Agribusiness Journal
Url: http://usnsj.com/index.php/AJ
Email: vhi.helvi@gmail.com

External Financing of Azerbaijani Agriculture

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ARTICLE INFO

ISSN: 2548-2211
Vol. 2, No. 2, Juli 2017
URL: http://usnsj.com/index.php/AJ/article/view/87

Abstract

The article investigates formation and normal activity of human capital which performs main resource of modern economic development and influence of external financing in the field of food security, which acts as the main part of economy of Azerbaijan that newly got independence. Roles of subsidy, microfinancing and loans were examined. It is confirmed Ntional Fund for Entrepreneurship Support (NFES) of the Republic that allocated the agricultural sector production and processing of loans, provision of bank loans to the agricultural sector. Under the influence of the economic performance of the agricultural sector development trends of the loan were based on the economic and mathematical models and charts were drawn. By the time forecasts were prepared it became clear that loans, especially state finance support depend on oil sphere.

Keywords: Subsidy, microfinancing, loans, JEL Classification: Q14, Q18, D29

A. Background

Agriculture the first and most prosperous activity of mankind (Nnamocha and Charles, 2015). All industrial developed countries have agricultural background 200 years ago most part of the population lived thanks to agriculture (Eswaran and Kotwal, 2005). Agriculture is experiencing profound, rapid changes in developing countries. Globalisation accelerated the transition from traditional, low-productivity agriculture to modern, highly productive agriculture moving more quickly in some countries than in others (Soundarrajan and Vivek, 2015).

In developed countries loans to agriculture are the object of attention and support from the state, as it provides a stimulating investment, innovation and dealing activity in the industry, which is the guarantor of food and economic security. System of supporting institutions, which was a high level of governmental involvement, especially in the initial stages of their formation was created in every country. Agricultural credit system which established and functioning with the participation of the state, is the most important mechanism of state regulation, the development and improvement of elements of which are the main tasks of the agrarian reform and policy of Azerbaijan. It is implemented in the framework of the State Program on social and economic development of regions (2004 - 2008th year, 2009 - 2013th year and 2014 - 2018th year).

The need for active state regulation of the financial and credit system is determined by the characteristics of the organizational and economic relations in agriculture: by the duration of the production cycle, seasonality, high manufacturing risk of natural-biological nature, the monopoly situation of suppliers and consumers of products industry that dictates unilaterally the conditions of economic interaction. Elements of market's self-regulation mechanism are not able to provide not only expanded, but also a simple reproduction of the industry. In addition, the need for state support of agriculture in Azerbaijan today is much higher than in developed countries. This is determined by climatic, material and technical, economic, social, and historical conditions. Production in agriculture is more risky, as well as one of the most capital-intensive and power-consuming. In this regard, the industry is less attractive for lenders and investors. As it is hindered the inflow of private capital from other industries and sectors of the economy. Lack of resources associated with the sale of agricultural products, involves a high dependence of the industry on the recurrent funding.

Reformation of the agricultural sector has revealed the problems associated with the formation of a specialized system of financial and credit support industry, ensuring access of agricultural goods producers to external sources of financing fixed capital formation and interaction of elements of this system. Current forms and methods of state regulation of agricultural credit system did not lead to a significant increase in the rate of agricultural production. This branch is still low-profitable. Agriculture need money to work normally like any other business. This is an important element for carrying out of the daily tasks, making the payment of salaries of employees and achieving equipment. Due to a change in the chargeable income of the farmers from the previous year, the profit is not enough simply to save. Farmers need money to access assets, stop cash flow, maintain a consistent work and for expansion. Simply to maintain its presence in some areas of agriculture loans in need, while others prosper and expand the use of agricultural loans (Culp, 2013).

Now, it was revealed that in both developed and developing countries the demand for agricultural credit in the special funds, sources cannot be paid. (Khan 1963). In its internal financial resources of economic entities in the agricultural sector and non-institutional forms of foreign financial resources (loans to non-financial institutions); financial institutions (banks), financial resources (loans); large companies and financial institutions "unnecessary" financial resources in the form of money; financial resources in the form of state support and assistance is available (Szeles, et al., 2014). Either small farmers, or large farmers and non-rural population of agriculture are faced with a shortage of capital. Requirement to credit increased after green revolution and technological changes. (Ahmad 2011). The expansion of the use of fertilizers, biocides, mechanisms and improvement of seeds in the past few decades in agrarian sector increased the demand for loans (Muhammad, et al., 2003).

Marketing of agricultural production timing, and the product is characterized by the fact that a few months of time. Access to working capital and, consequently, to the credit market, thus playing an important role in the decisions of the farmer's production; distribution of access to credit, in turn, tends to be an important determinant of income distribution (Eswaran and Kotwal, 1986). Agriculture is particularly sensitive to interest rates, because it is one of the most capital-intensive industries in the economy. Interest rates are key determinant of land values, the basis of wealth in agriculture on farmland prices depend on the relationship between expected return and interest rates. For agriculture financial constraints lead to a progressive reduction of farm support programs (Niles and Orden, 2003). The sentences above leads to the conclusion that the agricultural sector is quite specific to a market economy, self parking enforcement mechanisms to ensure the functioning of the credit system, manufacturer and rural population and, consequently, of innovative development of industry.

B. Method

We also fixed production factors of other loans that will adopt the methodology of the study. Indeed, Ammani has three simple regression models. The analytical framework of this study based on the following assumptions: (i) a loan is the only form of variable capital, provided for agricultural production, all the other factors of production remains constant; (ii) a loan for the acquisition and use relate to the agricultural production of the same year; (iii) there is no change in the price level; (Iv) no change in technology; (v) the output of each sub-sector of agriculture GDP is equal to the sub-sector (Ammani 2012).

For the purposes of this article at the time of the writing of the article economic and mathematical methods were used. In this case, the support of the agrarian sector during the first research fund for

more specificity in the processing of agricultural products and agricultural products separately for agriculture and processing of bank loans and preferential loans for agriculture, forestry and fishing GDP agricultural enterprises in the amount of profit and loss, balance income (damage), the cash proceeds from the sale, the income derived from the sale (damage), income derived from the sale of the crop as a whole (damage), income derived from the sale of livestock as a whole (damage), gross income, investigated the effects of agricultural products. In this case, the absolute and relative performance indicators adopted in 2005, indexes have turned 100. However, when performing a look at the statistics in the fund for the production of agricultural products and agricultural products in the amount of loans to separately identify significant changes and differences, all of them connected to a variable, as it was regarded as an influential factor in the next stage according to the quadratic, cubic, logarithmic, S equations built, estimates and projections of results have been taken.

Other scientists Heijman and Koch (2011) used from Kobb-Duglas funtion for sharing of financial resources and their forecasting during 2007-2013 years: (i) $-A_i = \alpha + \beta P_i + \gamma l_i$; (ii) $-A_i = \alpha P_i^{\beta} l_i^{\gamma}$. Its important to emphasize that Asiedu and Fosu in own articles mentioned line of agriculture credit influence $S_i = E(Y) = 1/X_i = \beta_0 + \beta_1 X_i$ and logistic $S_i = E(1/X_i) = 1/(1 + e^{\beta_0 + \beta_1 X_i})$ model formation. At the same time Széles et al. (2014) analysed credit tendentions to agriculture in Humgary during 1995-2012 by the using of line and exponesional functions: $Y = a + bx$, model equation $y = 25.585x + 70.718$ $(R^2 = 0.918)$ və $Y = ab^x$, model equation $y = 0.1027e^{-0.056x}$ $(R^2 = 0.858)$.

Bashir and other scientists mentioned the main role of agriculture credits to agriculture transformation and influence of increasing participation of farmers in production process by the use of complex regression analysis (was appealed to Kobb-Duglas production function). Kumar et al. (2010) in own research article, the loan is dependent on the agricultural sector, households borrowed model mentioned 15 factors –so, household age, sex, composition, soil area, 3 type of social groups. 2 type of education level, secondary education, being of higher diploma specialist, household type-agriculture labor, household type-other labor household type-own labor and other employment.

Thomaj (2014) in own model accepted 5 main changes: (i) price index of agriculture products; (ii) loan to agriculture; (iii) inflation; (iv) GVP at agriculture; (v) import of goods included to "food, drink and tobacco" category. Model shows that bank sector finance agriculture as giving season short-term loans. In this way, internal production is stimulated, import is decreased, agriculture prices become low. This means that selling and income for it will increase and payments will be carried out. Data shortages and short-term will be accepted as shortage.

Statistic information for investigation

Information for researches were used from publishes of Azerbaijan State Statistic Committee, annual report of Ministry of Economy and Industry and monthly and annual reports of Central Banks, quarterly and annual reports of NFES. In this situation, indications were turned into indexes and accounts were carried out.

Table 1. Agricultural enterprises, the main economic indicators (thousand AZN)

	NFES credits for processing of agriculture products	NFES credits for production of agriculture products	Bank credit to processing and agriculture	GIP.Agriculture. forestry and fishing	Profit	Loss	Balance income	Money income from selling	Income from total selling (-loss)	Income from total selling (-loss in plant)	Income from total selling (-loss in Livestock)	Total income (with actual prices)	General agricultural products (with actual prices of proper years)
	X1	X2	X3	Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	Y9	Y10
2005	7053.4	12987.8	97.6	1145.5	7098	1207	5891	70882	5886	2769	3117	14757	79683
2006	12576.5	23484	136.49	1329.3	15798	1132	14666	113561	10333	3572	6761	27908	98903
2007	13940.6	24130.4	197.24	1854.8	21890	1057	20833	157826	17369	5639	11730	39076	136783
2008	8442.5	28759.7	261.47	2236	28013	980	27033	197079	25346	6775	18571	50101	160464
2009	19643.5	22573.3	394.76	2179.5	36605	2209	34396	190167	28769	4708	24061	67149	175461
2010	10350	55651.9	441.35	2344.9	32385	4728	27657	188635	21876	8855	13021	71604	187694
2011	16853	70358.5	466.72	2643.5	41912	4992	36920	207904	34021	8980	25041	71623	198806
2012	27860	99968.5	546.23	2783.1	52250	4050	48200	294726	43645	14609	29036	86045	263180
2013	32679	149511	733.25	3057.8	56340	4057	52283	333604	45067	17534	27533	91903	304766
2014	22204.5	164191	847.28	3111	67331	3367	63964	402402	42076	16234	25842	102723	359315
2000=100													
2005	100	100	100	100	100	100	100	100	100	100	100	100	100
2006	178.3	180.8	139.8	116.0	222.6	93.8	249.0	160.2	175.6	129.0	216.9	189.1	124.1
2007	197.6	185.8	202.1	161.9	308.4	87.6	353.6	222.7	295.1	203.6	376.3	264.8	171.7
2008	119.7	221.4	267.9	195.2	394.7	81.2	458.9	278.0	430.6	244.7	595.8	339.5	201.4
2009	278.5	173.8	404.5	190.3	515.7	183.0	583.9	268.3	488.8	170.0	771.9	455.0	220.2
2010	146.7	428.5	452.2	204.7	456.3	391.7	469.5	266.1	371.7	319.8	417.7	485.2	235.6
2011	238.9	541.7	478.2	230.8	590.5	413.6	626.7	293.3	578.0	324.3	803.4	485.3	249.5
2012	395.0	769.7	559.7	243.0	736.1	335.5	818.2	415.8	741.5	527.6	931.5	583.1	330.3
2013	463.3	1151.2	751.3	266.9	793.7	336.1	887.5	470.6	765.7	633.2	883.3	622.8	382.5
2014	314.8	1264.2	868.1	271.6	948.6	279.0	1085.8	567.7	714.8	586.3	829.1	696.1	450.9

Source: authors' calculations

C. Results and Discussion

1. Econometric Results

We used a method of multifactor correlation and regression analysis. which was carried out using SPT "PASW Statistic 18".

Y1=	94.769	+0.039x_1	– 0.050x_2	+0.281x_3
Sig.	(0.004***)	(0.719)	(0.430)	(0.027**)
Correlations		(0.751)	(0.863)	(0.942)
t-statistic	(4.559)	(0.377)	(-0.846)	(2.897)
Std. Error	(20.789)	(0.104)	(0.059)	(0.097)
F=17.89663; R^2=0.89948; DW=1.659				

Y2 =	27.596	+0.333x_1	–0.110x_2	+1.073x_3
Sig.	(0.630)	(0.267)	(0.499)	(0.005***)
Correlations		(0.815)	(0.919)	(0.978)
t-statistic	(0.508)	(1.223)	(-0.720)	(4.235)
Std. Error	(54.350)	(0.272)	(0.153)	(0.253)
F=57.909; R^2=0.967; DW=2.270				

Y3=	48.143	–0.026x_1	– 0.145x_2	+0.619x_3
Sig.	(0.658)	(0.962)	(0.636)	(0.237)
Correlations		(0.529)	(0.633)	(0.714)
t-statistic	(0.463)	(–0.050)	(–0.499)	(1.282)
Std. Error	(103.480)	(0.519)	(0.292)	(0.482)
F=2.267815; R^2=0.531376; DW=0.983				

Y4=	23.386	+0.407x_1	– 0.103x_2	+1.166x_3
Sig.	(0.759)	(0.307)	(0.633)	(0.014*)
Correlations		(0.786)	(0.781)	(0.815)
t-statistic	(0.322)	(1.116)	(–0.503)	(3.440)
Std. Error	(72.734)	(0.365)	(0.205)	(0.339)
F=41.24149; R^2=0.953748; DW=2.139				

Y5 =	86.443	+0.063x_1	+0.087x_2	+0.376x_3
Sig.	(0.073)	(0.764)	(0.466)	(0.089)
Correlations		(0.785)	(0.043)	(0.964)
t-statistic	(2.175)	(0.315)	(0.778)	(2.030)
Std. Error	(9.737)	(0.199)	(0.112)	(0.185)
F=30.01182; R^2=0.937523; DW=1.654				

Y6 =	3.317	+ 0.825x_1	– 0.205x_2	+ 0.864x_3
Sig.	(0.969)	(0.092)	(0.411)	(0.065)
Correlations		(0.861)	(0.850)	(0.913)
t-statistic	(0.040)	(2.001)	(–0.883)	(2.255)
Std. Error	(82.225)	(0.412)	(0.232)	(0.383)
F=18.44826; R^2=0.902192; DW=1.992				

Y7 =	59.423	+ 0.267x_1	+ 0.348x_2	+ 0.059 x_3
Sig.	(0.277)	(0.326)	(0.048*)	(0.806)
Correlations		(0.826)	(0.786)	(0.781)
t-statistic	(1.195)	(1.070)	(2.480)	(0.257)
Std. Error	(49.716)	(0.249)	(0.140)	(0.232)
F=35.9975; R^2=0.947365; DW=2.414				

Y8 =	– 46.527	+ 1.320x_1	– 0.696x_2	+ 1.579x_3
Sig.	(0.735)	(0.092)	(0.109)	(0.042*)
Correlations		(0.809)	(0.786)	(0.781)
t-statistic	(–0.354)	(2.005)	(–1.879)	(2.579)
Std. Error	(131.39)	(0.658)	(0.370)	(0.612)
F=10.75322; R^2=0.843177; DW=2.187				

Y9 =	51.764	+0.167x_1	– 0.263x_2	+1.093x_3
Sig.	(0.227)	(0.420)	(0.051**)	(0.001***)
Correlations		(0.771)	(0.786)	(0.781)
t-statistic	(1.345)	(0.865)	(–2.525)	(6.093)
Std. Error	(38.492)	(0.193)	(0.109)	(0.179)
F=61.64113; R^2=0.968574; DW=2.050				

Y10 =	71.541	+ 0.027x_1	– 0.057x_2	+ 0.330x_3
Sig.	(0.008***)	(0.776)	(0.313)	(0.008***)
Correlations		(0.791)	(0.786)	(0.781)
t-statistic	(3.883)	(0.297)	(–1.100)	(3.851)
Std. Error	(18.423)	(0.092)	(0.052)	(0.086)
F=89.69836; R^2=0.978189; DW=2.041				

Note:*** p<0.01; **p<0.05; * p<0.1.

It can be said accordance with the indications of calculations that increase of NFSE credits for agriculture products processing and production and allocated bank credits for agriculture products processing and production resulted with both either microeconomic or finance indications of agrarian field. Ahmad (2011) thought that agriculture credits actual indirect influence to agriculture products.

Cubic	y_1=	8.096	+1.118x	– 0. 002x^2	+9.840E-7x^3
	Sig.	(0.885)	(0.050*)	(0.195)	(0.133)
	Standardized Coefficients Beta		(5.905)	(–10.266)	(5.299)
	t-statistic	(0.150)	(2.446)	(–1.736)	(1.458)
	Std. Error	(53.826)	(0.457)	(0.001)	(0.000)
	F=16.738; R^2=0.893				

Logarithmic	y_2=	–1425.515	+335.426lnx
	Sig.	(0.000**)	(0.000**)
	Standardized Coefficients Beta		(0.959)
	t-statistic	(–7.040)	(9.616)
	Std. Error	(202.497)	(34.880)
F=92,476; R^2=0,920			

Cubic	y_2=	–190.803	+3.714x	– 0.006x^2	+3.112E-6x^3
	Sig.	(0.404)	(0.085)	(0.220)	(0.287)
	Standardized Coefficients Beta		(4.323)	(–7.039)	(3.694)
	t-statistic	(–0.898)	(2.057)	(–1.367)	(1.168)
	Std. Error	(212.510)	(1.805)	(0.004)	(0.000)
F=22.741; R^2=0.919					

S	Ln(y_2)=	6.996	–233.967(1/x)
	Sig.	(0.000**)	(0.000**)
	Standardized Coefficients Beta		(–0.960)
	t-statistic	(60.709)	(–9.719)
	Std. Error	(0.115)	(24.073)
F = 94.463; R^2 = 0.922			

Quadratic	y_3=	–129.859	1.734x	– 0. 001x^2
	Sig.	(0.141)	(0.004***)	(0.009***)
	Standardized Coefficients Beta		(3.972)	(–3.395)
	t-statistic	(–1.657)	(4.207)	(–3.596)
	Std. Error	(78.358)	(0.412)	(0.000)
F=13,204; R^2=0,790				

Cubic	y_3=	–195.913	+2.347x	– 0.003x^2	+9.480E–7x^3
	Sig.	(0.296)	(0.158)	(0.425)	(0.674)
	Standardized Coefficients Beta		(5.375)	(-6.972)	(2.214)
	t-statistic	(–1.145)	(1.615)	(–0.855)	(0.442)
	Std. Error	(171.102)	(1.454)	(0.003)	(0.000)
	F=7,856; R^2=0,797				

Logarithmic	y_4=	–1606.139	376.617Lnx
	Sig.	(0.000***)	(0.000***)
	Standardized Coefficients Beta		(0.947)
	t-statistic	(–6.152)	(8.375)
	Std. Error	(261.058)	(44.968)
	F=70,146; R^2=0,898		

Cubic	y_4=	–189.756	+3.994x	– 0.006x^2	+3.556E–6x^3
	Sig.	(0.509)	(0.133)	(0.281)	(0.335)
	Standardized Coefficients Beta		(4.089)	(–6.821)	(3.712)
	t-statistic	(–0.701)	(1.738)	(–0.855)	(1.048)
	Std. Error	(270.532)	(2.298)	(0.005)	(0.000)
	F=17.734; R^2=0.899				

S	ln y_4=	7.119	–240.609(1/ x)
	Sig.	(0.000***)	(0.000***)
	Standardized Coefficients Beta		(–0.952)
	t-statistic	(54.087)	(–8.751)
	Std. Error	(0.132)	(27.495)
F=76.582; R^2=0.905			

Cubic	y_5=	–2.774	+1.553x	–0.002x^2	+1.528E–6x^3
	Sig.	(0.982)	(0.171)	(0.320)	(0.340)
	Standardized Coefficients Beta		(3.382)	(–5.773)	(3.394)
	t-statistic	(–0.024)	(1.554)	(0.002)	(1.037)
	Std. Error	(117.581)	(0.999)	(0.002)	(0.000)
	F=21.083; R^2=0.913				

Logarithmic	y_6=	–1180.274	+285.824 lnx
	Sig.	(0.001***)	(0.000***)
	Standardized Coefficients Beta		(0.925)
	t-statistic	(–4.895)	(6.882)
	Std. Error	(241.127)	(41.535)
	F=47.357; R^2=0.855		

Cubic	y_6=	–43.773	+2.167x	–0.002x^2	+ 4.159E–7x^3
	Sig.	(0.868)	(0.350)	(0.724)	(0.899)
	Standardized Coefficients Beta		(2.853)	(–2.556)	(0.558)
	t-statistic	(–0.174)	(1.013)	(–0.371)	(0.132)
	Std. Error	(251.764)	(2.139)	(0.005)	(0.000)
	F=11.770; R^2=0.855				

Quadratic	y_7=	4.101	+1.021x	+0.000x^2
	Sig.	(0.935)	(0.005***)	(0.143)
	Standardized Coefficients Beta		(1.631)	(–0.670)
	t-statistic	(0.085)	(4.022)	(–1.652)
	Std. Error	(48.266)	(0.254)	(0.000)
	F=86.976;R^2=0.961			

Cubic	y_7=	51.777	+ 0.579x	+ 0.001x^2	–6.843E-7x^3
	Sig.	(0.639)	(0.539)	(0.756)	(0.621)
	Standardized Coefficients Beta		(.925)	(1.131)	(–1.115)
	t-statistic	(0.494)	(0.651)	(0.325)	(–0.521)
	Std. Error	(104.750)	(0.890)	(0.002)	(0.000)
	F=52.040;R^2=0. 963				

S	ln(y_8)=	7.129	–231.901(1/x)
	Sig.	(0.000***)	(0.001***)
	Standardized Coefficients Beta		(–0.879)
	t-statistic	(33.547)	(–5.224)
	Std. Error	(0.213)	(44.394)
	F=27.287;R^2=0.773		

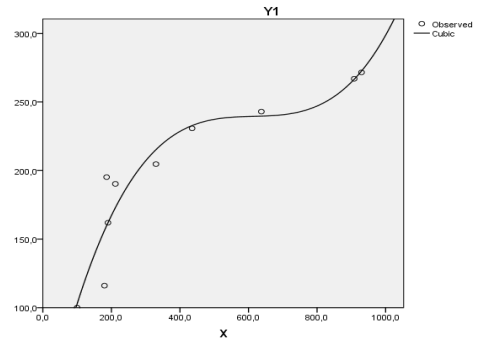
Cubic	y_9=	–228.035	+3.895x	– 0.006x^2	+3.571E-6x^3
	Sig.	(0.212)	(0.031)	(0.087)	(0.131)
	Standardized Coefficients Beta		(6.211)	(11.064)	(5.807)
	t-statistic	(–1.398)	(2.810)	(–2.044)	(1.746)
	Std. Error	(163.155)	(1.386)	(0.003)	(0.000)
	F=20.365;R^2=0.911				

S	ln(y_9)=	6.747	–209.326(1/x)
	Sig.	(0.000***)	(0.000***)
	Standardized Coefficients Beta		(–0.951)
	t-statistic	(58.793)	(–8.733)
	Std. Error	(0.115)	(23.970)
F=76.262;R^2=0.905			

Quadratic	y_{10}=	79.481	+0.493x	– 0.000x^2
	Sig.	(0.071)	(0.040)	(0.471)
	Standardized Coefficients Beta		(1.369)	(–0.415)
	t-statistic	(2.130)	(2.513)	(–0.761)
	Std. Error	(37.322)	(0.196)	(0.000)
F=46.645;R^2=0.930				

Cubic	y_{10}=	0.729	+ 1.224x	–0.002x^2	+ 1.130E–6x^3
	Sig.	(0.992)	(0.100)	(0.240)	(0.270)
	Standardized Coefficients Beta		(3.396)	(–5.582)	(3.199)
	t-statistic	(0.010)	(1.942)	(–1.303)	(1.215)
	Std. Error	(74.183)	(0.630)	(0.001)	(0.000)
	F=33.708;R^2=0.944; DW=2.041				

Note:*** p<0.01;**p<0.05;* p<0.1.



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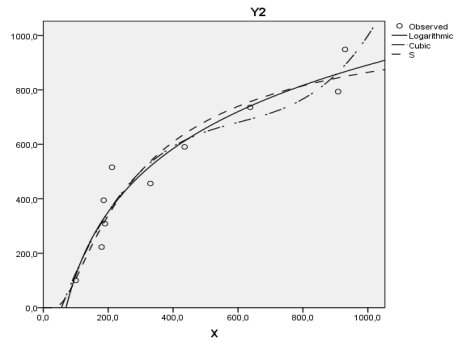

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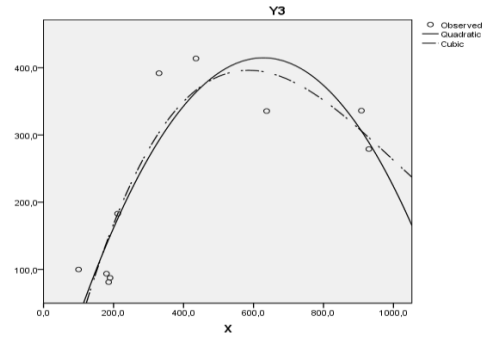

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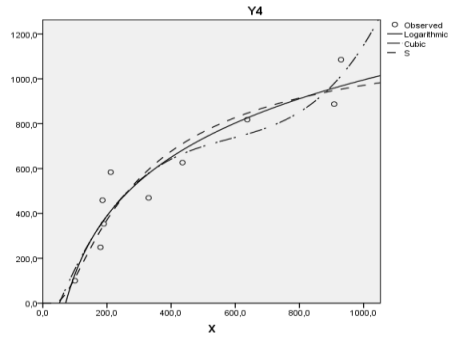

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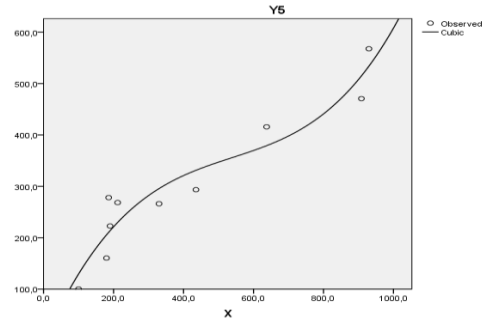

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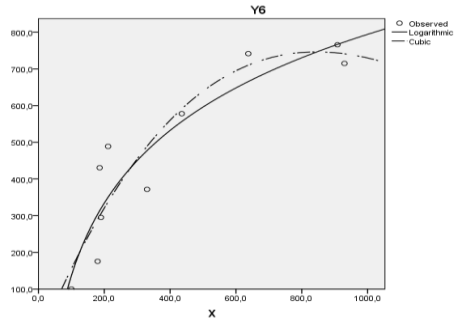

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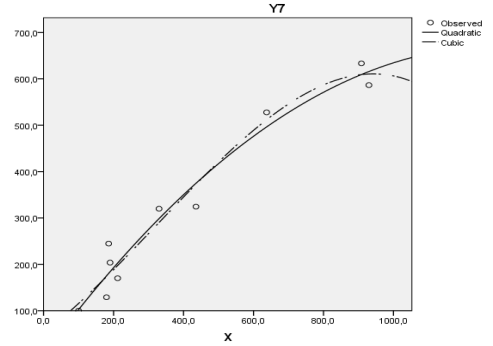

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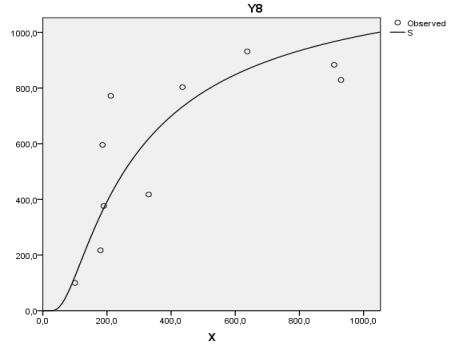

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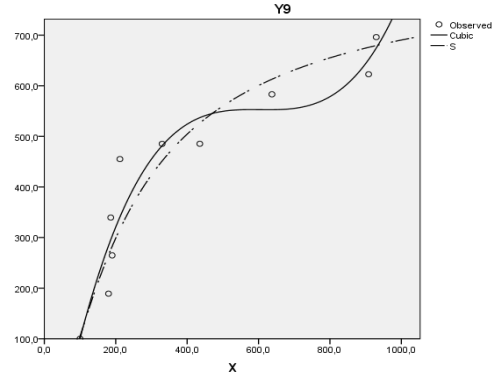

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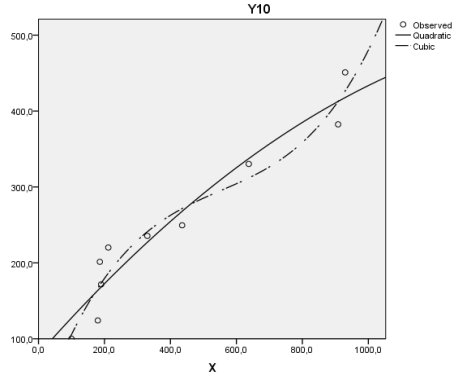


k)

Figure. 1. The selected function

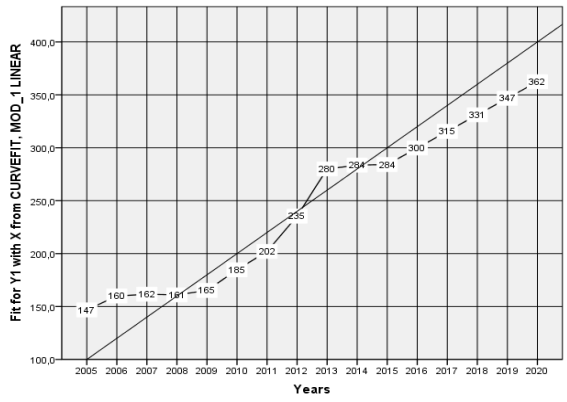
To express both either macroeconomic or finance indications influence of NFES and bank credits to agrarian field the following functions were selected: (a) cubic for GIP in Agriculture. Forestry and fishing; (b) profit logarithmic, cubic and S; (v) quadratic and cubic for loss; (q) logarithmic, cubic and S for balance income (loss); (d) cubic for money income from selling; (e) logarithmic and cubic for income from total selling (loss); (f) quadratic, cubic for income for total selling (-loss in plant); (g) S for income from total selling (-loss in Livestock); (h) cubic and S for general income; (i) quadratic and cubic for agriculture total products.

2. Difficulties and Discussions

Difficulties during article preparation were connected with the having of Azerbaijan Republic to independent policy and independent economy as former soviet republic and some aspects related with it. So, notwithstanding some signs of market policy in Eastern Europe countries are available now, but access to market policy of present CIS countries has been started from 1991-1992 years and first full collective and state farms cancelled and lands were issued to local population and property of village laborers. And it resulted with difficulties because liberalization works of economy carried out and state support minimized. However, with the launch of the full power of oil contracts for oil exporters and oil prices in the world market due to a favorable level of support for the agricultural sector have been restored, we started to give grants and soft loans.

Increase in soft loans for agriculture products processing by NFES during 2006-2007 years, decrease in 2008 year and rapid increases during 2009 year, 47.3% decrease in 2010 year and relatively stable growth of next years and 21.5% decrease on credits allocated for agriculture production by NFES, 2.5 increase for next year and relatively stable growth of next years and at the same time reality of forecasting could raise doubts. However, commercial banks are focusing on production and processing of agricultural products has not been sharp fluctuations in the volume of loans. That's why we tried to make simple models using from complex correlation-regression model for determination influence of soft loans by NFES to agriculture products processing and production and credits by commerce banks for agriculture products processing and production to main macroeconomic and finance indications.

Then a bit of research to the deep agrarian sector loans allocated by combining these three as an influential factor agreed. As part of the active factor in the development of the agricultural sector waking up, to analyze the impact of macroeconomic and financial indicators and forecasts and models were selected to provide the appropriate curves, curves to be visual graphics model was given. In particular, it is necessary that the dependent and independent variables, though in different ways, are built using curves RASW Statistics18 program, but they will have to apply to functions through the provision of forecasts. These forecasts are provided in Figure 2.



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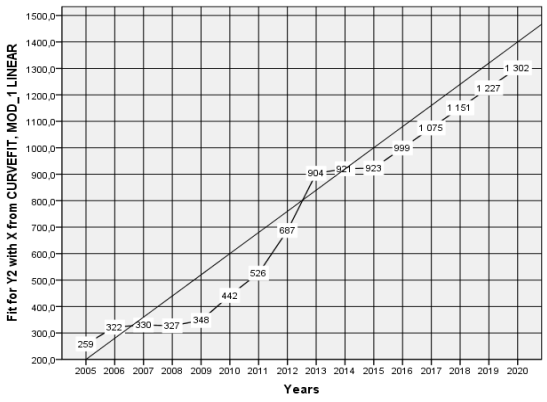

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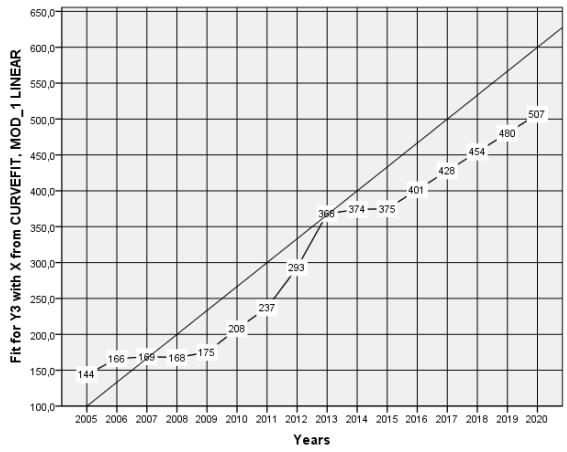

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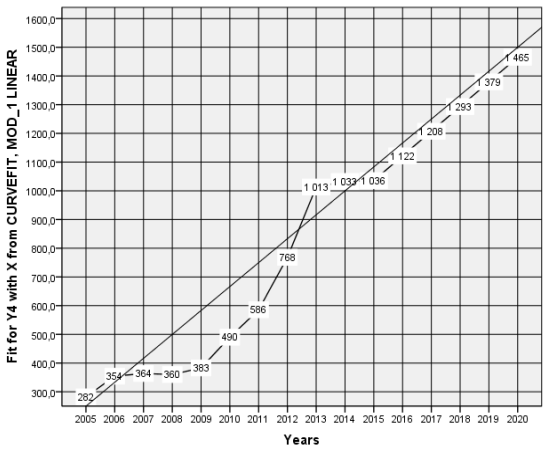

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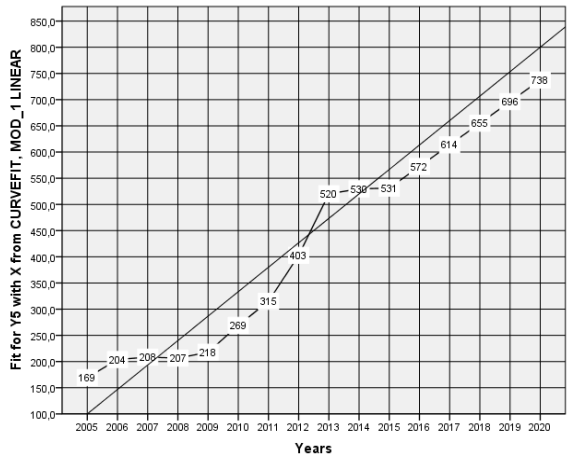

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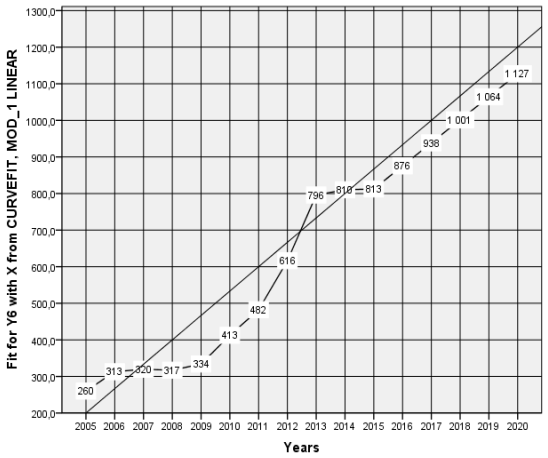

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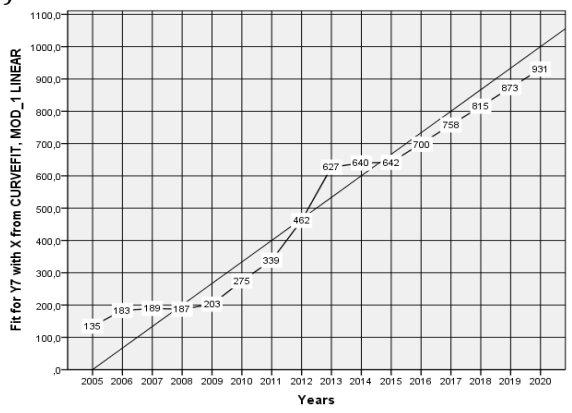

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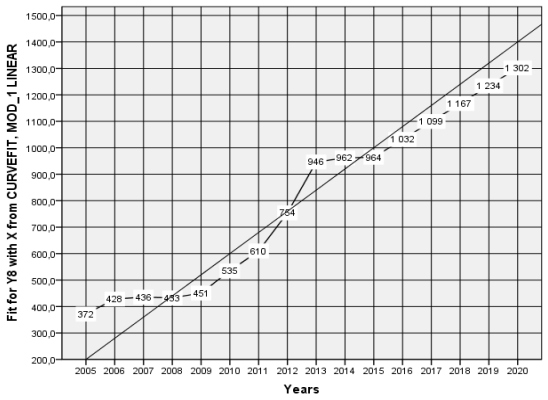

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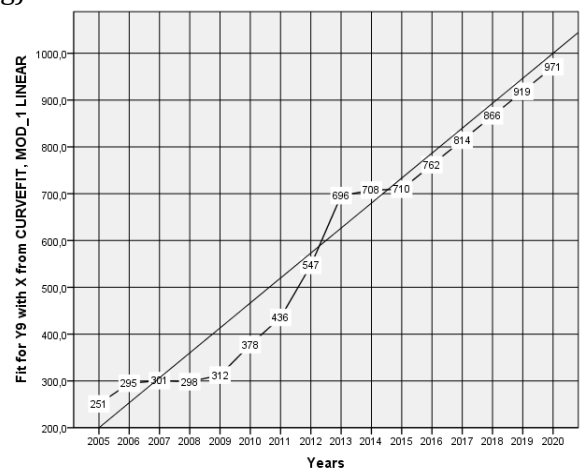

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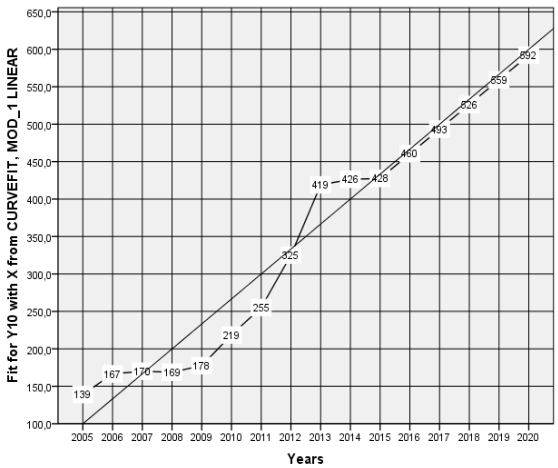

j)

Figure. 2. Forecasts

D. Conclusion

Azerbaijan is agrarian-industrial state based on natural resources. This state met with first profit of oul contracts with Western Companies concluded in 1994 during 2005-2006 years. Baku-Tbilisi-Jeyhan main export oil pipeline began pumping oil in the world market and the favorable conjuncture increase of oil exports, namely the Republic of high oil prices has enough oil in dollars. The socio-economic development of these funds and special state programs were sufficient funds. One of these fields was agrarian field. In this situation NFES started to direct its main resources to agrarian field. But fluctuations in the market price of the agricultural sector funding and as a result, have caused a lot of change in the macroeconomic and financial indicators in 2008-2010 years. General statistics and data analysis as well as a visual look at the table prepared for the fluctuations were observed in all indicators except for bank loans.

So, descent and rise sharply of credits by NFES to agriculture products processing and production during 2008-2010 years were resulted with the decreasing in GIP of kənd təsərrüfatı, meşə təsərrüfatı və balıqcılıqda during 2009, decrease of profit in 2010 year, increase of loss during 2009, decrease of mone income from total balance income selling (lost), decrease of income from total selling (loss), decrease of income from total selling of plant in 2009 and cattle-breeding in 2010 year. Generally, general income, general agricultural products increased. Available of such situations raised difficulties during calculations. And being of some doubts are inevitable. But of course, we can substantiate with we have seen in the last two years, the visual indicators of lower oil prices and other economic uncertainties.

In other words, the financial resources allocated to the agricultural sector through the forecast for the years specified in the loan, then the analysis of macroeconomic and financial performance of the agricultural sector forecasts were dependent on loans from the free factor. Such an option may be the difficulty in forecasting the probability of selection on the basis of their primary functions is associated with forecasting of 2015-2010 years.

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