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### An Economic Study of the Investment Climate in Egypt

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### ABSTRACT

The investment climate means a set of factors associated with society, including individuals, organizations, sectors and political, economic, social and other trends, as well as a set of government policies announced with its political, economic and social trends and indicators, and a set of objectives were studied in this research, the most important of which are: **First**: Sectoral distribution of companies established in accordance with the various investment laws: **Second**: Geographical distribution of new companies established, estimates of job opportunities and issued capital for the year 2005/2022. **Third**: Total deposits and deposits of the agricultural sector in local and foreign currency. **Fourth**: Total balances and balances of the agricultural sector in local and foreign currency in Egypt. **Fifth**: Agricultural finance and its importance in Egypt. **Sixth**: Investment loans granted by the Agricultural Bank of Egypt.

Keywords: economic and social trends, investment laws, foreign currency, Egypt

### 1. Introduction

The investment climate refers to the set of factors associated with society, including individuals, organizations, sectors and political, economic, social and other trends, as well as the set of declared government policies with their political, economic and social trends and indicators <sup>(1)</sup>. Where the state is working to create a strong investment climate that suits the requirements of the national country and attract external demand for investment in Egypt, and the state is currently working in light of the fundamental changes in all fields (political, economic, and social) to restructure the national investment map in all fields, activate and support the role of the private sector and increase its investments in various productive fields, and maximize the use of technical, administrative, organizational and marketing competencies and expertise available in the private sector, with the establishment of a database on Investment opportunities In addition to legislative reforms with new labor laws, preventing monopoly and eliminating red tape problems, although investment in the agricultural sector is one of the main pillars of the investment climate in Egypt, it still represents a very low percentage of total investments, despite its vital role in the national development of the country, and it is the single most sustainable and durable investment during economic crises.

In this study, the sectoral distribution of the new companies that have been established and the expansions in the existing companies in the total sectors and the agricultural sector will be identified, the sectoral distribution of the companies that were established in accordance with the various investment laws during the period from (1/1/1970), the sectoral distribution of the issued capital of the new companies that have been established and the expansions in the existing companies in the total sectors and the agricultural sector, the contributions of Egyptians and foreigners in the issued capital, and the geographical distribution of the new companies that have been Its establishment, estimates of

<sup>&</sup>lt;sup>1</sup>Arab Investment Guarantee Corporation, "Investment Climate in the Arab World", paper presented to the Third Arab Forum at Mansoura University, 1990.

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employment opportunities and issued capital, and each of (total deposits and deposits of the agricultural sector in local and foreign currency, total balances and balances of the agricultural sector in local and foreign currency, total lending and lending to the agricultural sector from public sector banks in local and foreign currency, total lending and lending to the agricultural sector from private sector banks in local and foreign currency).

**First**: Sectoral distribution of companies established in accordance with the various investment laws: **1. Internal Investment Companies:** 

By studying the sectoral distribution of the total number of companies that were established according to internal investment during the period from (1/1/2021 to 30/6/2022), which is shown in Table (1), it is clear that it amounted to about 47,976 companies. Where it was found that the industrial sector ranked first with about 23,657 companies by 49.3% of the total number of companies, and the services sector came in second place with about 6,539 companies by about 13.6% of the total number of companies, then the agriculture sector in third place with about 5,962 companies and by 12.4% of the total number of companies.

The ICT sector ranked fourth with about 3994 companies by 8.3%, the tourism sector came in fifth place with about 3404 companies and 7.1%, then the construction sector ranked sixth with about 3214 companies and 6.7%, and finally the finance sector ranked seventh with about 1206 companies and 2.1% of the total number of companies, and it is clear from the previous results that there is no balance in the total sectoral distribution of the number of internal investment companies that have been established.

#### 2. Free Zone Companies

By studying the sectoral distribution of the total number of companies that were established according to the free zones during the period from (1/1/1970 to 30/6/2013), shown in Table (23), it is clear that it amounted to about 1702 companies. Where it was found that the services sector ranked first with about 833 companies, representing 48.9% of the total number of companies, and the industrial sector came in second place with about 784 companies, amounting to about 46.1% of the total number of companies, then the communications and information technology sector in third place with about 56 companies and 3.3% of Total number of companies.

The finance sector ranked fourth with about 23 companies by 1.4%, the agriculture sector came in fifth place with about 4 companies and by 0.2%, and finally the construction and tourism sectors ranked sixth with about 1 company each and by 0.1% in each of the two sectors, and it is clear from the previous results that there is no balance in the total sectoral distribution of the number of internal investment companies that have been established.

#### 3. Law 159 companies

By studying the sectoral distribution of the total number of companies established in accordance with Law 159 during the period from (1/1/2021 to 30/6/2022), which is shown in Table (1), it is clear that it reached about 45,131 companies. Where it was found that the services sector ranked first with about 26,478 companies, by 58.7% of the total number of companies, and the construction sector came in second place with about 7,312 companies, amounting to about 16.2% of the total number of companies, then the industrial sector in third place with about 4,708 companies and by 10.4% of the total number of companies.

The tourism sector ranked fourth with about 3487 companies by 7.7%, the ICT sector came in fifth place with about 1607 companies and a percentage of 3.6%, then the construction sector ranked sixth with about 1116 companies and a percentage of 2.5%, and finally the finance sector ranked seventh with about 423 companies and by 0.9% of the total number of companies, and it is clear from the previous results that there is no balance in the total sectoral distribution of the number of Law 159 companies that were established.

Table 1: Sectoral Distribution of Companies Established in accordance with the Different Investment Laws during the Period from (1/1/	2021 to 30	/6/2022)
(Million EGP).		

	Inward Investment				Free Zones				Law 159			
Sector	Number of Companies	%	Issued Capital (Million EGP)	%	Number of Companies	%	Issued Capital (Million USD)	%	Number of Companies	%	Issued Capital (Million pounds)	%
Communications and Information Technology	1575	13.62	1093.43	3.16	2.00	5.00	6.30	14.22	824.00	5.18	585.78	0.73
Construction	799	6.91	9393.40	27.12	0.00	0.00	0.00	0.00	3.63	0.02	47733.80	59.20
Financing	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	27.00	0.17	1420.92	1.76
Services	3367	29.12	6512.98	18.81	18.00	45.00	18.00	40.63	13716.00	86.30	22491.76	27.89
Agriculture	1263	10.92	2633.52	7.60	0.00	0.00	0.00	0.00	229.00	1.44	916.74	1.14
Tourism	212	1.83	633.29	1.83	0.00	0.00	0.00	0.00	248.00	1.56	1418.32	1.76
Industry	4347	37.59	14367.61	41.48	20.00	50.00	20.00	45.15	846.00	5.32	6065.25	7.52
Total	11563	100	34634.23	100	40.00	100	44.30	100	15893.63	10.	80632.57	100

Source:

1- Ministry of Investment -Website www.investment.gov.eg.

2- General Authority for Investment and Free Zones, Information Systems Center, unpublished data.

**Second:** Geographical distribution of new companies established, estimates of job opportunities in them, and issued capital for the year 2021/2022:

#### 1. Geographical distribution of new companies established

By studying the geographical distribution of the total number of companies for the year 2021/2022, shown in Table (2), it is clear that it reached about 8945 companies. It was found that Cairo Governorate ranked first with about 4082 companies by 45.6% of the total number of companies, Giza Governorate came in second place with about 1900 companies by about 21.2% of the total number of companies, then Lower Egypt governorates in third place with about 1278 companies and 14.3% of the total number of companies.

The governorates of Upper Egypt ranked fourth with about 674 companies by 7.5%, Alexandria came in fifth place with about 580 companies and by 6.5%, then the Canal governorates in sixth place with about 246 companies and by 2.8% and finally the border governorates were in seventh place with about 185 companies and by 2.1% of the total number of companies, and it is clear from the previous results that there is no balance in the total geographical distribution of the number of companies in the governorates of the Republic.

#### 2. Geographical distribution of job opportunity estimates in new companies established

By studying the geographical distribution of the total estimates of the number of job opportunities in the new companies that were established for the year 2021/2022, shown in Table (2), it is clear that it amounted to about 95,493 job opportunities. It was found that Cairo Governorate ranked first with about 30,844 job opportunities by 32.3% of the total number of job opportunities, and the governorates of Lower Egypt came in second place with about 16,310 job opportunities by about 17.1% of the total number of job opportunities, then Giza Governorate ranked third with about 15,528 job opportunities and 16.3% of the total number of job opportunities.

The governorates of Upper Egypt ranked fourth with about 11,867 job opportunities by 12.4%, Alexandria came in fifth place with about 11,442 job opportunities and 12%, then the Canal governorates in sixth place with about 7,450 job opportunities and 7.8%, and finally the border governorates were in seventh place with about 2,052 job opportunities and 2.1% of the total number of job opportunities, and it is clear from the previous results that there is no balance in the total geographical distribution of the number of job opportunities in the governorates of the Republic.

#### 3. Geographical distribution of the issued capital of the new companies that have been established

A study of the geographical distribution of the total issued capital of the new companies established for the year 2021/2022, shown in Table (2), shows that it amounted to about EGP 11,193 million. It was found that Cairo Governorate ranked first with about EGP 4549 million by 40.6% of the total issued capital, Giza Governorate came in second place with about EGP 1938 million by about 17.3% of the total issued capital, then Lower Egypt governorates in third place with about EGP 1873 million and 16.7% of the total issued capital.

Statement	Number of Companies	%	Issued Capital (Million EGP)	%					
Cairo	4386	51.81	14668.5	55.90					
Giza	1509	17.82	5547.7	21.14					
Alexandria	484	5.72	690.8	2.63					
Lower Egypt Governorates	1410	16.65	3487	13.29					
Governorates of Upper Egypt	427	5.04	1073	4.09					
Canal Governorates	145	1.71	195.4	0.74					
<b>Border Governorates</b>	105	1.24	578	2.20					
Total	8466	100	26240.4	100					

 Table 2: Geographical Distribution of New Companies Established, Estimates of Job Opportunities and Issued Capital for the Year 2021/2022.

Source: Ministry of Investment website, performance report of the Ministry of Investment and its affiliates www.investment.gov.eg.

The governorates of Upper Egypt ranked fourth with about EGP 1044 million by 9.3%, Alexandria came in fifth place with about EGP 1028 million and by 9.2%, then the Canal governorates in sixth

place with about EGP 639 million and by 5.7% and finally the border governorates were in seventh place with about EGP 122 million and 1.1% of the total issued capital, and it is clear from the previous results that there is no balance in the geographical distribution of the total issued capital of the new companies that have been established. in the governorates of the Republic.

Third: Total deposits and deposits of the agricultural sector in local and foreign currency:

#### 1. Deposits in local currency:

#### A. Total Deposits

Table (3) shows the total deposits in local currency during the period (2005-2022), where it was found that the value of total deposits in local currency ranged between two limits, the lowest amounting to about EGP 369067 million in 2006, and the highest amounting to about EGP 7353461 million in 2022, with an annual average of about EGP 210964.00 million during the aforementioned period.

From the results of the general time trend analysis shown in Table (26), it was found that the results of the time trend analysis were not statistically confirmed the significance of the estimated model of the value of total agricultural investments during the period (2005-2022).

#### **B.** Agricultural Sector Deposits

Table (3) shows the deposits of the agricultural sector in local currency during the period (2005-2022), where it was found that the value of the deposits of the agricultural sector ranged between two limits, the lowest amounting to about 2215 million pounds in 2006, with a contribution of about 0.55% of the total deposits of the agricultural sector in 2006, and the highest amounted to about 14244 million pounds in 2022, with a contribution of about 0.19% of the total deposits of the agricultural sector in 2022, with an annual average of about 6155.17 million pounds during the aforementioned period.

From the results of the analysis of the general time trend shown in Table (4), it was found that there was an annual statistically significant increase estimated at EGP 548,401 million, equivalent to about 8.99% of the general average of the total deposits of the agricultural sector in local currency during the average period mentioned above. From the coefficient of determination (R2), it was found that about 74% of the changes in the total deposits of the agricultural sector in local currency are due to the element of time and 26% are due to other factors not measured in the estimated model.

#### 2. Foreign Currency Deposits

#### A. Total Deposits

Table (3) shows the total deposits in foreign currency during the period (2005-2022), where it was found that the value of total deposits in foreign currency ranged between two limits, the lowest of which amounted to about EGP 150582 million in 2005, and the highest reached about EGP 1066407 million in 2023, with an annual average of about EGP 455,442.78 million during the aforementioned period.

From the results of the general time trend analysis shown in Table (26) and from the results of the special time trend analysis shown, the significance of the estimated model of the value of total deposits during the period (2005-2022) was not statistically confirmed.

#### **B.** Agricultural Sector Deposits

Table (3) shows the agricultural sector's deposits in foreign currency during the period (2005-2022), where it was found that the value of the agricultural sector's deposits in foreign currency ranged between two limits, the lowest of which amounted to about 2521 million pounds in 2006, with a contribution of about 0.55% of the total foreign currency deposits in 2006, and the highest amounted to about 7353461 million pounds in 2022, with a contribution rate of about 0.19% of the total foreign currency deposits in 2022, with an annual average of about 1574.39 million pounds during the previous period. Mentioning.

From the results of the analysis of the general time trend shown in Table (4), it was found that there was an annual statistically significant increase estimated at about EGP 148,203 million, equivalent to about 9.41% of the general average of the total deposits of the agricultural sector in foreign currency during the average period mentioned above. From the coefficient of determination (R2), it was found that about 83% of the changes in the total foreign currency deposits of the agricultural sector are due to the time element and 17% due to other factors not measured in the estimated model.

Table 3: Total Deposits and Deposits of the Agricultural Sector in Local a	and Foreign Currency in Egypt
during the period (2005-2022) (in million pounds)	

	Loca	l currency depo	osits	Foreign currency deposits					
-	Total	Agricultural	% of	Total	Agricultural	% for sector			
Year	Deposits	Sector	agricultural	Deposits	Sector	deposits			
		Deposits	sector		Deposits	Agricultural			
			deposits						
2005	369067	2548	0.69	150582	831	0.55			
2006	401143	2215	0.55	167698	855	0.51			
2007	463320	2531	0.55	186633	467	0.25			
2008	552079	5673	1.03	195120	1002	0.51			
2009	598587	6323	1.06	211107	904	0.43			
2010	686052	5072	0.74	206440	930	0.45			
2011	724878	3792	0.52	232159	771	0.33			
2012	777806	2820	0.36	245711	935	0.38			
2013	896477	3313	0.37	290508	1272	0.44			
2014	1093686	4444	0.41	335746	1246	0.37			
2015	1369674	5272	0.38	364504	1640	0.45			
2016	1691590	6851	0.41	424527	1976	0.47			
2017	3027811	6263	0.21	907024	2395	0.26			
2018	3553634	7962	0.22	832216	2237	0.27			
2019	3992673	9264	0.23	824594	2221	0.27			
2020	4686875	10382	0.22	771482	2087	0.27			
2021	5731539	11824	0.21	785512	2982	0.38			
2022	7353461	14244	0.19	1066407	3588	0.34			
Average	2109464.00	6155.17	0.46	455442.78	1574.39	0.38			

Source: Central Bank of Egypt, Economic Magazine, miscellaneous.

Note: The rest of the economic activities include (trade, services, undistributed sectors).

Table 4:	Equations	of the	general	time	trend	of the	values	of	total	deposi	ts and	deposits	of	the
	agricultura	l sector	in local	and fo	oreign	currenc	y in Eg	ypt	durir	ng the p	eriod (	2005-202	2)	

Statement		Equation	R2	F	Annual rate of change (%)
Deposits In local	Total Deposits	Ŷi= 1236001.647-35214.279 Xi (7.76) **	0.79	60.23	166.93
currency	Agricultural Sector Deposits	Ŷi= 945.353-548.401 Xi (6.526) **	0.73	42.586	8.9
Foreign currency deposits	Total Deposits	Ŷi= 46724.007-52859.662 Xi (8.60) **	0.83	74.036	11.6
	Agricultural Sector Deposits	Ŷi= 166.45-148.203 Xi (9.01) **	0.83	81.25	9.41

where: Ŷi refers to the estimated values of the phenomenon under study in year i,

The X refers to the order of the time element where  $i = 1, 2, 3, 4, \dots$  (18.

\* Significant at the level of 5%. \*\*: Significant at the level of 1%.

Source: Calculated from: Table 3.

Fourth: Total balances and balances of the agricultural sector in local and foreign currency in Egypt:

## 1. Balances in local currency

#### A. Total Balances

Table (5) shows the total balances in local currency during the period (2005-2022), where it was found that the value of the total balances in local currency ranged between two limits, the lowest of which amounted to about 232141.00 million pounds in 2005, and the highest of which amounted to about 2864139.00 million pounds in 2022, with an annual average of about 798166.00 million pounds during the aforementioned period.

From the results of the analysis of the general time trend shown in Table (28), the significance of the estimated model of the value of total balances in local currency during the period (2005-2022) was not statistically confirmed.

Years	Balances	in local currency	7	Fore	Foreign currency balances			
_	Total Balances	Agricultural Sector Balances	%	Total Balances	Agricultural Sector Balances	%		
2005	233141.00	5822.00	2.50	75054.00	619.00	0.82		
2006	238926.00	4902.00	2.05	85115.00	829.00	0.97		
2007	248544.00	6986.00	2.81	105202.00	929.00	0.88		
2008	267166.00	5758.00	2.16	134259.00	863.00	0.64		
2009	295192.00	5137.00	1.74	134765.00	2165.00	1.61		
2010	313654.00	4856.00	1.55	152336.00	1554.00	1.02		
2011	327764.00	6800.00	2.07	146375.00	2314.00	1.58		
2012	364175.00	4822.00	1.32	142561.00	1398.00	0.98		
2013	387880.00	4853.00	1.25	161240.00	1366.00	0.85		
2014	418371.00	5148.00	1.23	169481.00	1666.00	0.98		
2015	479357.00	5843.00	1.22	238642.00	2595.00	1.09		
2016	672578.00	8408.00	1.25	270149.00	2054.00	0.76		
2017	867213.00	8266.00	0.95	559244.00	2743.00	0.49		
2018	1066324.00	12863.00	1.21	563340.00	2405.00	0.43		
2019	1274060.00	19519.00	1.53	580266.00	2319.00	0.40		
2020	1675491.00	28596.00	1.71	524890.00	2808.00	0.53		
2021	2373023.00	34627.00	1.46	530700.00	2710.00	0.51		
2022	2864139.00	50497.00	1.76	700532.00	3808.00	0.54		
Average	798166.56	12427.94	1.65	293008.39	1952.50	0.84		

Table 5:	Total Balances a	and Balances	of the	Agricultural	Sector in	Local a	nd Foreign	Currency in
	Egypt during the	Period (200	5-2022)	(Million EC	GP)			

Source: Central Bank of Egypt, Economic Magazine, miscellaneous.

 Table 6: Equations of the general time trend of the values of total balances and balances of the agricultural sector in local and foreign currency in Egypt during the period (2000-2013)

Statement		Equation	R2	F	rate of change (%)
Balances in	<b>Total Balances</b>	Ŷi= 371242.993+123095.742 Xi (6 233) **	0.708	38.853	15.42
currency	Agricultural	Ŷi= 4554.928-1798.197 Xi	0.559	20.07	14.47
	Sector Balances	(4.480) **			
Foreign currency	Total Balances	Ŷi= 1236001.647-352154.279Xi (8.694) **	0.825	75.582	12.43
balances	Agricultural Sector Balances	Ŷi= 619.70+140.29Xi (7.201) **	0.87	51.84	7.18

where: Ŷi refers to the estimated values of the phenomenon under study in year i,

The X refers to the order of the time element where  $i = 1, 2, 3, 4, \dots$  (18.

\* Significant at the level of 5%. \*\*: Significant at the level of 1%. Source: Calculated from: Table 5.

## **B.** Agricultural Sector Balances

Table (5) shows the balances of the agricultural sector in local currency during the period (2005-2022), where it was found that the value of the agricultural sector's balances ranged between two limits, the lowest amounting to about 4829.00 million pounds in 2012, with a contribution of about 1.32% of the total balances of the agricultural sector in 2012, and the highest amounting to about 50497.00 million pounds in 2022, with a contribution of about 1.76% of the total balances of the agricultural sector in

local currency in 2022, with an annual average of about 12427.94 million pounds during the previous period. Mentioning.

From the results of the analysis of the general time trend shown in Table (6), the significance of the estimated model of the value of the total balances of the agricultural sector in local currency during the period (2005-2022) was not statistically confirmed.

#### 2. Foreign currency balances

#### A. Total Balances

Table (5) shows the total foreign currency balances during the period (2005-2022), where it was found that the value of the total foreign currency balances ranged between two limits, the lowest of which amounted to about 75054.00 million pounds in 2005, and the highest of which amounted to about 700532.00 million pounds in 2022, with an annual average of about 293008.39 million pounds during the aforementioned period.

From the results of the analysis of the general time trend shown in Table (28), the significance of the estimated model of the value of total balances in foreign currency during the period (2005-2022) was not statistically confirmed.

#### **B.** Agricultural Sector Balances

Table (5) shows the balances of the agricultural sector in foreign currency during the period (2005-2022), where it was found that the value of the agricultural sector's balances in foreign currency ranged between two limits, the lowest amounting to about 619.00 million pounds in 2005, with a contribution rate of about 0.082% of the total foreign currency balances in 2005, and the highest amounting to about 3808.00 million pounds in 2022, with a contribution of about 0.54% of the total foreign currency balances in 2022, with an annual average of about 1952.50 million pounds during the previous period. Mentioning.

From the results of the analysis of the general time trend shown in Table (6), it was found that there was an annual statistically significant increase estimated at about EGP 140,294 million, equivalent to about 12.43% of the general average of the total balances of the agricultural sector in foreign currency during the average period mentioned above. From the coefficient of determination (R2), it was found that about 76% of the changes in the total stocks of the agricultural sector in foreign currency are due to the time element (24%) due to other factors not measured in the estimated model.

#### Fifth: Agricultural finance and its importance in Egypt:

#### 1. Total loans from public sector banks in local and foreign currency in Egypt:

#### A. Total Lending in Local Currency:

Table (7) shows the total lending (in local currency) from public sector banks during the period (2005-2021), where it was found that the value of total lending (in local currency) ranged between two limits, the lowest of which amounted to about EGP 18097.00 million in 2007 and the highest reached about EGP 124850.50 million in 2021, with an annual average of about EGP 56302.09 million during the aforementioned period.

From the results of the analysis of the general time trend shown in Table (8), the significance of the estimated model of the value of total lending (in local currency) during the period (2005-2022) was not statistically confirmed.

#### **B.** Lending to the agricultural sector in local currency

Table (7) shows the total agricultural sector loans (in local currency) from public sector banks during the period (2005-2021), where it was found that the value of total agricultural sector loans (in local currency) ranged between two limits, the lowest of which amounted to about EGP 2.00 million in 2015 and the highest of about EGP 105.0 million in 2011, with an annual average of about EGP 25.22 million during the aforementioned period.

From the results of the general time trend analysis shown in Table (8), the significance of the estimated model of total agricultural sector loans (in local currency) from public sector banks during the period (2005-2022) was not statistically confirmed.

#### C. Foreign currency lending sentence

Table (7) shows the total lending (in foreign currency) from public sector banks during the period (2005-2021), where it was found that the value of total lending (in foreign currency) ranged between two limits, the lowest of which amounted to about EGP 6091.0 million in 2007, and the highest reached about EGP 52680.0 million in 2017, an annual average of about EGP 19271.85 million during the aforementioned period.

From the results of the analysis of the general time trend shown in Table (8), the significance of the estimated model of the value of total lending (in foreign currency) from public sector banks during the period (2005-2022) was not statistically confirmed.

Table 7: Total Lending and Lending of the Agricultural Sector from Public Sector Banks in Local a	ınd
Foreign Currency in Egypt during the Period (2005-2021) (Million EGP)	

	Loans	in local currency		Foreign currency loans				
Year	Total Lending	Lending to the agricultural sector	%	Total lending	Lending to the agricultural sector	%		
2005	30165.00	16.00	0.05	7077.00	-	-		
2006	26269.00	59.00	0.22	6367.00	-	-		
2007	18097.00	7.00	0.04	6091.00	-	-		
2008	19475.00	11.00	0.06	7177.00	-	-		
2009	23725.00	3.00	0.01	9155.00	-	-		
2010	21051.00	3.00	0.01	8761.00	-	-		
2011	24560.00	105.00	0.43	8128.00	-	-		
2012	31581.00	-	-	8836.00	-	-		
2013	33674.00	-	-	8993.00	-	-		
2014	35107.00	21.00	0.06	9993.00	-	-		
2015	43742.00	2.00	0.01	19228.00	-	-		
2016	65168.00	-	-	27663.00	-	-		
2017	95621.00	-	-	52680.00	-	-		
2018	114349.00	-	-	45228.00	-	-		
2019	125346.00	-	-	36434.00	-	-		
2020	124355.00	-	-	31729.00	-	-		
2021	124850.50			34081.50				
Average	56302.09	25.22	0.10	19271.85				

Source: Central Bank of Egypt, Economic Magazine, miscellaneous issues.

 Table 8: General Time Trend Equations for Total Lending and Agricultural Sector Lending Values from public sector banks in local and foreign currency in Egypt during the period (2005-2022)

Statement		Equation	R2	F	Annual rate of change (%)
Lending in local	Total Lending	Ŷi= 9010.025-7179.746 Xi (6.378) **	0.745	40.79	16
currency	Agricultural Sector Loans	Ŷi=27.364+392 Xi (-0.102) **	0.001	0.01	108.5
Lending in foreign	Total Loans	Ŷi= 4007.850-2629.894Xi (5.200) **	0.659	27.037	13.64
currency	Agricultural Sector Loans	Ŷi=0	0	0	0

where: Ŷi refers to the estimated values of the phenomenon under study in year i,

The X refers to the order of the time element where  $i = 1, 2, 3, 4, \dots$  (18.

\* Significant at the level of 5%. \*\*: Significant at the level of 1%.

Source: Calculated from: Table 7.

## 2. Total lending from private sector banks in local and foreign currency in Egypt:

A. Total lending in local currency from private sector banks:

Table (9) shows the total lending (in local currency) from private sector banks during the period (2005-2021), where it was found that the value of total lending (in local currency) ranged between two limits, the lowest amounting to about EGP 152191.0 million in 2005, and the highest amounting to

about EGP 706861.0 million in 2020, with an annual average of about EGP 304195.76 million during the aforementioned period.

From the results of the analysis of the special time trend shown in Table (10), it was found that there was an annual increase (statistically significant) the value of total lending (in local currency) from private sector banks estimated at EGP 32160.51 million, equivalent to about 10.57% of the private average of total lending (in local currency) from private sector banks during the average period mentioned above. From the coefficient of determination (R2), it was found that about 79% of the changes in total lending (in local currency) from private sector banks are due to factors that affect the time element 21% are due to other factors not measured in the estimated model.

#### B. Lending to the agricultural sector in local currency from private sector banks

Table (9) shows the total agricultural sector loans (in local currency) from private sector banks during the period (2005-2021), where it was found that the value of total agricultural sector loans (in local currency) ranged between two limits, the lowest amounting to about 4461.0 million pounds in 2010, and the highest amounting to about 28589.0 million pounds in 2020, with an annual average of about 9429.02 million pounds during the aforementioned period.

From the results of the analysis of the general time trend shown in Table (10), the significance of the estimated model of the value of total agricultural sector loans (in local currency) from private sector banks during the period (2005-2022) was not statistically confirmed.

#### C. Total lending in foreign currency to private sector banks

Table (9) shows the total lending (in foreign currency) from private sector banks during the period (2005-2021), where it was found that the value of total lending (in foreign currency) from private sector banks ranged between two limits, the lowest of which amounted to about 53502.0 million pounds in 2005, and the highest reached about 279652.0 million pounds in 2017, with an annual average of about 141938.82 million pounds during the aforementioned period.

From the results of the analysis of the special time trend shown in Table (10), it was found that there was an annual increase (statistically significant) the value of total lending (in foreign currency) estimated at about EGP 12645.42 million, equivalent to about 8.91% of the special average of the total lending of the agricultural sector in foreign currency during the average of the aforementioned period. From the coefficient of determination (R2), it was found that about 79% of the changes in total lending (in foreign currency) from private sector banks are due to factors that affect the time element 21% are due to other factors not measured in the estimated model.

#### D. Lending the agricultural sector in foreign currency to private sector banks

Table (9) shows the total agricultural sector loans (in foreign currency) from private sector banks during the period (2005-202212), where it was found that the value of total agricultural sector loans (in foreign currency) ranged between two limits, the lowest amounting to about 619.0 million pounds in 2005, and the highest amounting to about 2777.00 million pounds in 2020, with an annual average of about 1817.29 million pounds during the aforementioned period.

From the results of the analysis of the special time trend shown in Table (10), it was found that there was an annual increase (statistically significant) the value of total agricultural sector loans (in foreign currency) from private sector banks, estimated at about EGP 120,240 million, equivalent to about 6.62% of the private average of total agricultural sector loans (in foreign currency) from private sector banks during the average period mentioned above. From the coefficient of determination (R2), it was found that about 71% of the changes in total lending to the agricultural sector (in foreign currency) are due to factors that affect the time element 29% are due to other factors not measured in the estimated model.

<b>Fable 9:</b> Total Lending and Lending to the Agricultural Sector from Private Sector B	anks in Local and
Foreign Currency in Egypt during the Period (2005-2021) in Million EGP)	

_	Loans	Foreign currency loans				
Years	Total Lending	Lending to the agricultural sector	%	Total Lending	Lending to the agricultural sector	%
2005	152191.00	5756.00	3.78	53502.00	619.00	1.16
2006	150485.00	4794.00	3.19	64180.00	829.00	1.29
2007	163292.00	6922.00	4.24	76020.00	929.00	1.22
2008	167258.00	5326.00	3.18	90829.00	843.00	0.93
2009	177107.00	4718.00	2.66	90778.00	2145.00	2.36
2010	185694.00	4461.00	2.40	101454.00	1534.00	1.51
2011	187810.00	6294.00	3.35	96945.00	2314.00	2.39
2012	207334.00	4573.00	2.21	97052.00	1398.00	1.44
2013	216663.00	4852.00	2.24	114536.00	1366.00	1.19
2014	227819.00	5118.00	2.25	121152.00	1666.00	1.38
2015	252405.00	5833.00	2.31	151029.00	2595.00	1.72
2016	302322.00	8384.00	2.77	157260.00	2025.00	1.29
2017	396626.00	8259.00	2.08	279602.00	2693.00	0.96
2018	462915.00	12855.00	2.78	266829.00	2354.00	0.88
2019	574077.00	19512.00	3.40	222062.00	2279.00	1.03
2020	706861.00	28589.00	4.04	212466.00	2777.00	1.31
2021	640469.00	24050.50	3.72	217264.00	2528.00	1.17
Average	304195.76	9429.21	2.98	141938.82	1817.29	1.37

Source: Central Bank of Egypt, Economic Magazine, miscellaneous issues.

Table 10: Equations of the general time trend of the values of total lending and lending to the agricultural sector from private sector banks in local and foreign currency in Egypt during the period (2005-2022)

Statement		Equation	R2	Value "F"	Annual rate of change (%)
Lending in	Total Lending	Ŷi= 14751.12+32160.51 Xi (7.437) **	0.79	55.31	10.57
local currency	Agricultural Sector Loans	Ŷi= 533.926-1107.12Xi (4.399) **	0.56	19.35	11.74
Lending in	Total Loans	Ŷi=28130.03+12645.42Xi (7.588) **	0.79	57.58	8.91
currency	Agricultural Sector Loans	Ŷi= 7351.13+120.24 Xi (6.33) **	0.71	36.41	6.62

where: Ŷi refers to the estimated values of the phenomenon under study in year i,

The X refers to the order of the time element where  $i = 1, 2, 3, 4, \dots$  (18).

\* Significant at the level of 5%. \*\*: Significant at the level of 1%.

Source: Calculated from: Table 9.

#### Sixth: Investment loans granted by the Agricultural Bank of Egypt

The Main Agricultural Bank of Egypt plays an important role in financing Egyptian agricultural development projects by providing investment loans to finance agricultural projects (for individuals, cooperatives, bodies, associations and local government units) in various fields such as livestock, poultry and apiary, expansion of agricultural mechanization, land reclamation, greenhouse operation and agricultural processing <sup>(1)</sup>.

## 1. The loans granted by the Agricultural Bank of Egypt are divided according to their main maturities into:

<sup>&</sup>lt;sup>(1)</sup> Hassan Abdel Hamid Mohsen (Ph.D.), "Financing Agricultural Development in the Arab Republic of Egypt", National Symposium on Financing Agricultural Development in the Arab Countries, Arab Organization for Agricultural Development, 1994.

#### A. Short Term Loans:

They do not exceed fourteen months and are directed to various purposes, whether in the field of livestock, poultry or other species. Medium-term loans: These are those with maturities of more than fourteen months and up to five years and are directed to loans for livestock, poultry wealth, agricultural mechanization and other projects. And long-term loans: which have a maturity of more than five years and are directed to land reclamation and the establishment of orchards.

The following is a brief overview of the current value of investment loans granted by the Agricultural Bank of Egypt to finance agricultural investments in Egypt as follows:

# 1. The current value of the total investment loans granted by the Agricultural Bank of Egypt according to their main terms in Egypt

#### A. Short-term loans

Table (11) shows the short-term loans during the period (2005-2021), where it was found that short-term loans fluctuated between increase and decrease while they were predominantly increasing. It ranged from two limits, the lowest amounting to about 4460.00 million pounds in 2010, with a contribution rate of about 74.02% of the total investment loans granted in the same year, and the highest amounting to about 8163.00. EGP million in 2016, with a contribution of about 71.49% of the total investment loans granted in the same year, with an annual average of about EGP 6111.68 million during the aforementioned period.

From the results of the analysis of the general time trend shown in Table (12), it was found that there was an annual increase (statistically significant) in the total medium-term loans estimated at about EGP 20,475 million, equivalent to about 0.34 % of the general average of total long-term loans during the average period mentioned above. From the coefficient of determination (R2), it was found that about 0.9% of the changes in medium-term loans are due to factors that affect the time element, and about 99.1% are due to other unmeasured factors. in the estimated form.

#### **B. Medium-term loans**

Table (11) shows the medium-term loans during the period (2005-2021), where it was found that the medium-term loans fluctuated between increase and decrease while they were predominantly increasing. It ranged between two limits, the lowest of which amounted to about EGP 1556.00 million in 2010, with a contribution rate of about 25.83% of the total investment loans granted in the same year, and the highest amounted to about 10200.00. EGP million in 2020, with a contribution of about 53.63% of the total investment loans granted in the same year, with an annual average of about EGP 4118.18 million during the aforementioned period.

From the results of the analysis of the general time trend shown in Table (12), it was found that there was an annual increase (statistically significant) in the total medium-term loans estimated at EGP 325,314 million, equivalent to about 7.9% of the general average of total short-term loans during the average period mentioned above. From the coefficient of determination (R2), it was found that about 46% of the changes in medium-term loans are due to factors that affect the time element, and about 54% are due to other factors not measured in the estimated model.

#### C. Long-term loans

Table (11) shows the long-term loans during the period (2005-2021), where it was found that long-term loans fluctuated between increase and decrease while they were predominantly increased. It ranged between two limits, the lowest of which amounted to about 7.00 million pounds in 2009, with a contribution rate of about 0.10% of the total investment loans granted in the same year, and the highest amounted to about 858.00. EGP million in 2020, with a contribution of about 4.9% of the total investment loans granted in the same year, with an annual average of about EGP 295.06 million during the aforementioned period.

From the results of the analysis of the general time trend shown in Table (12), it was found that the model was not significant.

#### **D.** Total Loans

Table (11) also showed that the total investment loans granted by the Agricultural Bank of Egypt according to their terms fluctuated between increase and decrease. It ranged between two limits, the

lowest of which amounted to about 6025.00 million pounds in 2010, and the highest of which amounted to about 16758.00 million pounds in 2020, with an annual average of about 10524.91 million pounds during the period under study.

From the results of the general time trend analysis shown in Table (12), it was found that there was an annual increase (statistically significant) in total loans estimated at EGP 198.91 million, equivalent to about 3.8% of the general average of total long-term loans during the average period mentioned above. From the coefficient of determination (R2), it was found that about 3.8% of the changes in long-term loans are due to factors that affect the time component, and about 96.2% are due to other factors not measured in the estimated model.

EG	(P)						
	Short-teri	m loans	Medium-terr	n loans	Long-term	n loans	Total loans
Year	Current	%	Current	%	Current	%	_
	value		value		value		
2005	6392.00	68.69	2905.00	31.22	8.00	0.09	9305.00
2006	6594.00	64.91	3557.00	35.01	8.00	0.08	10159.00
2007	6874.00	63.65	3917.00	36.27	9.00	0.08	10800.00
2008	7080.00	64.22	3918.00	35.54	26.00	0.24	11024.00
2009	4546.00	70.42	1903.00	29.48	7.00	0.10	6456.00
2010	4460.00	74.02	1556.00	25.83	9.00	0.15	6025.00
2011	5382.00	62.80	3098.00	36.14	91.00	1.06	8571.00
2012	5416.00	66.43	2613.00	32.04	125.00	1.53	8154.00
2013	4996.00	69.03	2048.00	28.30	193.00	2.67	7237.00
2014	5448.00	60.63	2998.00	33.36	540.00	6.01	8986.00
2015	7443.00	66.90	3166.00	28.46	516.00	4.64	11125.00
2016	8163.00	71.49	2786.00	24.40	470.00	4.11	11419.00
2017	5642.00	58.66	3530.00	36.70	446.00	4.64	9618.00
2018	7683.00	54.27	6232.00	44.02	243.00	1.72	14158.00
2019	00.00	44.486153	6988.00	50.52	692.00	5.00	13833.00
2020	5700.00	32.20	10200.00	57.63	858.00	4.85	16758.00
2021	5926.50	38.34	8594.00	54.08	775.00	4.93	15295.50
Average	6111.68	60.66	4118.18	36.41	295.06	2.46	10524.91

**Table 11:** Current Value of Investment Loans Granted by the Agricultural Bank of Egypt at the National<br/>Level According to their Different Periods During the Period (2005-2021)(MillionECDECD

Source: Central Bank of Egypt, Economic Magazine, miscellaneous issues.

Table 12:	Equations of	the general	time trend	of the	current	values	of investi	ment loans	granted	by
	Agricultural E	Bank of Egy	pt in Egypt	during	the peri	od (200	)5-2021)			

Statement	Equation	R2	F	Annual rate of change (%)
Short-term loans	Ŷi= 5927.397+20.475Xi (0.373) **	0.009	0.139	0.34
Medium-term loans	Ŷi= 1190.363+325.314 Xi (3.537) **	0.455	12.513	7.9
Long-term loans	Ŷi= 183.022-53.120 Xi (7.88) **	0.803	60.966	18.00
Total Loans	Ŷi= 6934728+398.91Xi (3.401) **	0.435	11.57	3.8

where: Ŷi refers to the estimated values of the phenomenon under study in year i,

The X refers to the order of the time element where  $i = 1, 2, 3, 4, \dots 18$ .

\* Significant at the level of 5%. \*\*: Significant at the level of 1%.

Source: Calculated from: Table 11.

# 2- The current value of the total short-term investment loans granted by the Agricultural Bank of Egypt for animal production projects in Egypt:

#### A. Loans for livestock:

The data in Table (13) shows the current value of the total short-term investment loans provided by the Agricultural Bank of Egypt according to the type of productive activity during the period under study, where it was found that the loans directed to livestock activity were fluctuating between increase and decrease. It ranged from two limits, the lowest of which amounted to about EGP 2864.00 million in 2013, and the highest of about EGP 5452.00 million in 2018, with an annual average of about EGP 3966.15 million during the period under study.

From the results of the analysis of the general time trend shown in Table (14), it was found that the estimated model was not significant.

	Livest	tock	Poultry w	ealth	Other pr	Other projects		
Year	Current	%	Current	%	Current	%	Investment	
	Value		Value		Value		Loans	
2005	3702.00	57.92	94.00	1.47	2596.00	40.61	6392.00	
2006	4064.00	61.64	55.00	0.84	2474.00	37.52	6594.00	
2007	4574.00	66.55	18.00	0.26	2282.00	33.19	6874.00	
2008	5084.00	71.81	21.00	0.30	1975.00	27.89	7080.00	
2009	3427.00	75.40	17.00	0.36	1102.00	24.23	4546.00	
2010	3793.00	85.05	12.00	0.26	655.00	14.69	4460.00	
2011	4576.00	85.02	72.00	1.34	734.00	13.64	5382.00	
2012	3375.00	62.32	7.00	0.12	2034.00	37.55	5416.00	
2013	2864.00	57.32	23.00	0.46	2109.00	42.22	4996.00	
2014	3107.00	57.03	1.00	0.03	2340.00	42.95	5448.00	
2015	4236.00	56.92	10.00	0.14	3196.00	42.94	7443.00	
2016	3622.00	44.37	6.00	0.07	4535.00	55.56	8163.00	
2017	4528.00	80.27	2.00	0.04	1111.00	19.70	5642.00	
2018	5452.00	70.96	1.00	0.01	2230.00	29.03	7683.00	
2019	4098.00	66.59	23.00	0.37	2033.00	33.04	6153.00	
2020	3249.00	57.00	93.00	1.63	2358.00	41.37	5700.00	
2021	3673.50	61.81	58.00	1.00	2195.50	37.21	5926.50	
averaσ	3966.15	65.76	30.18	0.51	2115.26	33.73	6111.68	

Table 13: Current value of investment loans (short-term) granted by the agricultural b	ank of Egypt for
livestock projects during the period (2005-2021) (Million EGP)	

**Source:** Egyptian Central Agency for Public Mobilization and Statistics, Annual Bulletin of Cooperative Activity in the Agricultural Sector, miscellaneous issues.

Table 14: General time trend equations of current values of total investment loans short-term	granted
by the agricultural bank of Egypt during the period (2005-2021)	

Statement	Equation	R2	Value "F"	Annual rate of change (%)
Livestock	Ŷi= 4054.52-9.819 Xi (0.272) **	0.005	0.074	0.25
Poultry wealth	Ŷi= 36.794-0.735Xi (-0.458) **	0.014	0.21	2.4
Other projects	Ŷi= 1835.787+31.065Xi (0.557) **	0.029	0.445	1.5
Total	Ŷi= 5927.397+20.475 Xi (0.373) **	0.009	0.14	0.03

where: Ŷi refers to the estimated values of the phenomenon under study in year i,

The X refers to the order of the time element where  $i = 1, 2, 3, 4, \dots$  (18.

\* Significant at the level of 5%. \*\*: Significant at the level of 1%.

Source: Calculated from: Table 13.

#### **B.** Loans for poultry wealth

The data in Table (13) shows the current value of the total short-term investment loans provided by the Agricultural Bank of Egypt according to the type of productive activity during the period under study, where it was found that the loans directed to the poultry activity were fluctuating between increase and decrease. It ranged from two lows of about EGP 1.00 million in 2008 (2008, 2014) to a high of EGP 94.00 million in 2005, with an annual average of about EGP 30.18 million during the period under study.

From the results of the analysis of the general time trend shown in Table (14), it was found that the estimated model was not significant.

#### C. Loans directed to other projects

The data in Table 13 also showed that the other different types of short-term loans were also fluctuating between increase and decrease. It ranged from two limits, the lowest of which amounted to about EGP 655.00 million in 2010, and the highest of about EGP 4535.00 million in 2016, with an annual average of about EGP 2115.26 million during the period under study.

From the results of the analysis of the general time trend shown in Table (14), it was found that there was an annual increase (statistically significant) in loans directed to the rest of the projects, estimated at EGP 31,065 million, equivalent to about 1.5% of the general average of total long-term loans during the average period mentioned above. From the coefficient of determination (R2), it was found that about 2.9% of the changes in long-term loans are due to factors that affect the time element, and about 97.1% are due to other factors not measured in the estimated model.

#### **D.** Total Loans

The data of Table 13 indicated that total short-term current investment loans fluctuated between increase and decrease. It ranged from two limits, the lowest of which amounted to about 4460.0 million pounds in 2010 and the highest of about 8136.00 million pounds in 2016, with an annual average of about 6111.68 million pounds during the period under study.

From the results of the analysis of the general time trend shown in Table (14), it was found that there was an annual increase (statistically significant) in the total loans estimated at about EGP 20,475 million, equivalent to about 0.03% of the general average of total long-term loans during the average period mentioned above. From the coefficient of determination (R2), it was found that about 0.9% of the changes in long-term loans are due to factors that affect the time element, and about 99.1% are due to other factors not measured in the estimated model.

## **3.** Current value of total medium-term investment loans granted by the Agricultural Bank of Egypt in Egypt

#### A. Loans directed to livestock

The data in Table (15) shows the current value of the total medium-term investment loans provided by the Agricultural Bank of Egypt according to the type of productive activity during the period under study, where it was found that the loans directed to livestock activity fluctuated between increase and decrease. It ranged from two lows of about EGP 625.00 million in 2013, and the highest of about EGP 5300.00 million in 2020, with an annual average of about EGP 1712.41 million during the period under study.

From the results of the analysis of the general time trend shown in Table (16), it was found that there was an annual increase (statistically significant) in the total medium-term loans for livestock, estimated at about EGP 165.77 million, equivalent to about 9.7% of the general average of livestock loans during the average period mentioned above. From the coefficient of determination (R2), it was found that about 44% of the changes in livestock loans are due to factors that affect the time element, and about 56% are due to other factors not measured in the estimated model.

#### B. Loans directed to poultry wealth

The data in Table (15) shows the current value of the total medium-term investment loans provided by the Agricultural Bank of Egypt according to the type of productive activity during the period under study, where it was found that the loans directed to the poultry activity were fluctuating between increase and decrease. It ranged from two lows of about EGP 2.00 million in (2013, 2012), and the highest of about EGP 16.00 million in (2010, 2018, 2020), with an annual average of about EGP 17.97 million during the period under study.

From the results of the analysis of the general time trend shown in Table (16) with regard to the value of total medium-term current investment loans directed to poultry wealth, it was found that the statistical significance of the estimated model was not proven.

 Table 15: Current Value of Total Medium-Term Investment Loans Granted by the Agricultural Bank of Egypt in Egypt according to its main purposes during the period (2005-2021) (in million pounds)

Year	Livestock		Poultry wealth		Agricultural Mechanization		Other projects		Total Investment
	Value	%	Value	%	Value	%	Value	%	Loans
2005	1255.00	43.20	92.00	3.16	167.00	5.74	1392.00	47.90	2905.00
2006	1299.00	36.52	63.00	1.77	243.00	6.82	1953.00	54.89	3557.00
2007	1415.00	36.13	19.00	0.47	285.00	7.26	2199.00	56.13	3917.00
2008	1394.00	35.58	20.00	0.50	269.00	6.87	2235.00	57.05	3918.00
2009	843.00	44.32	6.00	0.33	109.00	5.72	945.00	49.63	1903.00
2010	692.00	44.47	3.00	0.18	72.00	4.64	789.00	50.70	1556.00
2011	1179.00	38.07	4.00	0.13	131.00	4.22	1784.00	57.58	3098.00
2012	1082.00	41.43	2.00	0.09	138.00	5.27	1390.00	53.21	2613.00
2013	625.00	30.51	2.00	0.12	88.00	4.30	1333.00	65.07	2048.00
2014	882.00	29.42	3.00	0.11	70.00	2.34	2043.00	68.13	2998.00
2015	1188.00	37.51	7.00	0.23	128.00	4.06	1843.00	58.21	3166.00
2016	1116.00	40.04	16.00	0.58	100.00	3.59	1554.00	55.79	2786.00
2017	1516.00	42.94	9.00	0.25	224.00	6.34	1782.00	50.47	3530.00
2018	2613.00	41.93	16.00	0.26	215.00	3.46	3387.00	54.35	6232.00
2019	2708.00	38.76	13.00	0.19	176.00	2.53	4090.00	58.53	6988.00
2020	5300.00	51.96	16.00	0.16	317.00	3.11	4567.00	44.77	10200.00
2021	4004.00	45.36	14.50	0.18	246.50	2.82	4328.50	51.65	8594.00
Average	1712.41	39.89	17.97	0.51	175.21	4.65	2212.62	54.94	4118.18

Source: Egyptian Central Agency for Public Mobilization and Statistics, Annual Bulletin of Cooperative Activity in the Agricultural Sector, miscellaneous issues.

**Table 16:** Equations of the general time trend of the current values of the total medium-term investmentloans granted by the Agricultural Bank of Egypt in Egypt according to their main purposesduring the period (2005-2021)

Statement	Equation	R2	Value "F"	Annual rate of change (%)
Livestock	Ŷi= 220.485+165.770 Xi (3.429)	0.44	11.758	9.7
Poultry wealth	Ŷi= 38.860-2.321Xi (-2.192)	0.24	4.805	12.9
Agricultural Mechanization	Ŷi= 159.765+1.716 Xi (0.428)	0.01	0.183	0.97
Other projects	Ŷi= 771.956+160.074 Xi (3.731) *	0.48	13.997	13.2
Total	Ŷi= 1190.363+326.31 Xi (6 233) **	0.46	12.513	7.9

where: Ŷi refers to the estimated values of the phenomenon under study in year i,

The X refers to the order of the time element where  $i = 1, 2, 3, 4, \dots$  (18).

\* Significant at the level of 5%. \*\*: Significant at the level of 1%.

Source: Calculated from: Table 15.

#### C. Loans for agricultural mechanization

From the data of Table (15), it was found that agricultural mechanization loans fluctuated between increase and decrease. It ranged from two lows of about EGP 70.00 million in 2014, and the highest of about EGP 317.00 million in 2020, with an annual average of about EGP 175.21 million during the period under study.

From the results of the analysis of the general time trend shown in Table (16), it was found that there was an annual statistically significant increase estimated at EGP 1,716 million, equivalent to about

0.97% of the general average agricultural mechanization loans during the average period mentioned above. From the coefficient of determination (R2), it was found that about 1.2% of changes in poultry loans are due to factors that affect the element of time, and about 98.8% are due to other factors not measured in the estimated model.

#### D. Loans directed to other projects

The data in Table 15 also showed that the other different types of medium-term loans were also fluctuating between increase and decrease. It ranged between two limits, the lowest of which amounted to about EGP 789.00 million in 2010, and the highest of about EGP 4567.00 million in 2020, with an annual average of about EGP 2212.62 million during the period under study.

From the results of the analysis of the general time trend shown in Table (16), it was found that there was an annual increase (statistically significant) in the total medium-term loans directed to agricultural mechanization estimated at about EGP 160,074 million, equivalent to about 13.2% of the general average of poultry wealth loans during the average period mentioned above. From the coefficient of determination (R2), it was found that about 48% of the changes in poultry wealth loans are due to factors that affect the element of time, and about 52% are due to other factors not measured in the estimated model.

#### C. Total loans

Table 15 data indicated that total medium-term current investment loans for livestock production fluctuated between increase and decrease. It ranged from two limits, the lowest of which amounted to about EGP 1556.00 million in 2010, and the highest of about EGP 10200.00 million in 2020, with an annual average of about EGP 4118.18 million during the period under study.

From the results of the analysis of the general time trend shown in Table (16), it was found that there was an annual statistically significant increase estimated at EGP 326,314 million, equivalent to about 7.9% of the general average of poultry wealth loans during the average period mentioned above. From the coefficient of determination (R2), it was found that about 46% of the changes in poultry loans are due to factors that affect the element of time, and about 54% are due to other factors not measured in the estimated model.

#### Recommendation

The results indicated that the agricultural sector is lower in terms of development rate and level compared to other non-agricultural sectors and total sectors, and it was also shown that the efficiency of the agricultural sector is higher than the non-agricultural sectors.

- The total contribution of banks to the development of the agricultural sector is a limited percentage that must be increased, and this percentage is considered limited and does not contribute significantly to the development of this sector.
- Local investments directed to the agricultural sector in Egypt must be increased, as it is clear that the agricultural sector needs to receive more local investments, as well as increasing local loans provided to the agricultural sector in line with the contribution of agriculture to the national income, given its impact on increasing agricultural exports, agricultural income, the size of agricultural labor and the average annual wage of an agricultural worker.
- Limiting the use of agricultural loans and agricultural savings to finance agricultural investments only and not to be used for other purposes.
- The need to increase investments in the agricultural sector by following an expansionary monetary policy to encourage investment in agricultural projects by reducing the interest rate, and using an expansionary fiscal policy by reducing taxes as a means to stimulate investments and stimulate the national economy during periods of depression
- The necessity of enacting appropriate and stimulating tax legislation to stimulate investment and create an investment climate to support it.
- The need to develop control over agricultural advances and loans and increase the financing capacity of the bank through government intervention so that it can play an effective role in liberalizing the agricultural economy and advancing development.
- Problems and obstacles facing agricultural economic development She explained that the most important of these obstacles are the inability of agricultural production to meet the requirements of

the population, the fragmentation of agricultural tenure, the low productive merit of some agricultural crops, the migration of competencies from agricultural labor, the low relative importance of agricultural labor to the total Egyptian employment, and the small size of investment allocations for the agricultural sector.

- The need to preserve the agricultural area and protect it from population and urban encroachments and activate laws

#### References

- Mourad, F.G., B.N. Samir, and F.A. Fathia, 2014. "An Economic Study of Agricultural Investments in Egypt", Egyptian Association of Agricultural Economists, Egyptian Journal of Agricultural Economics, 24(1)
- Mohamed, A.S., Hedy Ali Hassan, and D.H. Bassem, 2016. "An Analytical Study of Agricultural Investment in Egypt", Egyptian Journal of Agricultural Economics, 26(4).

Mohamed, I., 2017. "Determinants of FDI in the Arab Countries", International Monetary Fund.

- Mahmoud, F.Gh., 2022. "The Impact of Foreign Direct Investment on Egyptian GDP", Scientific Journal of Economics and Trade.
- Nourhan Yehia Ali, 2019. "The Status of the Agricultural Sector in the Egyptian Economic Structure and its Reflection on Food Security", PhD Thesis, Department of Agricultural Economics, Faculty of Agriculture, Assiut University.

#### Bulletins

Bank of Development and Agricultural Credit, records of the Department of Statistics and Credit, unpublished data.

Central Agency for Public Mobilization and Statistics "Statistical Yearbook" Miscellaneous issues.

- Central Agency for Public Mobilization and Statistics, Bulletin of Income Estimates from the Agricultural Sector, Miscellaneous Issues.
- Central Agency for Public Mobilization and Statistics, Monthly and Annual Bulletin of Foreign Trade, miscellaneous issues.

General Authority for Investment and Free Zones, Information Systems Center, unpublished data.

Ministry of Investment, performance report of the Ministry of Investment and its affiliates, miscellaneous numbers.

Ministry of Planning "Economic and Social Development Plan" Miscellaneous numbers.

#### Web Sites:

Cabinet, Information and Decision Support Center www.Idsc.gov.eg

General Authority for Investment and Free Zones www.gafi.gov.eg website

Website of the Information and Decision Support Center at the www.Idsc.gov.eg Council of Ministers.

Ministry of Investment Website www.investment.gov.eg.

Ministry of Planning Website www.mop.gov.eg