TOWARDS ECONOMIC EFFICIENCY OF EGYPTIAN AGRICULTURAL CREDIT MARKET: GETTING THE POLICY RIGHT

S. A. M. Salem

Agricultural economics Research Institute, Agricultural Research Center

ABSTRACT: *Market development is one of the important ways to developing the agricultural development in Egypt. The agricultural credit market is one of the most important markets in the agriculture sector. The current research focused on the features of Egyptian agricultural credit market components and the interest rate structure in the formal, semi-formal and informal markets. The study also dealt with lending and deposits interest rates in both PBDAC and CB and their margins during the period 1990-2008; the results showed that the PBDAC margin is higher than that of the CB. In the case of informal credit, the study estimated the interest rate in the agricultural activity by 15.61% at the sample level; it showed also that there is a variation between the two locations of the sample study; 14.72% in Berket El-Sab versus 16.55% in Quesna districts based on the agricultural activities and both the demand for and supply of informal agricultural credit in the two areas. However, the informal interest rate of the livestock activity is the highest among agricultural activities; which it has recorded 23.98% versus 18.44%, 13.42% and 10% for vegetables and fruits, Inputs and field crops respectively. The impact of the interest rate assessment in both formal and informal illustrated the rigidity of the agricultural credit market at both micro and macro levels.*

Key words: Agricultural credit – Interest rates – inflation rate – deposits - policy

INTRODUCTION

Market development is one of the important themes to advance agricultural development in Egypt. As the agricultural credit market is one of the most important markets in the agriculture sector, many studies have addressed the credit markets in both developing and developed countries.

Adams (1984) addressed a study about the policy of cheap credit and pointed out that this policy is responsible for the weakness of financial markets in the country as a result of low incomes that they discourage savings in the category of savers and distorting the optimal allocation of the use of loans. He also pointed out the need for the liberalization of interest rates to give positive real interest rates on loans and deposits in rural areas.

In another study conducted by Adams (1984) on the importance of interest rate policies, the study ignored the politicians and writers of the importance

of development of interest rates and its role in influencing the capital markets through the impact on the behaviour of both lenders and savers and borrowers. However, in developed countries, Economists consider that interest rate is the second important price after the price of foreign exchange.

Bouman (1984) conducted a study about informal credit and savings. The study pointed out that informal money brokers financial services are usually expensive, but the farms are likely to resort to informal intermediaries if it was in a choice between them and the official mediator, despite those high cost.

Meyer & Alicbusan (1984) showed that financial markets in Thailand run by large enterprises. The cycle of lending and repayment are very simple, where the farmer receives a loan before the start of production and then pay after the harvest. In the country in case of non-farm loans (including consumer loans), procedures are complex and interest rates are high for the borrowers, but it is appropriate for the lender. However, there are multi-purpose financial institutions which provide credit services to non-farm business, consumption and investment. The farmer receives a loan and pay during different periods of the year. However, rural households are characterized by a high variation of income levels. Therefore, financial institutions must take into account these differences and provide credit to farmers at reasonable interest rates if they are willing to increase its effectiveness as service provider to farm activities.

J. Yaron and M. Benjamin (1997), in their study about developping rural financial market, illustrated that in many developing countries, financial markets—especially in rural areas— cannot operate efficiently because of an unstable macroeconomic environment, biased sectoral policies, excessive government intervention, and legal and regulatory barriers.

1- Problem of Study:

Since the early of 1990's, the formal agricultural credit witnessed many government interventions in interest rate prices, specifically in agricultural loans. The main purpose of this government intervention is to increase the accessibility of small farmers through decreasing the interest rate in the main financial institution; Principle Bank for Development and Agricultural Credit (PBDAC). Since the early of 1990's till 2002, the formal agricultural interest rate prices witnessed continuous decreased as a result of continuous decreased in inflation rate. After 2003 till now, the inflation rate slowly increased to reach 5.7% in 2005 and suddenly increase after 2005 to reach 20% in 2008 which resulted in negative interest rate.

The problem of study stemmed from that the government intervention in the nominal interest rate mechanism could lead to macroeconomic instability. Of course, macroeconomic instability affects rural financial institutions directly through the real interest rate and indirectly through

effects on clients. However, the government intervention could lead to the weakness of the accessibility of farmers to credit and negatively affects the efficiency of the agricultural credit market.

2-Study Objectives:

The current study's objectives can be summarized as follows:

- Specify the agricultural credit market in the Egyptian agriculture.
- Specify the interest rate structure in the formal agricultural credit market.
- Estimate the informal interest rate of agricultural sector and main agricultural activities.
- Assess the impact of the interest rate on the agricultural loans and output at micro and macro levels.

3- Data Sources and Methodology:

The study depended on field and secondary data. The field data were collected from a random sample in two villages of Menoufia Governorate, Egypt. The secondery data were collected from PBDAC, Central Bank of Egypt (CBE), and Ministry of Agriculture and Land Reclamation (MALR).The current study utilized statistical analysis tools such as geometric mean and regression analysis.

4- The Agricultural Credit Markets in Egypt:

The Agricultural credit market is composed of three major market players; namely borrowers money users or units suffering from financial deficit (demand-side) , money suppliers (supply side) and financial intermediaries whose responsibility is to transform savings into loans on terms acceptable by the borrowing community. The financial intermediaries assume this function through changing the characteristics of funds provided by money suppliers, in terms of volume risk, time and place, to be accessible to the prospective borrowers in their new form. They also move money from one market or location to another, according to need. The structure of the agricultural credit market in Egypt can be specified in the Table (1) below.

Following is an overview of the main features of the agricultural credit market components:

5-1 Formal Credit Market:

Formal credit market implies the regulated market where the credit institutions are liable to the supervision of the Central Bank of Egypt (CBE) and as such operate within the state's overall economic policies. These include PBDAC and its governorate level branches, Commercial Banks, Investment Banks and Public sector banks. Agricultural credit is relatively

small. It only accounted for a maximum of 9% of the total bank credit. It further recently declined to 7% in, which is for less than agricultural contribution to the GDP or to its capacity to create new jobs and absorb new entrants into the workforce. However, PBDAC accounted for about 80% of the total credit made available to agriculture in. The other financial institutions (commercial, investment and state – owned banks) accounted for the rest (20%).

Table (1): Agricultural Credit Market in Egypt.

Informal Credit	Semi Formal	Formal
1- Money Lender	1 - Local Development Fund (LDF)	1- Principle Bank for Development and Agricultural Credit, (PBDAC).
2- Merchants & Middlemen	2- Nasser Social Bank (NSB)	2- Commercial Banks.
3- Agricultural Companies.	3- Social Fund for Development, (SFD)	3- Investment Banks.
4- Relative & Friends.	4- Productive Families Projects.	
5- Saving groups.	5- Insurance Fund.	
	6- NGO's.	

5-2 Semi-Formal Credit Market

It implies all the other entities permitted by the state, by way of the special law that defines its aims and objectives and methodology of perfomance. Those intities are often financially and administratively autonomous from the state's budget and administrative system. They are managed by Boards of Directors and are granted state support and special concessions to help them realize their service mission.

Local units are abounding in mother villages and hamlets. LDF loans are made available to the rural people through those units. At each governorate their chapter of the SFD is an organ of the Cabinet and reports directly to the Prime Minister. NSB branches are existent nation wide and provide loans to rural and urban citizens alike.

There are more than 5000 agricultural cooperatives and 13000 Non Governmental Organizations (NGO's) all over Egypt. Although NGO's are too many, only very few of them are involved in the provisining of financial services in rural Egypt. These include the productive families' project, some businessmen associations and some philanthropic societies.

5-3 Informal Credit Market:

This market is not liable to CBE's supervisory function, nor have they been created by special laws defining its aims and objectives. They are mainly characterized by:

- Absence of regulation of the lending – borrowing operations.
- Lenders know the nature and personal trails of their clintele, thus reducing the cost of inquiry about custmers.
- High lending insecurity.
- High flexibility in collection and repayment.
- Higher interest rates, compared to those at the formal credit market (although this cannot be generalized to all the informal credit markets).

It is quite noticeable that little attention has, so far, been given to the quasi-formal and informal credit markets, despite their major role in developing the Egyptian agricultural economy.

6- Interest rate structure:

6-1 Interest rate structure in the formal agricultural credit market:

Many lending institutions use their average cost of funds or another internal rate as the basis to price loans. Other common indices include 1-year Treasury securities rates, 90-day Treasury bills, prime charged at the London Inter Bank Offer Rate (LIBOR). Differences between the indices can be substaintial.

The interest rate paid by the borrower is the price of credit, as determined in credit market by the collective actions of suppliers and demanders of credit. Credit markets determine interest rates and risk premiums on debt that equate the overall supply and demand for credit. The market interest rate may be broken down into a real return (the debt instrument's return in terms of stable purchasing power) and inflationary expectations return (a return to compensate the lender for changes in an Egyptian Pound's purchasing power overtime). The real rate of interest is the return to the lender for forgoing the purchase of goods and services in the current period for the promise of higher consumption of goods and services in future periods.

Table (2) presented nominal and real interest rates for both deposits and on lending interest rates in the Principle Bank for Development and Agricultural Credit (PBDAC) and Commercial Banks (CB). Although inflation rate decreased from 19.7 % in 1990 to 9.9 % in 1993, nominal on lending interest rate increased from 16.8 % , 18 % in 1990 to 18.1 % ,18.2 % in 1993 for both PBDAC and CB respectively in order to exist a positive real interest rates.

After 1993, inflation rate has decreased significantly and reached to 2.8 % in the year 2000 as a result of applying Economic Reform policy and Structural Adjustment Programme (ERSAP). This decrease in the inflation rate, discount rate and other macro economic factors consequantly decreased on-lending and deposit interest rates in PBDAC and CB.

On the other hand, nominal and real interest rate on deposits in CB is also higher than PBDAC. These higher attracted savers to deposit their saving in commercial banks which have a higher return. So, PBDAC must increase interest rate deposit in order to preserve his clients and increasing deposits mobilization which is a low cost as a source of finance to his assets. However, Figures (1) and (2) depicted the development of both nominal deposit and on lending interest rates of the commercial banks and the PBDAC.

Table (2): Nominal and real interest rate in PBDAC and CB:

Year	Inflation Rate	PBDAC				CB			
		Weighted On-lending		Deposits		On Lending		Deposits	
		Nominal	Real	Nominal	Real	Nominal	Real	Nominal	Real
1990	19.7	16.8	-2.9	9.4	-10.3	18	-1.7	12	-7.7
1991	15.9	16	0.1	11.9	-4	20	4.1	15.52	-0.38
1992	14	17.5	3.5	11.7	-2.3	21	7	16.7	2.7
1993	9.9	18.1	8.2	12.2	2.3	18.2	8.3	13.49	3.59
1994	8.1	15.3	7.2	10.2	2.1	16.6	8.5	10.81	2.71
1995	9.4	13.1	3.7	9.9	0.5	14.63	5.23	10	0.6
1996	7.3	11.4	4.1	8.2	0.9	13.75	6.45	10.16	2.86
1997	6.2	11.6	5.4	7.7	1.5	13.2	7	9.85	3.65
1998	3.8	10.1	6.3	7.3	3.5	13.2	9.4	9	5.2
1999	3.8	10.7	6.9	7.6	3.8	12.84	9.04	9.22	5.42
2000	2.8	11.3	8.5	8	5.2	13.13	10.33	9.45	6.65
2001	2.2	13	10.8	8	5.8	14	11.8	11	8.8
2002	2.7	13	10.3	7.5	4.8	13.45	10.75	10	7.3
2003	4	12	8	7	3	13.27	9.27	10	6
2004	5.1	12	6.9	7.7	2.6	12.5	7.4	9.5	4.4
2005	5.7	12	6.3	6.9	1.2	10	4.3	8	2.3
2006	12.8	12	-0.8	6.7	-6.1	10.75	-2.05	8.75	-4.05
2007	12.3	12	-0.3	6.4	-5.9	12	-0.3	10	-2.3
2008	20	12	-8	6.6	-13.4	13.5	-6.5	11.5	-8.5

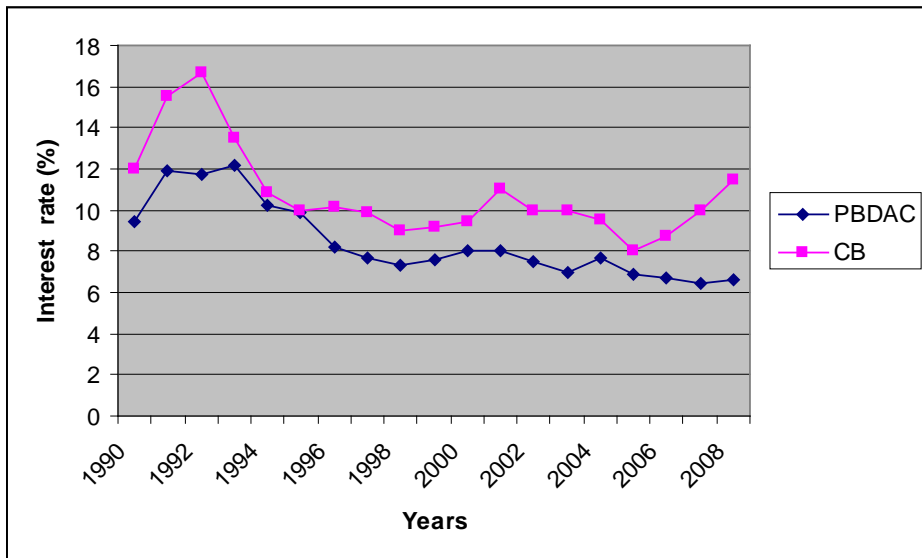*Source:* CBE & PBDAC, Circular Economic, Different Issues.

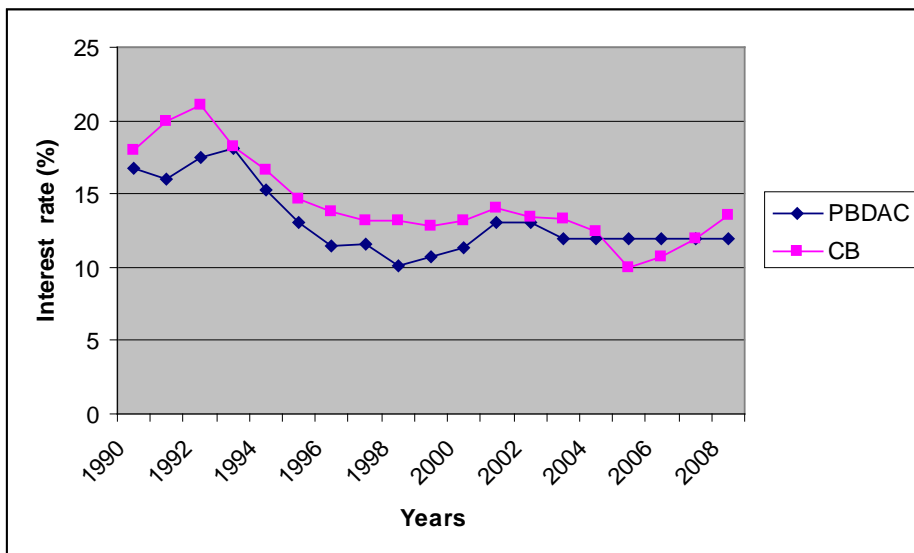**Figure (1): Nominal deposit interest rate in CB and PBDAC during 1990-2008.**

Figure (2): Nominal on lending interest rate in CB and PBDAC during 1990-2008.

6-2 Margin:

   The margin refers to the percentage points that the lender adds to the deposit interest rate to determine the rate charged on the borrower's interest rate (on lending interest rate). Table (3) and Figure (3) showed the margin in PBDAC and CB as a return to their financial intermediaries. It is obvious that PBDAC's margin is higher than that of the margin CB during the years (1990-2008). After the year 2000, PBDAC's margin has become higher than that of the CB due to the increase in the lending interest rate and the decrease in the deposit interest at the same time.

Table (3): Intermediations margin in PBDAC & CB during (1990-2008)

Year	PBDAC			CB		
	Deposit	On Lending	Margin	Deposit	On Lending	Margin
1990	9.4	16.8	7.4	12	18	6
1991	11.9	16	4.1	15.52	20	4.48
1992	11.7	17.5	5.8	16.7	21	4.3
1993	12.2	18.1	5.9	13.49	18.2	4.71
1994	10.2	15.3	5.1	10.81	16.6	5.79
1995	9.9	13.1	3.2	10	14.63	4.63
1996	8.2	11.4	3.2	10.16	13.75	3.59
1997	7.7	11.6	3.9	9.85	13.2	3.35
1998	7.3	10.1	2.8	9	13.2	4.2
1999	7.6	10.7	3.1	9.22	12.84	3.62
2000	8	11.3	3.3	9.45	13.13	3.68
2001	8	13	5	11	14	3
2002	7.5	13	5.5	10	13.45	3.45
2003	7	12	5	10	13.27	3.27
2004	7.7	12	4.3	9.5	12.5	3
2005	6.9	12	5.1	8	10	2
2006	6.7	12	5.3	8.75	10.75	2
2007	6.4	12	5.6	10	12	2
2008	6.6	12	5.4	11.5	13.5	2

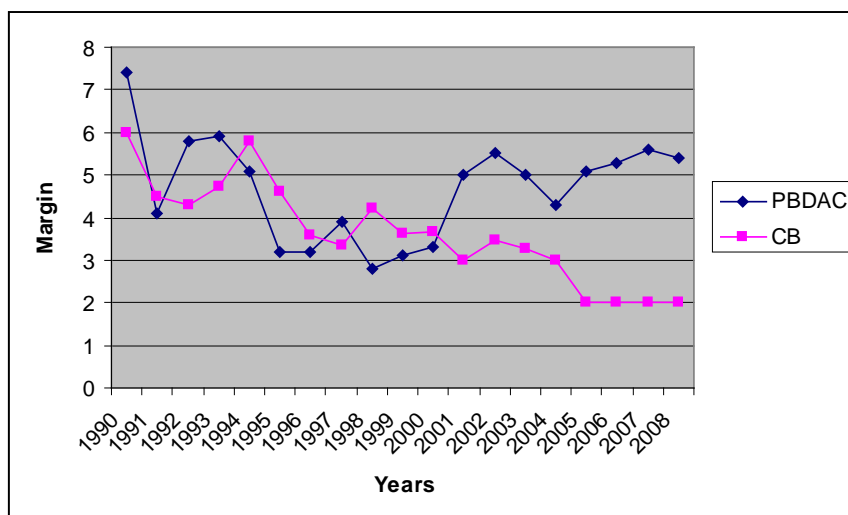   *Source:* **CBE & PBDAC, Circular Economic, Different Issues.**

Figure (3): nominal interest rate margin in CB and PBDAC during 1990-2008

6-3 Interest rate structure in the semi-formal agricultural credit market:

In the case of semi-formal credit, beneficiaries have borrowed their money through PBDAC and commercial banks based on specific agreements that concerned with borrowers and their activities. The banking system had specific credit lines to finance those groups. Therefore, the interest rates were lower by at least 3-5% compared with its similar in other credit lines.

6-4 Interest rate structure in the informal agricultural credit market:

To estimate the interest rate structure in the informal credit, the study has designed and prepared a questionnaire to support achieving the research objectives for those farmers who have dealt with the informal sources of the agricultural credit market. The collection of data and information was carried out through direct interviews with farmers. Specifically, the questionnaire includes the following data and information items:
1- The values of farmers' agricultural assets such as land, buildings, equipment and livestock.
2- Cropping pattern of sampled farmers and the values of their total production.
3- Input quantities and their values.
4- Marketing channels for both inputs and outputs.
5- Marketing finance, source of cash or in-kind loans in input and output traders, loans conditions in terms of input and output prices, collaterals and repayment conditions.

6-4-1 Sample Size and Selection:

The first target population consists of all the farmers that have dealt with an informal source of agricultural credit in Menoufia governorate. The sampled farmers were randomly selected from two villages in two different districts; they were planting field crops, vegetables and fruits. The research team interviewed 50 farmers in each village distributed as shown in Table (4). The sample has contained farmers from different categories to reflect the population characterstics in the sampled area.

Table (4): Distribution of the sampled farmers according to holding size and location in the sample governorates, 2008.

Holding Size Category	Berket El-Sab	Quesna
Less than 1 Feddan	10	10
1 - 3	20	15
3 - 5	15	15
Greater than 5 Feddans	5	10
Total	50	50

Source: Collected and calculated from the field survey, 2009.

6-4-2 Informal interest rate calculation in the study sample:

In the informal case, interest rate has three forms according to the dealing operations. The first one is buying inputs from traders in credit. In this case, the trader gives him an input by a higher price. So, informal interest rate is equal to the differential prices (in both cash and credit) as a percentage of the cash prices. The second is, if the farmer borrowed money from commodity traders, the traders always take the crops at lower prices compared to market prices. So, informal interest rate also equals the differential prices as a percentage of market prices. Finally, in case of buying animals, the capital owner buys an animal with half or fall value. The net profit distribution is different in the two cases. The informal interest rate here is equal to the net benefit to capital. This case is more obvious in Egypt. Table (5) and Figure (4) illustrate the calculated values of informal interest rate at the study sample. It is obviously shown that the informal credit in the agricultural activity equal to 15.61% at the sample level. It also shows that there is a variation between the two locations; 14.72% in Berket El-Sab versus 16.55% Quesna districts based on the agricultural activities and both the demand for and supply of informal agricultural credit in the two areas.

However, the informal interest rate of the livestock activity is the highest among other agricultural activities where it recorded 23.98% versus 18.44%, 13.42% and 10% for vegetables and fruits, Inputs and field crops respectively.

Table (5): Informal interest rate of agricultural activities at the study sample.

Activities	Berket El-Sab (%)	Quesna (%)	Goemetric mean of informal interst rate
Inputs (Fertilizer)	12	15	13.42
Feild Crops	10	10	10
Vegitables and fruits	17	20	18.44
Livestock	23	25	23.98
Goemetric mean of informal interst rate	14.72	16.55	15.61

Source: Collected and calculated from the field survey, 2009.
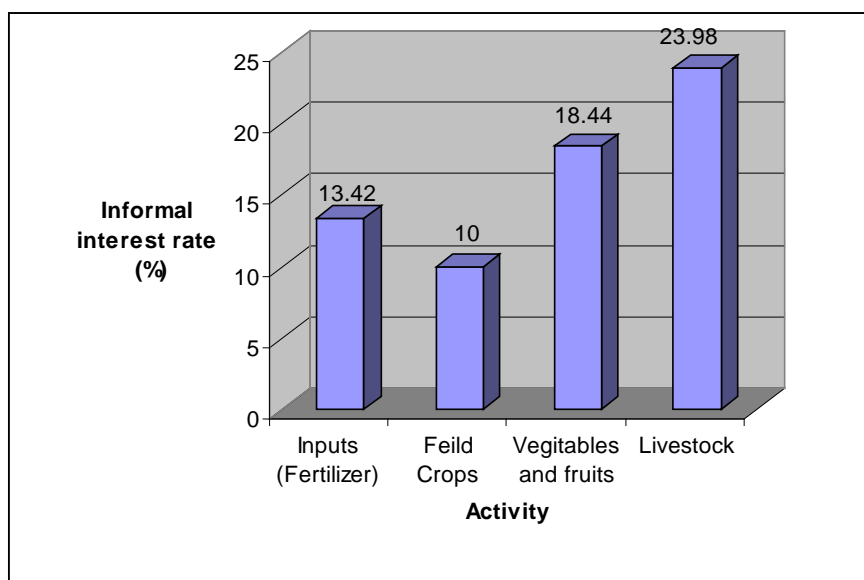

Figure (4): Informal interest rate of the main agricultural activities in the study sample.

7- Impacts of interest rate on agricultural output:
7-1 Impacts of informal interest rate on the agricultural output:

The data presented in Table (6) shows the descriptive statistics for variables: total agricultural output value, interest rate, hold size, and total agricultural loans in the sample of study.

Table (6): Descriptive statistics for some variables in the study sample

Item	Average	Standered devaition	Coefficient of variation (%)
Total value of agricultural output	11703	11334	97
Interest rate	15,07	6,35	42
Hold size by feddan	2,8	2,86	75
Total agricultural loans	3330	2240	67

Source: **Calculated from the study sample.**

By estimating the regression equation for total agricultural output as a depenedent variable and both interset rate and hold size as independent variables, the equation was:

Total agr. Output = - 485.5 + 102.2 interest + 3799.8 hold size
$$(1.44) \qquad (24.1) \qquad R \text{ square} = 0.90$$

The elasticity of total value of agricultural output with respect to interest rate is equal to:

$$E = (dY / dX) * (Avg. X / Avg.Y) = 102.2 * (15.07/11702.92) = 0.13$$

By estimating the regression equation for total agricultural loans as a depenedent variable and both interset rate and hold size as independent variables, the equation was:

Total agr. Loans = 1221.3 + 54.4 interest + 459.7 hold size
$$(1.34) \qquad (5.08) \qquad R \text{ square} = 0.65$$

The elasticity of total agricultural loans with respect to interest rate is equal to:

$$E = (dY / dX) * (Avg. X / Avg. Y) = 54.4 * (15.07/3330) = 0.25$$

From the above, the results (concerning the mean) of the variables show a 1 percent decrease in interest rate that will lead to 0.35 and 0.25 increases in both total agricultural loans and total value of agricultural output respictevely at micro level.

The positive sign of elasticity is mainly due to that the informal interest rate, in reality, is equal to a percent of the return on capital and it is expected to have a positive sign.

7-2 Impacts of formal interest rate changes on agricultural output:

In the case of macro level, the study estimated the regression equations for the agricultural output and total agricultural loans with respect to interest rate by using aggregate data from time series over the period (1981-2007).

By estimating the regression equation for total agricultural output as a dependent variable and agricultural investment, agricultural costs, total cropped areas, interest rate and total loans as independent variables, the equation was:

Total ag.output = - 34123 + 7.64 ag.investment + 0.992 ag,costs +4.4 cropped area

$$(2.37) \qquad (2.35) \qquad (1.56)$$
-920.12 interest rate+0.155total ag.loans
$$(-3.005) \qquad (0.11) \qquad \text{R squar = 0.93}$$

The elasticity of total value of agricultural output with respect to interest rate is equal to:

E = (d Y / d X) * (Avg. X / Avg.Y) = -920.12 * (13.09/23708) = -0.51

By estimating the regression equation for total agricultural loans as a depenedent variable and agricultural investment, agricultural costs, total cropped areas, interset rate and agricultural output as independent variables, the equation was:

Total ag.loans = -2375 + 0.548 ag.investment + 0.162 ag.costs+0.361 cropped areas

$$(0.768) \qquad (1.91) \qquad (0.541)$$
-147.503 interests +0.006 ag.output
$$(-2.312) \qquad (0.11) \qquad \text{R squar = 0.96}$$

The elasticity of total agricultural loans with respect to interest rate is equal to:

E = (d Y / d X) * (Avg. X / Avg.Y) = -147.503 * (13.09/2065) = -0.94

According to the aggregate data level, elasticity estimations were also inelastic for both agricultural output and agricultural loans but their values are higher compared to their similar in the micro level case. The negative signs for elasticises ensured that about the mean of the variables a 1 percent increase in interest rate will lead to a (0.51 & 0.94) decrease in both agricultural output and agricultural loans respectively. In general, the values

of elasticity estimation reflect the weaken response of agricultural output for interest rate changes and agricultural market rigidities.

REFERENCES

Alexander Sarris (1996). "*Rural Informal Credit Markets and The Effectiveness of Policy Reform*". Economic and Social Development paper, 134-FAO, Rome.

Central Bank of Egypt: "*Economic News*", Different Issues.

Dale W. Adams (1984). "Are the Arguments for Cheap Agr. Credit Sound?", Undermining Rural Development with Cheap Credit. Opcit, pp. 65-76.

Dale W. Adams *et al*. (1984). "Overview of the Importance of Interest Rate Policies". "Undermining Rural Development with Cheap Credit". Opcit. p. 62.

Damodorr; N. Gujarati (1988). "*Basic Econometric*" - Mc Graw-Hill, New York.

Frits J-A. Bouman (1984). "Informal Saving and Credit Arrangements in Developing Countries: Observation from Sri Lanks". Undermining Rural Development with Cheap Credit. Opcit, pp. 232-247.

J. Yaron and M. Benjamin (1997). *"Developing Rural Financial Market"* , Finance & Development, .

Jojo Sayad (1984). Rural Credit and Positive Real Rates of Interest: Brazil's Experience with Rapid Inflation. Undermining Rural Development with Cheap Credit. Opcit, pp. 146-160 .

James R. Tybout (1984). "*Interest Controls and Credit Allocation in Developing Countries*" - Journal of Money, Credit, and Banking - vol.(16) - November - Part(1).

Ministry of Agriculture and Land Reclamation (1995). "*Agricultural Development Strategy of Egypt in Nineteenth: Objectives-Constraints-Mechanism*".

Ministry of Local Development (1995). *"Publishing of Local Development Fund"* .

Richard, L. Meyer and Adelaida P. Alicbusan (1984). Farm-Household Heterogenity and Rural Financial Markets: Insights from Thailand. Undermining Rural Development with Cheap Credit. Opcit, pp. 22-34.

Roberts – Pindyck and Daniel L. Rubinfield (1981). "*Econometric Models and Economic Forecasts*", McGraw-Hill International Book Company.

Tomas, A. Timbery (1984). "*Informal Credit Market in India*" - Economic Development and Cultural Chang – vol. (33) – No. (1).

Mohammad R. Mustafa *et al,* (1995). "*Agricultural Finance*", FAO, ESCWA and NENARACA, .

تصحيح السياسات لتحقيق الكفاءة الاقتصادية
لأسواق الائتمان الزراعي في مصر

شعبان علي محمد سالم
معهد بحوث الاقتصاد الزراعي – مركز البحوث الزراعية

الملخص العربي

يعتبر سوق الائتمان الزراعي أحد المحاور الهامة لدفع عجلة التنمية الزراعية، وقد تناولت الورقة البحثية الحالية وصفا لسوق الائتمان الزراعي من حيث مكوناته الرئيسية والمتعلقة بكل من الأسواق الرسمية وشبه الرسمية وغير الرسمية. وركزت الدراسة على استعراض خصائص كل سوق، وهيكل أسعار الفائدة، وبمقارنة هامش الفائدة الذي يحققه كل من البنك الرئيسي للتنمية والائتمان الزراعي والبنوك التجارية، باعتبارهما المصدر الرئيسي للإئتمان الزراعي الرسمي، وأوضحت الدراسة ارتفاع هذا الهامش في بنك التنمية والائتمان الزراعي مقارنة بالبنوك التجارية.

وفي مجال سوق الائتمان غير الرسمي، أوضحت نتائج الدرلسة أن سعر الفائدة غير الرسمي بلغ نحو ٦١و١٥%على مستوى النشاط الزراعي، كما أوضحت النتائج وجود تفاوت في قيمة سعر الفائدة بين منطقتي عينة الدراسة وكذلك الأنشطة الفرعية والممثلة في المحاصيل الحقلية، والخضر والفاكهة، والإنتاج الحيواني، ومدخلات الإنتاج ممثلة في الأسمدة والمبيدات. وبدراسة العلاقة بين سعر لفائدة وكلا من قيمة الناتج الزراعي وحجم القروض على المستوى الجزئي (عينة الدراسة) والمستوى الكلي، أوضحت نتائج الدراسة انخفاض مرونة كل من قيمة الإنتاج الزراعي وحجم القروض بالنسبة لسعر الفائدة، وهو ما يعكس جمود أسواق الائتمان الزراعي للتغيرات في أسعار الفائدة، وهذا يؤكد أهمية عدم التدخل الحكومي في ميكانيكية تحديد سعر الفائدة، وتركها وفقا لقوى عرض وطلب السوق، لضمان قيامها بتحقيق الكفاءة الاقتصادية فيما يتعلق بتخصيص الموارد المالية في القطاع الزراعي.