national economic and social reform program framework. The agricultural sector alone absorb about 19.46 % Average for the last 3 years of data (2020:2022) (**Annual Combined Bulletin: Labor Force Research Analytical Report, Central Agency for Public Mobilization and Statistics, Miscellaneous Issue**) of the total number of people employed in economic activities, the highest employment rate in the economic sector. Agriculture also contributes about 11.3% of GDP, and contributes to the country's export activity, at least 15% of total exports of non-oil goods. The private sector monopolizes about 44% of total agricultural investments in 2023/2024. National investments in general and agricultural investments in particular are considered to be the main engine and motivation for sustainable agricultural development to achieve the highest possible production, meet the increasing consumption rates (as a result of the increase in the population), and then raise the level of agricultural income at both the national and agricultural levels, thereby raising the standard of living and achieving real economic development. Agricultural investments are one of the main tools to achieve the agricultural development plan by raising productive efficiency in exploiting available resources to meet consumption requirements, developing productive capacities and increasing the agricultural labor force by absorbing new labor that contributes to reducing the unemployment level, thereby increasing income growth rates and achieving economic well-being.

RESEARCH PROBLEM:

The success of agricultural development policies depends on several factors, including the volume of agricultural investments, their proportion of total investments and the efficiency of their distribution in various fields. Therefore, the research problem is mainly limited to decrease of agricultural investments in Egypt, where the growth rate in agricultural investments decreased from 33% in 2020 to 29% in 2022 (**Mid-term plan for sustainable development, Ministry of Planning, Follow-up and Administrative Reform, 2019:2022**) and the impact of this on both agricultural and national income, output, employment and the entire economic structure, as well as the weakness of local financing for agricultural investments in line with the development that the agriculture sector should contribute to the national income in Egypt. In addition, the agricultural sector receives a low percentage of foreign investments coming to Egypt from abroad compared to other economic sectors, and the investor's unwillingness to invest in the agricultural sector, The agricultural sector's share of foreign direct investment (FDI) did not exceed 0.23% (**Mohamed and khaled, 2024**) representing the lowest percentage among economic sectors. This percentage ranged from a minimum of approximately 0.02% during 2020/2021 to a maximum of approximately 2.6% during 2009/2010 of total FDI inflows during the same period.

RESEARCH OBJECTIVES:

This research aims to shed light on:

- 1- Studying some economic indicators to measure the efficiency of agricultural investments in Egypt,

with the aim of identifying the most important factors determining national, agricultural, foreign direct, and foreign agricultural investments in Egypt during the period (2005-2022).

2- Agricultural investments and their impacts and constraints on development in Egypt, through a study of the gross domestic product (GDP) and agricultural products, total and agricultural investments (both public and private), and investment loans granted by the Agricultural Development and Credit Bank.

RESEARCH METHOD AND DATA SOURCES:

The research in data analysis was based on the descriptive and quantitative analysis method and one of the most important tools used in this regard were some statistical methods such as the regression analysis method in its full and graded forms, and the logarithmic model was also used within the research methodology..

The main data was obtained through published and unpublished data, records and reports issued by the Ministry of Investment, the Ministry of Economic Development, the Ministry of Agriculture, the General Authority for Investment and Free Zones, the central agency for public mobilization and statistics, the National Bank reports, and annual follow-up reports of economic plans. The study also relied on data published on the websites of the Ministry of Planning, the Central Agency for Public Mobilization and Statistics, the Central Bank of Egypt and the National Bank of Egypt, as well as data issued by the Central Department of Agricultural Economics at the Ministry of Agriculture during the period (04/2005-21/2022), as

well as scientific theses, researches and references closely related to the research topic.

STUDY RESULTS:

Investments are affected by many factors that positively or negatively affect them and their achievement rates of the desired goals. There are also many factors that affect investments in general and agricultural investments in particular, as well as foreign investments. Therefore, it was necessary to identify the most important factors affecting both national agricultural and foreign investments in Egypt as follows:

First-studying the impact of some factors on the Egyptian total investments:

Through the data obtained to estimate the semantic relationships between each of the factors affecting the total investments in billions of pounds " \hat{Y} " as a dependent variable on the one hand. And among each of the independent variables (in the previous year): [the trade balance deficit in one billion pounds "X1", total employment in one million workers "X2", total investment spending in one million pounds "X3", the interest rate in the banking system in pounds "X4", the interest rate on deposits "X5", domestic savings in one billion pounds "X6", national income in one billion pounds "X7", GDP in one billion pounds "X8" and net indirect taxes in billion pounds "X9" and the exchange rate of the dollar in pounds "X10"] as variables on the other hand to find out the extent of the impact of each of those independent factors on total investments during the period (04/2005-21/2022) .

Table (1) factors affecting total investments in Egypt during the period (04/2005-21/2022).

Year	Total investments in one billion pounds	The trade balance deficit is one billion pounds	Total employment in million workers	Total investment spending	The interest rate of the banking system	% Interest rate on deposits	Local savings of one billion pounds	National income in billion pounds	Gross domestic product in billion pounds	Net indirect taxes one billion pounds	Exchange rate pound / dollar
2005/04	96.4	32.04	21.7	96.8	10	7.7	84.6	506.5	506.5	24.7	5.75
May-06	115.4	53.06	22.8	115.7	9	7.2	186.2	640.1	581.1	30	5.788
Jun-07	155.3	39.5	23.8	155.3	10	6	246.7	758.8	710.3	34.4	5.748
Jul-08	199.5	61.33	24.6	200.5	9.6	6.1	287.5	911.1	855.3	40.2	5.644
Aug-09	197.1	144.61	25.3	200	9	6.6	309.2	1054.3	994.1	48.1	5.727
Sep-10	231.1	170.31	26.2	235.3	9.25	6.5	288.7	1200.1	1150.5	56.1	5.66
Oct-11	229.1	219.35	26.5	234.5	8.25	6.2	316.5	1350.1	1309.9	61.2	5.96
Nov-12	246.1	336.25	27	258.1	8.93	6.7	447.7	1640.8	1713.1	67	6.1
Dec-13	214.6	255.63	27.6	248.6	10.13	8.25	275.2	1814.1	1924.8	75.9	6.89
2014/13	265.1	256.82	27.9	308.3	10.25	9.25	396.3	2110.2	2205.5	96	7.09
2015/14	333.7	373.9	28.4	399.1	10.25	9.25	406.2	2425.3	2473.1	112	7.65
2016/15	392.1	478.3	28.9	472.9	15.75	14.75	592.2	2693.1	2674.4	114.5	10.2
2017/16	514.3	717.1	29.4	630	19.75	18.75	881.1	3441.8	3409.5	168	17.85
2018/17	633.2	941	28.8	787.7	17.75	16.75	999.3	4407.4	4333.8	201	17.88
2019/18	721.1	779.5	28.3	937.4	13.75	12.25	973.1	5135.2	5170.1	242.4	16.8
2020/19	850.2	653.3	28.6	1147.8	9.25	8.25	1189.1	5980.4	5526.9	254.8	15.88
2021/20	850.3	718.2	29.1	1156.4	9.25	8.25	1081.1	6540	6014.6	320.5	15.75
2022/21	866	801	29.9	1195.1	17.25	16.25	1135.3	8349.1	5997.5	415.8	19.27
Average	395.03	390.62	26.93	487.7	11.52	9.72	560.89	2831.02	2641.72	131.2	10.09

Source: - General Authority for investment and free zones. - Central agency for public mobilization and Statistics , International Information Network (Internet) . - Ministry of Planning, Economic and Social Development Plan, Miscellaneous numbers
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Through the results of statistical analysis to measure the impact of the aforementioned inputs on total investments and based on the values of both "P" and "R2", as well as the significance of the regression coefficients and the logic of the results obtained, it turned out that the logarithmic model is the best models expressing the function, and by examining the regression coefficients, it turned out that some of them are significant and others are not significant, so the linear graded model was used to

reach the best model consistent with economic logic and at the same time be statistically significant. From the results of the analysis of the graduated logarithmic model, as shown in Table (2), it turned out that the most positive factors affecting total investments are each of the variables: the interest rate in the banking system in pounds "X4", national income in billion pounds "X7", and GDP in billion pounds "X8", and increasing each of them (individually) by 1% leads to an increase in total

investments by 0.41%, 2.74%, 0.07%, respectively. While increasing the variable: total employment by one million workers "X2", by the same percentage leads to a decrease in total investments of 1.13 %. By measuring the value of the total elasticity coefficient of this relationship, it turned out to be

estimated at about 2.09, which means that there are returns on the increasing capacity of this relationship, which encourages an increase in resources affecting total investments with a positive impact.

Table (2): The indicative relationship of factors affecting total investments in Egypt during the period (04/2005-21/2022)

Model	Function	F Value	R ²
Full linearity	$\hat{Y} = 119.51 + 0.1X_1 - 7.86X_2 + 0.51X_3 + 19.69X_4 - 2.84X_5 + 0.06X_6$ <p style="text-align: center;">(0.93) (0.62-) (0.66) (0.92) (0.16-) (0.30)</p> $- 0.11X_7 + 0.03X_8 + 4.07X_9 - 15.68 X_{10}$ <p style="text-align: center;">(2.27) * (0.44-) (0.13) (2.34-) *</p>	145.85	0.99
Full logarithmic	$\text{Log } \hat{Y} = 1.80 + 0.08 \text{ Log } X_1 - 0.24 \text{ Log } X_2 + 0.98 \text{ Log } X_3 + 0.24 \text{ Log } X_4 -$ <p style="text-align: center;">(5.04)** (1.09-) (20.73)** (3.76)*</p> $- 0.21 \text{ Log } X_5 + 0.05 \text{ Log } X_6 - 0.19 \text{ Log } X_7 - 0.10 \text{ Log } X_8 + 0.12 \text{ Log } X_9$ <p style="text-align: center;">(3.83)* (1.87) (1.72-) (1.59-) (1.46)</p> $- 0.07 \text{ Log } X_{10}$ <p style="text-align: center;">(1.29-)</p>	4930.73	0.99
Logarithmic gradient	$\text{Log } \hat{Y} = -0.52 - 1.13 \text{ Log } X_2 + 0.41 \text{ Log } X_4 + 2.74 \text{ Log } X_7 + 0.07 \text{ Log } X_8$ <p style="text-align: center;">(-2.16) * (4.77) ** (5.93) ** (4.03)*</p>	275.82	0.99

Source: calculated from the data of Table (1) . Where: "y" total investments in one million pounds, "X1" trade balance deficit in one billion pounds, "X2" total employment in one million workers, "X3" total investment spending in one billion pounds, "X4" interest rate in the banking system in pounds, "X5" %interest rate on deposits, "X6" domestic savings in one billion pounds, "X7" national income in one billion pounds, "X8" GDP in one billion pounds, "X9" net indirect taxes in one billion pounds, "X10" the exchange rate of the dollar in pounds .

*: Moral at a moral level of 0.05%, **:moral at a moral level of 0.01 %.

Second: Studying the impact of some factors affecting agricultural investments in Egypt:

Through the data obtained to estimate the indicative relationships between each of the factors affecting agricultural investments in million pounds " \hat{Y} " as a dependent variable on the one hand and between the independent variables (in the previous year):[interest rate on agricultural loans "X1", the deficit of the agricultural balance in billion pounds "X2",

agricultural income in billion pounds "X3", crop area in million acres "X4", cultivated area in million acres "X5" and reclaimed area in Thousand Acres "X6", the exchange rate of the dollar in pounds "X7", the value of the agricultural GDP in billion pounds "X8", agricultural exports in billion pounds "X9", agricultural savings in billion pounds "X10" and employment On the other hand,] to find out the extent of the impact of each of these independent

factors on agricultural investments during the period (04/2005-21/2022).

Table (3) Some factors affecting agricultural investments in Egypt during the period (04/2005-21/2022).

Year	Interest rate on agricultural loans	The agricultural balance deficit is one billion pounds	Income value Agricultural Billion pounds	Interest rate on deposits	The interest rate of the banking system	Crop area In million acres	Cultivated area In million acres	Reclaimed area in Thousand Acres	Exchange rate EGP / USD
Apr-05	13	3.7	86.8	10	7.7	13.3	8.4	14.5	5.75
May-06	12	17.6	93.1	9	7.2	13.6	8.44	7.8	5.788
Jun-07	13	17.1	102.3	10	6	12.6	8.44	2.2	5.748
Jul-08	11.1	23.8	116.3	9.6	6.1	13.8	8.44	2.1	5.644
Aug-09	11.1	32.6	136.8	9	6.6	13.6	8.8	36.4	5.727
Sep-10	11.1	2.2	138.1	9.25	6.5	14	8.7	14.7	5.66
Oct-11	11.1	11.4	150.8	8.25	6.2	13.8	8.6	15.5	5.96
Nov-12	11.1	16.1	179.8	8.93	6.7	13.8	8.8	39	6.1
Dec-13	11.1	23.7	190.9	10.13	8.25	13.8	9	22.9	6.89
2014/13	10.5	30.7	203.6	10.25	9.25	13.8	9.09	22.6	7.09
2015/14	10.5	27.4	223.7	10.25	9.25	15.6	9.1	14.5	7.65
2016/15	10.5	39.6	224.9	15.75	14.75	15.8	9.13	38.5	10.2
2017/16	10.5	75.7	256.1	19.75	18.75	16.4	9.19	38.7	17.85
2018/17	10.5	98.1	329.3	17.75	16.75	16	9.33	59.2	17.88
2019/18	10.5	109.9	325.1	13.75	12.25	16.2	9.45	115.7	16.8
2020/19	11.2	106.4	346.4	9.25	8.25	16.3	9.59	81	15.88
2021/20	11.2	88.7	444.7	9.25	8.25	16.4	9.7	87.1	15.75
2022/21	11.2	164	404.8	17.25	16.25	13.9	8.7	163.2	19.27
Average	11.18	49.37	219.64	11.52	9.72	14.59	8.94	43.09	10.09

Source: - General Authority for investment and free zones. - Central agency for public mobilization and Statistics , International Information Network (Internet) .

- Ministry of Planning, Economic and Social Development Plan, scattered numbers.

- Includes land reclaimed by private sector companies and land reclaimed by land reclamation cooperatives.

Through the results of the statistical analysis of the linear and logarithmic models, as shown in tables (4 & 5), it turned out that the logarithmic model is the best, and from the results of the graduated logarithmic model, it turned out that the most influential factors on agricultural investments are: the interest rate on agricultural loans "X1", the agricultural balance deficit in one billion pounds "X2", agricultural income in one billion pounds

"X3", and the value of agricultural GDP in one billion pounds "X8". It also shows that by increasing both variables agricultural income in billion pounds "X3", and the value of agricultural GDP in billion pounds" X8 " by 1 % (separately), the value of agricultural investments will increase by 1.61%, 2.75%, respectively. While both variables increase the interest rate on agricultural loans "X1", and the agricultural balance deficit in

billion pounds "X2" by 1% (separately), the value of agricultural investments will decrease by 1.61%, 2.75% respectively. By calculating the total elasticity coefficient, it turned out to be estimated at

about 1.18, which means that there are increasing returns on capacity, and as these variables are combined, the values of agricultural investments will increase.

Table (4) Some of the factors affecting agricultural investments in Egypt during the period (04/2005 - 21/2022)

Year	Agricultural investments in billion pounds	Agricultural domestic product Billion pounds	% Of agricultural output of the total	% Of the agricultural investments of the college	The value of agricultural exports in billion pounds	The relative importance of the value of agricultural exports	Agricultural savings in billion pounds	The relative importance of agricultural savings	Agricultural employment in million workers	% For employment Agricultural
Apr-05	7.4	137.4	14.87	7.68	6.9	14.47	0.1	0.12	5.3	24.42
May-06	8	137.5	14.04	6.93	5.7	9.25	0.1	0.05	5.8	24.56
Jun-07	7.8	155.9	14.06	5.02	5.6	7.11	0.6	0.24	6.2	25.63
Jul-08	8.1	188.4	13.24	4.06	7.6	8.33	1.3	0.45	6.7	27.24
Aug-09	6.9	189.5	13.63	3.5	16.6	11.6	7.1	2.3	6.8	27.67
Sep-10	6.7	209.4	13.98	2.9	16.3	12.11	11.6	4.02	6.8	28.24
Oct-11	6.8	249.9	14.53	2.97	16.4	10.59	14.1	4.45	6.7	27.55
Nov-12	5.4	267.4	11.02	2.19	14.9	7.91	16.1	3.6	6.8	27.04
Dec-13	8.4	282.4	7.81	3.91	18.1	9.69	16.3	5.92	6.3	29.35
2014/13	11.6	305.4	8.1	4.38	19.5	9.76	18.7	4.72	6.7	28.32
2015/14	13.4	358.01	7.47	4.02	20.6	10.55	18.8	4.63	6.6	27.82
2016/15	16.2	367.59	9.28	4.13	25.7	11.16	18.8	3.17	6.4	25.61
2017/16	17.3	422.32	10.26	3.36	45.8	9.74	17.2	1.95	6.4	25.17
2018/17	21.6	543	9.52	3.41	44.7	8.53	17.1	1.71	5.6	23.96
2019/18	25.5	560.9	9.85	3.54	45.5	8.8	18.3	1.88	6.5	25.09
2020/19	43	594.63	10.11	5.06	42.9	9.23	20.1	1.69	6.9	27.62
2021/20	52.1	718.07	8.35	6.13	46.7	6.8	19.2	1.8	8.1	27.84
2022/21	73.1	738.65	7.81	8.44	62.3	6.36	19.6	1.7	8.5	28.43
Average	18.85	357	11	4.54	25.7	9.6	13.06	2.47	6.62	26.75

Source: - central agency for public mobilization and statistics "Foreign Trade Bulletin" Miscellaneous numbers

- The central agency for public mobilization and statistics "bulletin of income estimates from the agricultural sector" scattered numbers.
- The central agency for public mobilization and Statistics "Statistical Yearbook" Miscellaneous numbers
- The Ministry of Planning "Economic and Social Development Plan" scattered numbers.

Table (5): The indicative relationship of some factors affecting agricultural investments in Egypt during the period (04/2005-21/2022)

Model	Function	F Value	R2
Full linearity	$\hat{Y} = 52.9 + 9.11 X_1 + 0.36 X_2 + 0.07 X_3 + 4.53 X_4 - 16.1 X_5 - 0.11 X_6$ $- 3.53 X_7 + 0.03 X_8 + 0.66 X_9 + 0.13 X_{10} + 3.84 X_{11}$ <p>(2.28)* (1.64) (0.27) (1.00) (-1.00) (-1.13) (-1.46) (0.20) (0.91) (0.20) (1.06)</p>	26.11**	0.98
Full logarithmic	$\text{Log } \hat{Y} = 16.5 + 0.72 \text{ Log } X_1 + 0.07 \text{ Log } X_2 - 1.56 \text{ Log } X_3 - 1.58 \text{ Log } X_4$ $+ 5.17 \text{ Log } X_5 - 0.16 \text{ Log } X_6 - 0.50 \text{ Log } X_7 + 2.62 \text{ Log } X_8 + 0.97 \text{ Log } X_9$ $- 0.37 \text{ Log } X_{10} + 1.40 \text{ Log } X_{11}$ <p>(0.31) (0.62) (-0.74) (0.65) (0.93) (-1.10) (-0.57) (2.54)* (1.32) (-2.70)* (1.45)</p>	32.61**	0.97
Logarithmic gradient	$\text{Log } \hat{Y} = -14.93 - 2.02 \text{ Log } X_1 - 1.16 \text{ Log } X_2 + 1.61 \text{ Log } X_3 + 2.75 \text{ Log } X_8$ <p>(2.20)* (2.21)* (3.22)* (2.28)*</p>	36.60**	0.92

Source: calculated from tables 3-4 . Where: "Y e" agricultural investments in billion pounds, representing[the interest rate on agricultural loans "X1", the deficit of the agricultural balance in billion pounds "X2", agricultural income in billion pounds "X3", the crop area in million acres "X4", the cultivated area in million acres "X5" and the reclaimed area in Thousand Acres "X6", the exchange rate of the dollar in pounds "X7" and the value of the agricultural GDP in billion pounds "X8" and agricultural exports in billion EGP "X9" and agricultural savings in the amount of one billion EGP "X10" and agricultural labor in the amount of one million workers "X11"].

*: Morale is at a 5% morale level.

Third: Studying the impact of some factors affecting foreign investments in Egypt:

Through the data obtained, it was possible to estimate the indicative relations between foreign investments in the billion pounds " \hat{Y} " as a dependent variable on the one hand and between the independent variables (in the previous year):[total investments in the billion pounds "X1", general domestic investment in the billion pounds "X2", private domestic investment in the billion pounds "X3", the value of national exports in the billion pounds "X4", the value of national imports in the billion pounds "X5", the trade balance deficit in the billion pounds "X6" and national income in the billion pounds "X7", GDP in billion pounds, "X8", local liquidity in billion

pounds, "X9", local savings in billion pounds, "X10" and% for the interest rate on Deposits "X11" and the exchange rate of the dollar in pounds "X12"] as independent variables on the other hand to find out the extent of the impact of each of those independent factors on the total foreign investment in Egypt during the period (04/2005-21/2022) . As shown in Table (7), the statistical significance of both linear and logarithmic models in unproven.

Table (6) Some factors affecting the total foreign investments in Egypt during the period (04/2005-21/2022).

Year	Foreign investment one billion pounds	Total domestic investments Billion pounds	Public domestic investment Billion pounds	Private domestic investment one billion pounds	The value of national exports is one billion pounds	The value of national imports is one billion pounds	The trade balance deficit is one billion pounds	National income one billion pounds	The value of gross domestic product Billion pounds	Local liquidity one billion pounds	Local savings of one billion pounds	Interest rate on deposits	Exchange rate EGP / dollar
Apr-05	69.86	96.4	50	46.5	47.68	79.72	32.04	506.51	506.5	519.65	84.6	10	5.75
May-06	79.25	115.4	49.4	66.3	61.63	114.69	53.06	640.1	581.1	568.84	186.2	9	5.788
Jun-07	80.45	155.3	58.1	97.2	78.8	118.3	39.5	758.8	710.3	649.95	246.7	10	5.748
Jul-08	81.76	199.5	70.4	129.1	91.26	152.59	61.33	911.1	855.3	747.2	287.5	9.6	5.644
Aug-09	82.33	197.1	101.6	95.5	143.11	287.72	144.61	1054.3	994.1	809.69	309.2	9	5.727
Sep-10	55.69	231.1	105.1	126.7	134.59	304.9	170.31	1200.1	1150.5	892.49	288.7	9.25	5.66
Oct-11	83.36	229.1	87.3	141.8	154.85	374.2	219.35	1350.1	1309.9	957.04	316.5	8.25	5.96
Nov-12	37.89	246.1	92.5	153.6	188.35	524.6	336.25	1640.8	1713.1	1023.52	447.7	8.93	6.1
Dec-13	82.49	214.6	95.9	145.7	186.77	442.4	255.63	1814.1	1924.8	1186.99	275.2	10.13	6.89
2014/13	26.61	265.1	110.4	154.7	199.88	456.7	256.82	2110.2	2205.5	1429.43	396.3	10.25	7.09
2015/14	31.96	333.7	147.7	186	195.2	569.1	373.9	2425.3	2473.1	1734.18	406.2	10.25	7.65
2016/15	65.07	392.1	181.4	210.7	230.2	708.5	478.3	2693.1	2674.4	2116.12	592.2	15.75	10.2
2017/16	123.75	514.3	300.8	213.5	470	1187.1	717.1	3441.8	3409.5	3027.81	881.1	19.75	17.85
2018/17	123.96	633.2	470.4	250.7	523.8	1464.8	941	4407.4	4333.8	3553.63	999.3	17.75	17.88
2019/18	129.69	721.1	513.6	408.8	517	1296.5	779.5	5135.2	5170.1	3992.67	973.1	13.75	16.8
2020/19	130.79	850.2	491.3	358.9	465	1118.3	653.3	5980.4	5526.9	4686.88	1189.1	9.25	15.88
2021/20	117.38	850.3	491.3	359	686.6	1404.8	718.2	6540	6014.6	5731.54	1081.1	9.25	15.75
21/2022	100.48	866	494.3	471.7	979	1780	801	8349.1	5997.5	7353.46	1135.3	17.25	19.27
Average	83.48	395.03	217	201	297.4	688.1	390.62	2831.02	2641.72	2276.73	497.82	11.52	10.09

Source: General Authority for investment and free zones. - Central agency for public mobilization and statistics ,foreign trade bulletin, miscellaneous issues, International Information Network (Internet) . - Ministry of Planning, Economic and Social Development Plan, scattered numbers. - Ministry of planning website www.mop.gov.eg. - Ministry of investment, Information Systems sector, general authority for Investments and Free Zones.

Table (7): The indicative relationship of the factors affecting the total foreign investments in Egypt during the period (04/2005-21/2022)

Model	Function	F Value	R2
Full linearity	$\hat{Y} = 52.1 + 0.05 X_1 + 0.13 X_2 + 0.10 X_3 + 0.10 X_4 - 0.06 X_5 + 0.0 X_6 - 0.03 X_7$ $- 0.01 X_8 + 0.02 X_9 - 0.01 X_{10} - 5.50 X_{11} + 14.60 X_{12}$ <p>(1.04) (0.53) (0.36) (0.25) (-0.44) (0.0) (-0.50)</p> <p>(-0.47) (0.14) (-0.03) (-0.85) (1.46)</p>	3.23	0.93
Full logarithmic	$\text{Log } \hat{Y} = 11.9 + 0.14 \text{ Log } X_1 + 0.21 \text{ Log } X_2 + 1.03 \text{ Log } X_3 + 0.49 \text{ Log } X_4$ $+ 0.36 \text{ Log } X_5 - 0.12 \text{ Log } X_6 - 0.15 \text{ Log } X_7 - 1.28 \text{ Log } X_8 - 1.18 \text{ Log } X_9$ $- 0.43 \text{ Log } X_{10} - 1.16 \text{ Log } X_{11} + 2.88 \text{ Log } X_{12}$ <p>(0.04) (0.16) (0.78) (0.15)</p> <p>(0.49) (-0.03) (-0.03) (-0.56) (-0.34)</p> <p>(-0.40) (-1.27) (1.57)</p>	1.68	0.9

Source: calculated from Table (6). Where: "Y" foreign investments in billion pounds. "X1" total investments in one billion pounds. "X2" public domestic investment in one billion pounds, "X3" private domestic investment in one billion pounds, "X4" national exports in one billion pounds, "X5" national imports in one billion pounds, "X6" trade balance deficit in one billion pounds, "X7" national income in one billion pounds, "X8" top GDP in one billion pounds, "X9" domestic liquidity in one billion pounds, "X10" domestic savings in one billion pounds, "X11" price interest on deposits, "X12" exchange rate for dollars in pounds.

*: Morale is at a 5% morale level .

Fourth: Studying the impact of some factors affecting foreign agricultural investments in Egypt:

Through the data obtained, it was possible to estimate the indicative relationships between both foreign agricultural investments in million pounds "Y" as a dependent variable on the one hand, and between independent variables (in the previous year): [Total foreign agricultural investment in million EGP "X1", domestic public agricultural investment in million EGP "X2", domestic private agricultural investment in billion EGP "X3", the value of agricultural exports in billion EGP "X4", the value of agricultural imports in billion EGP "X5", the agricultural balance deficit in billion EGP "X6", agricultural income in billion EGP "X7", the value of agricultural GDP in billion EGP "X8", domestic liquidity in million EGP "X9" and % interest rate on deposits "X10" and the exchange rate of the dollar in pounds "X11"] as independent variables on the other hand to find

out the extent of the impact of each of those independent factors on foreign agricultural investments during the period (04/2005-21/2022). It turned out that the logarithmic model is the best representative of this relationship, as shown in Table (9) of this estimated model that there are some variables that had a positive impact and some of them had a negative impact on the total foreign agricultural investments, some of which are significant and some of them are not significant, which required the estimation of the graduated logarithmic model, the results of which showed that the most influential factors on foreign agricultural investments in Egypt during the period under study are. Total agricultural investments "X1", the value of agricultural exports "X4", the value of agricultural GDP "X8", the exchange rate of the pound in dollars "X11" It turned out that the logarithmic model is the best representative of this relationship.

Table (8) Factors affecting the total foreign agricultural investments in Egypt during the period (04/2005-21/2022).

Year	Agricultural foreign investment in million pounds	Total agricultural investment Billion pounds	Public agricultural domestic investment Billion pounds	Local private agricultural investment one billion pounds	The value of agricultural exports is one billion pounds	The value of agricultural imports Billion pounds	The agricultural balance deficit is one billion pounds	Agricultural income in billion Pound	The value of agricultural GDP Billion pounds	Local liquidity one billion pounds	Interest rate on deposits	Exchange rate pound / dollar
Apr-05	958.31	7.4	3.2	4.2	6.9	10.6	3.7	86.8	137.4	519.65	7.7	5.75
May-06	1320.38	8	2.7	5.2	5.7	23.3	17.6	93.1	137.5	568.84	7.2	5.788
Jun-07	2028.55	7.8	2.4	5.3	5.6	22.7	17.1	102.3	155.9	649.95	6	5.748
Jul-08	5561.67	8.1	2.8	5.2	7.6	31.4	23.8	116.3	188.4	747.2	6.1	5.644
Aug-09	7308.4	6.9	2.7	4.1	16.6	49.2	32.6	136.8	189.5	809.69	6.6	5.727
Sep-10	2470.26	6.7	2.8	3.8	16.3	18.5	2.2	138.1	209.4	892.49	6.5	5.66
Oct-11	10363.4	6.8	3.2	3.5	16.4	27.8	11.4	150.8	249.9	957.04	6.2	5.96
Nov-12	2565.17	5.4	2.6	2.6	14.9	31	16.1	179.8	267.4	1023.52	6.7	6.1
Dec-13	565.71	8.4	2.9	5.4	18.1	41.8	23.7	190.9	282.4	1186.99	8.25	6.89
2014/13	184.34	11.6	4.1	7.4	19.5	50.2	30.7	203.6	305.4	1429.43	9.25	7.09
2015/14	38.25	13.4	5.2	8.2	20.6	48	27.4	223.7	358.01	1734.18	9.25	7.65
2016/15	30.6	16.2	5.1	11.2	25.7	65.3	39.6	224.9	367.59	2116.12	14.75	10.2
2017/16	374.85	17.3	6.1	11.3	45.8	121.5	75.7	256.1	422.32	3027.81	18.75	17.85
2018/17	268.2	21.6	32.3	16.1	44.7	142.8	98.1	329.3	543	3553.63	16.75	17.88
2019/18	756	25.5	31.4	17.8	45.5	155.4	109.9	325.1	560.9	3992.67	12.25	16.8
2020/19	349.36	43	28.7	14.3	42.9	149.3	106.4	346.4	594.63	4686.88	8.25	15.88
2021/20	283.5	52.1	52.1	0	46.7	135.4	88.7	444.7	718.07	5731.54	8.25	15.75
21/2022	693.72	73.1	73.1	0	62.3	226.3	164	404.8	738.65	7353.46	16.25	19.27
Average	2006.7	18.85	14.63	6.98	25.7	75	49.37	219.64	357	2276.73	9.72	10.09

Source: General Authority for investment and free zones. - The central agency for public mobilization and statistics, "foreign trade bulletin", various issues. International Information Network (Internet).

Ministry of Planning, Economic and Social Development Plan, scattered numbers.

As shown in Table (9) of this estimated model that there are some variables that had a positive impact and some of them had a negative impact on the total foreign agricultural investments, some of which are significant and some of them are not significant, which required the estimation of the graduated logarithmic model, the results of which showed that the most influential factors on foreign agricultural investments in Egypt during the period under study are. Total agricultural investments "X1", the value of agricultural exports "X4".

Table (9) The indicative relations of the most important factors affecting the total foreign agricultural investments in Egypt during the period (04/2005-21/2022)

Model	Function	F Value	R ²
Full linearity	$\hat{Y} = 1997 + 406.7 X_1 + 8.15 X_2 - 636.5 X_3 + 343.7 X_4 + 97.9 X_5 + 0.01 X_6$ <p style="text-align: center;">(0.71) (0.06) (-1.99)* (1.00) (1.20) (-0.01)</p> $- 168.X_7 + 153.7 X_8 - 16.6 X_9 - 717.9 X_{10} + 733.9 X_{11}$ <p style="text-align: center;">(-2.04)* (1.99)* (-1.37) (-2.27)* (0.85)</p>	124.3**	0.84
Full logarithmic	$\text{Log } \hat{Y} = 36.0 - 3.3 \text{ Log } X_1 + 0.52 \text{ Log } X_2 - 0.23 \text{ Log } X_3 + 1.50 \text{ Log } X_4$ <p style="text-align: center;">(-2.01)* (0.96) (-5.07)** (1.36)</p> $+ 4.36 \text{ Log } X_5 - 0.80 \text{ Log } X_6 - 15.41 \text{ Log } X_7 + 11.70 \text{ Log } X_8 - 3.44 \text{ Log } X_9$ <p style="text-align: center;">(1.99)* (-0.85) (-8.29)** (2.14)* (-0.61)</p> $4.72 \text{ Log } X_{10} + 4.10 \text{ Log } X_{11}$ <p style="text-align: center;">(-7.06)** (1.96)</p>	185.6**	0.94
Logarithmic gradient	$\text{Log } \hat{Y} = 19.69 - 0.08 \text{ Log } X_1 + 1.10 \text{ Log } X_4 - 1.02 \text{ Log } X_8 + 0.60 \text{ Log } X_{11}$ <p style="text-align: center;">(-2.32)* (2.53)* (-3.56)* (5.62)**</p>	211.3	0.96

Source: calculated from Table (8). Where: "Y" the value of foreign agricultural investments in million pounds, "X1" total agricultural investment in billion pounds, "X2" general agricultural domestic investment in billion pounds, "X3" private agricultural domestic investment in billion pounds, "X4" agricultural exports in billion pounds, "X5" agricultural imports in billion pounds, "X6" agricultural balance deficit in billion pounds, "X7" agricultural income in billion pounds, "X8" agricultural GDP in billion pounds, "X9" total domestic deposits in billion pounds, "X10" deposit interest rate, "X11" dollar-pound exchange rate.

*: Morale is at a 5% morale level.

Fifth: Some obstacles to agricultural investment in Egypt:

(A) Administrative and procedural obstacles: It is represented by the multiplicity of bodies and entities that the investor must visit to obtain an investment license, in addition to the multiplicity of papers required for each entity and the routine complications that the investor faces as a result of not understanding the articles and texts of investment laws and regulations, which leads to a long period of obtaining electricity, water and buildings licenses, the length of the customs release period, the multiplicity of papers and their

complications, which ultimately disrupts and hinders the implementation and establishment of projects. Such things lead to frustration and have the consequence of weakening the incentive to invest.

(B) Economic constraints: It is they that are related to the investment climate in the country in terms of the determinants of economic policies and the degree of economic stability, the stability of exchange rates, the general level of prices and tax limits, ensuring investment and the transfer of profits and capital abroad and other economic factors associated with especially the freedom of

import and export. These factors interact with each other to determine the magnitude of the risk. The lower the risks in the state, the more opportunities for economic and political stability are created for it and the more opportunities are created for successful investment. The investor does not accept to invest in a country whenever the degree of risk in it increases, and there is no doubt that creating a good investment climate is one of the most important factors attracting investment. The economic determinants include the production and marketing determinants, while the marketing and export obstacles are influential in making the investment decision, and it is considered one of the most important items of feasibility studies for investment projects.

(C) Political obstacles: Political relations between states often affect economic relations between them, stopping them, and may go even further, canceling previously made agreements, freezing and confiscating the property of the Nationals of the other state. This obstacle is considered one of the important obstacles that affect the investment climate of the state, especially for foreign and Arab investment, therefore it is necessary to completely separate political relations and economic relations and provide adequate guarantees for investment, especially since most of the legal guarantees available come from internal domestic legislation that is subject to modification and change unilaterally.

(D) Information and promotional obstacles: The most important of them are not to advertise the available investment opportunities, not to provide market data and information that the investor is interested in and needs in making his investment decision, and the investor does not

know about any investment granted by the state and about the investment climate in it. This arises from the lack of interest in specialized investment centers and offices and their weak capabilities in fulfilling their duty to advertise and promote available investment opportunities inside and outside, and facilitate the investor's access to the information he requires necessary for feasibility studies for his investment project and facilitate the investor's task in obtaining technical approval for his project, and inform the decision-maker to raise investment problems in the sector to officials to help find the necessary solutions to them. Therefore, it was necessary to have a competent body that plays an active role in activating and promoting the investment opportunities available for agricultural investment in order to inform the investor, especially the Arab and Foreign, of the investment opportunities available, the Egyptian investment climate and the advantages of investing in Egypt. **RECOMMENDATIONS:**

- (1) Reducing the total number of workers, as increasing them leads to a decrease in total investments.
- (2) Continued focus on the investment climate to attract foreign and Arab investments, given the need to leverage total foreign and agricultural investment in Egypt, and also to ensure a balance in the sources of total capital flows to companies.
- (3) The General Authority for Investment should play a positive role in identifying investment opportunities available in the agricultural sector.
- (4) Directing more attention to the private sector, as it plays a significant role in the volume of Egyptian investments and also in the gross domestic product.
- (5) Directing more attention to the agricultural sector to address its structural imbalances by

increasing the volume and effectiveness of agricultural investments by providing an export surplus that contributes to bridging the deficit in Egypt's agricultural trade balance.

REFERENCES:

Ibrahim Youssef Ismail (1989), "The impact of foreign investment on agricultural development during the years 1974-1988", the second conference of Economics and development in Egypt and the Arab countries, Department of Agricultural Economics, Faculty of Agriculture, Mansoura University, March 1989.

Ahmed Al-Sad Al-Najjar (2005), "Egypt and the world - political imperatives for the development of the investment climate - economic strategic trends"(annual report), Al-Ahram Center for political and Strategic Studies, second year, January 2005.

Ahmed Badir Al-saadny, Ashraf Abdullah Al-fitani, Karima Zakaria Sayed (2009), "Efficiency and determinants of agricultural investment in Egypt", XVII Conference of agricultural economists (the global financial crisis and its repercussions

on agriculture), Egyptian society of agricultural economics, Cairo, October 14-15, 2009.

Inas Fahmy Hussein (2018), "The impact of foreign direct investment on the labor market in Egypt", Jordanian Journal of Economic Sciences, vol.5, No. 2, 2018.

Ministry of Planning and Economic Development

https://mped.gov.eg/?fbclid=IwAR3s_YqR3BKG74rvBKNZg3NTvKzXq6xatkTAuWCZ8mdlfoZ6Vs5BZvjTAds

General Authority for Investment and Free Zones

<https://www.investinegypt.gov.eg/Arabic/Pages/default.aspx>

Central Agency for Public Mobilization and Statistics

https://www.capmas.gov.eg/?fbclid=IwAR3y-juBaXtcC0q_17GQQXpKveDfH4Rx6FvbutYGsR8affQNDLzdz2k9_jg

Ministry of Agriculture

<http://www.agr-egypt.gov.eg/>

Ministry of Economic Development

<http://www.mop.gov.eg/>