



AgEcon SEARCH
RESEARCH IN AGRICULTURAL & APPLIED ECONOMICS

The World's Largest Open Access Agricultural & Applied Economics Digital Library

This document is discoverable and free to researchers across the globe due to the work of AgEcon Search.

Help ensure our sustainability.

Give to AgEcon Search

AgEcon Search

<http://ageconsearch.umn.edu>

aesearch@umn.edu

*Papers downloaded from **AgEcon Search** may be used for non-commercial purposes and personal study only. No other use, including posting to another Internet site, is permitted without permission from the copyright owner (not AgEcon Search), or as allowed under the provisions of Fair Use, U.S. Copyright Act, Title 17 U.S.C.*



**UNIVERSITY OF BELGRADE
FACULTY OF AGRICULTURE**



Book of Proceedings

The Seminar

**AGRICULTURE AND RURAL DEVELOPMENT -
CHALLENGES OF TRANSITION AND
INTEGRATION PROCESSES**

50th Anniversary

DEPARTMENT OF AGRICULTURAL ECONOMICS



Belgrade-Zemun, 2013.

Book of Proceedings

The Seminar
Agriculture and Rural Development -
Challenges of Transition and Integration Processes

Published by Department of Agricultural Economics,
Faculty of Agriculture, University of
Belgrade

For the Publisher Prof Milica Petrović, dean
Faculty of Agriculture, University of
Belgrade

Edited by Prof Natalija Bogdanov
Prof Simo Stevanović

Prepress Prof Simo Stevanović

Copyright 2013 by authors. All rights reserved.
Readers may make verbatim copies of this
document for non-commercial purposes by any
means, provided that this copyright notice appears
on all such copies.

ISBN: 978-86-7834-181-6

CREDIT AS THE FINANCIAL SOURCE OF THE SERBIAN AGRICULTURE

Gordana Radović¹, Radovan Pejanović², Zoran Njegovan³

Summary

The aim of this paper is to describe the role of credit as a source financing agriculture in the Republic of Serbia in the recent period, and to determine the advantages and disadvantages of the use of this financial instrument for financing agricultural production. Agriculture, given its specific production is not capable self-financing. And that they it needs to be informed by proper financing models. In the Republic of Serbia in the recent period there was not an adequate funding model was used, and the problem of financing agricultural production is still very actual. This is the most serious and complex problem of domestic agriculture and agricultural policy. Main obstacle to a higher use of loan funds in Serbian agricultural economy are: the instability and uncertainty of the agricultural and food production, unsafe placement of unknown prices of agricultural crops in the torque delivery and inconsistent agricultural policy measures. Ese factors add to the limiting factor for greater investments in agriculture and a low rate of return of agricultural production, which is limited by low yields, low productivity, and price disparity. On the other hand, there are few banks in the reporting period, as part of their loans, and investments have directed towards agriculture. The reasons are the high risks of agricultural production, its dependence on weather conditions, the risk of disease outbreaks and large-scale as well as large fluctuations in prices of agricultural products. Risk adverse banks generates a high degree of dispersion of demand for financial services, high costs of obtaining information and performing financial transactions for farmers, and the lack of quality of loan collateral, due to unregulated or poorly regulated property rights. The demand for agricultural credit is not evenly distributed throughout the year, but is significantly higher in the sowing period, which requires a larger book of business assets of banks in this period, and thus the inability to qualify it in profitable economic activities and in the short term. Farmers have limited confidence in the banking sector, and they lack experience in dealing with the banks. Based on the research it can be concluded that loans are not performing source of funding in agriculture. In order

¹ Gordana Radović, MSc., Assistant, University of Novi Sad, Faculty of Agriculture, Serbia, e-mail: gordana.radovic09@gmail.com

² Radovan Pejanović, Ph.D., Full Professor, University of Novi Sad, Faculty of Agriculture, Serbia, e-mail: pejanovic@polj.uns.ac.rs.

³ Zoran Njegovan, Ph.D., Full Professor, University of Novi Sad, Faculty of Agriculture, Serbia, e-mail: njegovan@polj.uns.ac.rs.

to provide more favorable bank loans for agricultural development in the Republic of Serbia, autonomous involvement of commercial banks is not sufficient. It is necessary to introduce coordinated activities of all state bodies, which would allow the reduction of the political, institutional and financial risk in these economic conditions.

Key words: *agriculture, agricultural finance, credit as the financial source, the Republic of Serbia.*

1. Introduction

The word “credit” derives from the Latin word “credium”, which means credit or credit, i.e. from the word “credo” which means to believe or trust. The essence of such a relation is maintaining liquidity of businesses, in order to mobilize and transfer the fragmented funds into production. During the process of crediting funds to agricultural production, it is extremely important to place the funds in a timely manner, as the investment must be realized in the optimum deadline for starting the production. If there is a delay during the fund placement in the agriculture, the consequences can include low yields and lower production volume, which leads to inability of paying the credits in the agreed deadline.⁴

The agriculture needs a constant financial and credit support because of: (a) the need to invest the funds into production at once and in high volume in accordance with the nature of the production; (b) long period of retaining the funds, or low turnover of the invested funds; (c) low profit, characteristic for primary agricultural production, which disables the forming of its own accumulation, or own financial sources.⁵ Farmers usually take credits in order to buy necessary raw materials, i.e. working assets in order to start and provide the quality production. The credit is necessary if they are considering buying agricultural machinery and equipment, more land or building the facilities for agricultural production.

In recent years, agricultural credits in domicile conditions have been realized through; (1) natural-commodity credits; (2) subsidies from primary issue of the Central bank; (3) commercial bank credits; (4) bank credits supported by the Ministry of Agriculture; (5) special credits supported by state financial institutions.

Commodity credit is an informal credit arrangement and represents the least favourable form of credit for farmers. Basically, this credit arrangement means that a certain amount of the necessary production input, provided by manufacturing

⁴ Radović G., (2009), MSc Thesis: *Models of Financing Agriculture in the period of Transition*, University of Novi Sad, Faculty of Economics, Subotica, p.40.

⁵ Pejanović R., (2013), *Essays on Agrarian and Rural Economy*, University of Novi Sad, Faculty of Agriculture

industry, is exchanged for agricultural products. The interest rate is not stated in percentage, but by parity, and its vagueness of rates does not give the farmers clear picture of how much money this kind of credit actually costs.⁶

Agriculture in domicile conditions had beneficial credit facilities up to 1994, which were selected credits with favourable interest rates, approved by primary issues of the Central bank. This type of credit was canceled as it proved to be the generator of inflation, even though those credits were commodity based. At the same time, other financing sources that would replace this model were not introduced, which is why farmers had to take credits with commercial banks that offered extremely high interest rates.⁷

The aim of this paper is to determine the role of credit as the source of financing of agriculture in the Republic of Serbia, as well as to establish strengths and weaknesses of this model, as the means of financing the agricultural production. The basic hypothesis we will start our research from, is that in order to achieve agricultural development in the Republic of Serbia, we need to have an adequate credit support. In order to test the hypotheses, the paper used analytic-empirical, comparative, qualitative and quantitative methods. The research conducted suggests that the credits, which are granted to farmers by commercial banks in the past in our environment characterized by: high interest rates, short repayment periods, high demands for collateral, and high associated costs of the credit approval procedure. The credit support should be tailor made for placement of funds, portion of annuity, credit processing costs, seasonal character, dynamics and specific nature of certain types of agricultural production. Credit support to domicile agricultural producers is more than necessary, as they do not have the means to finance their own production, while the agrarian budget funds, that allow the right to subsidies, are limited. In order to test the hypotheses, the paper will be used as sources of data obtained from five commercial banks, which are in terms of domicile leading in terms of lending to agriculture and agricultural lending, which results in the past implemented with the support of the Ministry of Agriculture and Government of the Autonomous Province of Vojvodina.

2. Commercial bank credits

According to the attitudes of the relevant authors, an adequate credit policy can lead to positive effect on agricultural production. It is possible to influence faster development of certain types of agriculture by establishing selective credit policy

⁶ Pejanović R., Njegovan Z., (2011), *Principles of Economy and Agrarian Policy*, University of Novi Sad,. Faculty of Agriculture

⁷ Radović G., (2009), MSc Thesis: *Models of Financing Agriculture in the period of Transition*, University in Novi Sad, Faculty of Economics, Subotica, p.29.

(lower interest rates, longer repayment period with the existence of grace period), and make possible for modern means for production to be introduced, and at the same time, accelerate the process of agricultural modernization. Inadequate credit policy, which does not account for unique features of agricultural production, can lead to excessive indebtedness of agricultural enterprises and preclude them from further development.⁸

Domicile market of agricultural credits is limited due to the following factors: (a) high risk of agricultural production; (b) low percentage of agricultural insurance; (c) non existence of credit history (d) low level of productivity and accumulation of agricultural production; (e) non existence of adequate warranty because of disorganized cadastre offices, as well as long and quite expensive legal processes that these warranties require; (f) lack of expertise when it comes to drafting business plans; (h) lack of experts for agrarian business plan assessment in banking sector, and their lack of knowledge of specific types of agricultural production.

Credit facilities in agriculture are not appealing to commercial banks, not only because of the great risks, but also because of the high costs. Cooperation with agricultural entities requires extremely good territory coverage, or the existence of extended branch network, available to the producers in the most remote rural areas, which is impossible for smaller banks to offer. Furthermore, the demand for agricultural credits is uneven during the year, as it is considerably higher during sowing period, which also requires greater reserves of funds available at commercial banks in this period. At the same time, it also means that the banks can not use them for more profitable economic activities in a shorter period of time.⁹

It is important to emphasize that the banks can not treat the same all the lines of production, because there are more intense lines in agriculture, that need greater financial investments and extensive lines that require less investment. There is also a difference in profitability of certain agricultural production lines and their products' marketability. Due to different profitability of certain production lines, the banks should develop a system of selective interest rates.¹⁰

In the past, commercial banks on domicile credit market were not particularly interested in giving credits to agriculture because of the risks, insecure product placement, high costs of obtaining information and conducting financial transactions for the farmers. However, in the past five years, there has been a considerable rise of interest for rural financing of the banking sector, which can be explained by the arrival of the foreign banks that have had long traditions in

⁸ Božić D., Bogdanov N., Švarlić M., (2011), *Economics of Agriculture*, University of Belgrade, Faculty of Agriculture, p.109-110

⁹ Radović G., (2009), MSc Thesis: *Models of Financing Agriculture in the period of Transition*, University in Novi Sad, Faculty of Economics, Subotica p.44-45

¹⁰ Ibid

agricultural credits. Furthermore, we will present the conditions of credits found at five banks that, are currently key players and take the biggest share in agricultural credits in the Republic of Serbia.

Table 1: The terms of agricultural credit in ProCredit bank

<i>I) Credits for sowing and purchase of raw materials (seed, livestock feed, fertilisers, crop protection products, fuel)</i>	
Credit amount:	RSD or indexed credits
Repayment period:	up to 36 months;
Repayment scheme:	bullet repayment for credits with the maturity up to 12 months, at the end of the repayment term, , option for seasonal adjustment of the repayment scheme
Interest rate:	from 0.85% per month; ¹¹
<i>II) Credits for purchase of new and used machines</i>	
Credit amount:	RSD or indexed credits
Repayment period:	up to 120 months for indexed credits;
Repayment scheme:	not stated in the credit conditions;
Interest rate:	EIR from 7.74%;
Collaterals:	Machines purchased with the credit can be put up as collateral
Notice:	Down payment is not mandatory ; Credit support for VAT payments
<i>III) Credits for purchase, construction or expansion of agricultural facilities</i>	
Credit amount:	adjusted to the client's credit worthiness
Repayment period:	long term indexed credits of up to 15 years;
Grace period:	up to 12 months;
Repayment scheme:	monthly, quarterly or semi-annual instalments, depending on seasonal character of agricultural production
Interest rate :	not stated in the credit conditions;
Collaterals:	not stated in the credit conditions;
<i>IV) Credits for purchase of agricultural land</i>	
Credit amount:	adjusted to the client's credit worthiness
Repayment period:	long term indexed credits of up to 20 years;
Grace period:	up to 12 months;
Repayment scheme:	not stated in the credit conditions
Interest rate :	from 6.9% plus six-month Euribor; ¹²
Collaterals:	not stated in the credit conditions

Source: : <http://www.procreditbank.rs/en/strana/3531/loans-for-agricultural-production-improvement> (June 14, 2013)

¹¹ Radović G., (2013), *Banks offer credit*, "Poljoprivrednik" (Magazine of Agriculture), No. 2512, June 14, 2013, p.3

¹² Ibid

ProCredit bank was the first bank on our market to form the model of „granting the agricultural credit on your door step“, and today it has over 100 experts, working closely with the farmers. Procredit bank started granting agricultural credits in the Republic of Serbia in 2002, and it has invested over half a billion euro in agricultural credits, granted to individual producers. Besides these placements, the bank realised the credits to the agricultural sector, as well as the funds realised through ProCredit leasing.¹³

Besides the above mentioned credits in Table 1, ProCredic bank also offers the credits for improvement of energy efficiency of agricultural machinery, livestock expansion, planting orchards and vineyards, as well as building hot houses and greenhouses. ProCredit Bank has signed co-operation agreements with over 70 well-known producers and suppliers of livestock feed, seedlings and other agricultural goods and materials.

A ProCredit Bank credit allows the clients to make purchases from these suppliers and lets them receive unique benefits– interest rates for the credit are paid by the supplier, so the producers just have to repay the product purchase price.

Table 2: The terms of agricultural credit in Banca Intesa

<i>I)FarmerObrt Credits for purchase of raw materials for the current season, fodder, fattening livestock, maintenance and other current expenses.</i>	
Credit amount:	from 1000 up to 100 000 euro; indexed in EUR or RSD
Repayment period:	from 6 to 24 months;
Grace period:	up to 12 months;
Repayment scheme:	in monthly, quarterly or semi annual installments
Interest rates :	22% to 28% annually for RSD credits
	14% to 19% annually, for credits indexed in EUR
Effective rates:	25.72% to 29.17% for RSD credits
	16.01% to 19.23% for credits indexed in EUR
Collaterals:	promissory notes, co-debtor ship, mortgage or lien
<i>II) FarmerInvest Credits for purchase of land, silo building, barns, agricultural buildings, greenhouses, cold storage facilities, irrigation systems, investment in the foundation stock or perennial plants, etc.</i>	
Credit amount:	from 5000 up to 500 000 euro; indexed in EUR
Repayment period:	from 12 to 120 moths for indexed credits;
Grace period:	up to 24 months;
Repayment scheme:	in monthly, quarterly or semi annual installments
Interest rates :	22% to 28% annually for RSD credits for repayment period of
	up to 2 years
	from 11% + 3M Euribor up to 20% + 3M Euribor for credits
	indexed in EUR for repayment period of up to 10 years

¹³ Ibid.

Effective rates:	25.72% to 26.46% for RSD credits 13.15% do 13.45% for credits indexed in EUR
Collaterals:	promissory notes, co-debtor ship, mortgage or lien
<i>III) Credits for purchase of agricultural land</i>	
Credit amount:	up to 100 000 euro;
Repayment period:	up to 120 months;
Grace period:	up to 12 months;
Repayment scheme:	monthly instalments,
Interest rate :	not stated in the credit conditions;
Effective rates:	not stated in the credit conditions;
Collaterals:	promissory, bonds, mortgage on land
<i>IV) Credits for purchase of insurance policy in agriculture in cooperation with Delta Generali</i>	
Credit amount:	from 30 000 RSD up to 500 000 RSD
Repayment period:	up to 12 months;
Repayment scheme:	Model I – 3,6,9 months, repayment of the principal and interest rate one-off, upon maturity
	Model II – 12 months, repayment in 12 monthly installments
Interest rate :	22% annual, fixed
Effective rates:	from 22.90%
Collaterals:	promissory note; insurance policy transferred in favour of the bank

Source: <http://www.bancaintesa.rs>, (June 14, 2013)

Banca Intesa has been engaged in granting the credits to the registered agricultural enterprises since 2008 and by December 31, 2012, it has granted the total of 20 000 agricultural credits, worth over 100 million euro.¹⁴

Commercial Bank, in addition to these types of credits and approves credits and grants for energy efficiency improvements, Kombank credits based on 100% of deposits, credits from the KfW credit line, credits from local programs and economic development in the Balkans - Program LEDIB and lcredits for the purchase of agricultural land by the guarantee of the Guarantee Fund of APV.

Table 3: The terms of agricultural credit in Komercijalna Banka

<i>1) KomBank short-term Credits for financing working capital and current liquidity</i>	
Credit amount:	minimum of 1000 euro in RSD counter value; maximum – depending on the client’s credit worthiness; credits are granted in RSD, with and without currency clause

¹⁴ Radović G., (2013), *Banks offer credit*, “Poljoprivrednik” (Magazine of Agriculture), No. 2512, June 14, 2013, p.3

Repayment period:	up to 12months;
Grace period:	up to 12 months;
Repayment scheme:	at once or in monthly, quarterly or semi annual installments
Interest rates :	18.50% to 22% annually for RSD credits 10.95% to 14.45% annually, for credits indexed in RSD
Collaterals:	depend on the client's credit worthiness
<i>II) KomBank Credits for investments and permanent, working capital (purchase of livestock, new machinery, paying the rent, building greenhouses and hothouses, irrigation systems, planting perennial plants)</i>	
Credit amount:	minimum 1000 euro in RSD counter value; maximum – depending on the client's credit worthiness; credits are granted in RSD, with and without currency indexed
Repayment period:	up to 36 months – RSD; up to 84 months- RSD indexed; up to 36 months for permanent working capital; up to 6 months for machinery purchase
Grace period:	up to 12 months for other purposes; up to 24 months for planting perennials
Repayment scheme:	in monthly, quarterly or semi annual installments
Interest rates :	20.50% to 23% annually RSD 9.45% to 12.45% annually credits indexed in RSD
Collaterals:	depend on the client's credit worthiness
<i>III) Kombank Credits for purchase of agricultural land</i>	
Credit amount:	minimum 1000 euro in RSD counter value; maximum – depending on the client's credit worthiness; credits are granted in RSD indexed
Repayment period:	up to 120 months;
Grace period:	up to 12 months;
Repayment scheme:	monthly, quarterly or semi annual installments
Interest rate :	from six-month EURIBOR + 7,5% annual rate from six-month EURIBOR +10% annual rate
Security instruments:	depend on the client's credit worthiness
<i>IV) Credits for purchase, construction or extension of agricultural facilities</i>	
Credit amount:	minimum 1000 euro in RSD counter value; maximum – depending on the client's credit worthiness; credits are granted in RSD indexed
Repayment period:	up to 120 months;
Grace period:	up to 12 months;
Repayment scheme:	monthly, quarterly, semi annual or annual installments
Interest rate :	from six-month EURIBOR + 8,6% annual rate from six-month EURIBOR +11 % annual rate

Source: <http://www.bancaintesa.rs/code/navigate.aspx?id=116> (June 14, 2013)

Agricultural credits are very important segment of Credit Agricole bank. This bank has been financing agricultural production for more than 120 years. From 2009,

they have directed their focus on financing primary and food processing industry on domicile market¹⁵. In the following months, Credit Agricole bank in Serbia in cooperation with European Bank for Reconstruction and Development (EBRD) has prepared a special purpose credit line, worth 20 million euro, intended for financing agricultural companies in Serbia. Based on this credit line, the bank will grant short-term credits for working capital. The credits are indexed in EUR, the repayment period is up to 12 months with the conditions more favourable than the ones found on the market, while the collaterals are commodity bills.¹⁶

Table 4: The terms of agricultural credit in Credit Agricole Bank

<i>I) Credits for working capital (for procurement of raw materials for agricultural production, cattle for fattening, fodder etc).</i>	
Credit amount:	minimum of 5000 euro in RSD, credits are granted in RSD or indexed in EUR
Repayment period:	up to 12 months;
Grace period:	-
Repayment scheme:	in monthly, quarterly or semi annual installments or upon maturity
Interest rates :	depend on the client's solvency;
Collaterals:	depend on the client's credit worthiness
<i>II) Fixed Asset Credits (for financing of agricultural machinery, equipment, renovation or reconstruction of the agricultural facilities, purchase of greenhouses, hot houses and irrigation systems</i>	
Credit amount:	depends on the client's credit worthiness, indexed in EUR required down payment in investment is minimum 10%
Repayment period:	up to 7 years
Grace period:	up to 12 months
Repayment scheme:	in monthly, quarterly or semi annual installments
Interest rates :	nominal interest rate from 5.2% to 9% annually ¹⁷
Collaterals:	depend on the client's credit worthiness
<i>III) Investment Credits for purchase of agricultural land, building farms or silos</i>	
Credit amount:	minimum 5000 euro in EUR , credits are indexed in EUR required down payment in investment is minimum 10%
Repayment period:	up to 7 years;
Grace period:	up to 12 months;
Repayment scheme:	monthly, quarterly or semi annual installments
Interest rate :	nominal interest rate from 5.2% to 9% annually ¹⁸
Collaterals:	depend on the client's credit worthiness

Source: <http://www.creditagricole.rs/credit-agricole/english/agrobusiness/loans> (June 15, 2013)

¹⁵ Ibid

¹⁶ Press release, Credit Agricole Bank Serbia, June 4, 2013

¹⁷ Radović G., (2013), *Banks offer credit*, "Poljoprivrednik" (Magazine of Agriculture), No. 2512, June 14, 2013, p.3

¹⁸ Ibid

Financing agricultural production with commodity bills as collateral is the model found in other banks as well, in case it is in association with Indemnity Fund of the Republic of Serbia. According to the fund's data, 210 million dinars were granted in 2011, and 394 million dinars were granted in 2012 in Serbia. Their credit conditions, primarily interest rates, are more favourable than the market's rates. The reason lies in the fact that commodity bill is a short-term quality security and EBRD and Indemnity Fund have active part in these credit lines.¹⁹

Table 5: The terms of agricultural credit in AIK Bank

<i>I) Short-term Credits for financing working capital</i>	
Credit amount:	depend on the client's solvency, no down payment or deposit needed
Repayment period:	up to 12months;
Grace period:	-
Repayment scheme:	in monthly, quarterly or semi annual installments, fixed installments in RSD
Interest rates :	nominal rate 19.75% annually effective rate 24% annually
Collaterals:	not stated
<i>II Long –term Credits for purchase of new machinery</i>	
Credit amount:	from 10 000 to 30 000 EUR , indexed in EUR
Repayment period:	up to 72 months
Grace period:	up to 12 months
Repayment scheme:	in monthly, quarterly, semi annual or annual installments
Interest rates :	from six-month EURIBOR + 9% annual rate Interest rate is variable every January 1 and July 1
Collaterals:	depend on the client's credit worthiness
<i>III) Long term Credits for purchase of agricultural land, new machinery, irrigation system and hail protection</i>	
Credit amount:	depend on the client's solvency, no down payment or deposit needed, credits indexed in EUR
Repayment period:	up to 10 years for purchase of land; up to 6 years for purchase of new machinery worth more than 30 000 EUR; up to 5 years for purchase and installment of irrigation system and hail protect
Grace period:	up to 12 months;
Repayment scheme:	monthly, quarterly or semi annual or annual installments
Interest rate :	from six-month EURIBOR + 8,5% annual rate Interest rate is variable every January 1 and July 1

¹⁹ Radović, G. (2013), "Poljoprivrednik"(Magazine of Agriculture) No.2512, June 14, 2013, p.3

Collaterals:	depend on the client's credit worthiness
<i>IV) Long term Credits for purchase of agricultural land</i>	
Credit amount:	depend on the client's solvency, credits indexed in EUR
Repayment period:	up to 10 years;
Grace period:	up to 12 months;
Repayment scheme:	monthly, quarterly, semi annual or annual installments
Interest rate :	from six-month EURIBOR + 6.5 % annual rate Interest rate is variable every January 1 and July 1
Collaterals:	depend on the client's credit worthiness

Source: AIK bank leaflet, May 2013

Analysis of current credit conditions, agriculture by five commercial banks, which in the domestic credit market has a leading position to the extent approved agricultural loan refers to the following conclusions: (a) commercial banks were included in the study recognized the financial needs of agriculture in terms of different types of credits; (b) in terms of interest rates, terms and repayment period, foreign currency clause of collateral credit and high related costs in the approval process, analyzed the adverse credit financing source of local agriculture; (c) from commercial banks participating in the survey is the only ProCredit Bank adjusted repayment plan, individual credits, seasonal nature of agricultural production.

3. Credits with the Ministry of Agriculture's support

In 2004, Ministry of Agriculture, Forestry and Water Management of the Republic of Serbia started granting the short-term and long-term credits, whose conditions were more favourable than the commercial banks' credits, aiming to support the development of the market of agricultural credits and the local farmers who were "building credit history". The primary source of funds was the agrarian budget, and the credits were granted by the Development Fund and commercial banks. The beneficiaries were only registered agricultural estates.²⁰

The short-term credits were fully granted from the agrarian budget's funds, and the beneficiaries were individuals. The amount of the credit depended on the area of land registered as agricultural estate. The annual interest rate was 5%, and the credits were granted with the repayment period up to 12 months. This model of short-term lending was in use until the year 2007. At the same time, long-term credits were granted to the registered agricultural estates through commercial banks for: (a) planting perennial plants/crops; (b) construction of greenhouses and hothouses; (c) investing in livestock production; (d) purchase of new agricultural

²⁰ Regulation on the Register of Agricultural Holdings, Official Gazette of the Republic of Serbia, No. 45/2004.

machinery; (e) construction and purchase of irrigation systems. From 70 % to 90 % of financing sources came from the agrarian budget's funds, while the rest came from the commercial banks. The repayment period was up to 5 years, with the grace period from one to three years, included in the repayment period, and effective interest rate of 3% annually for the amount from 5 000 to 200 000 euros. The Investment Fund of the Republic of Serbia was founded in 2005 with the aim to grant agricultural credits to farmers. The financing funds were collected through the repayment of short-term and long-term credits, the budget's funds for the current year and other funds.²¹

The model of financing agriculture with the support of the Ministry of Agriculture was adjusted in 2008. According to the new model, short-term credits were fully granted by commercial banks. The annual interest rate was 5%, and every year, the Ministry participated by subsidizing the interest with 300 million dinars. The model of short-term credit was in use during 2009 and 2010. From 2008, the commercial banks participated with 80-90% in funding the long-term credits, while the Ministry participated with 10-20%, bearing in mind that the funds from the budget were placed as non refundable means – the subsidies. A new model was introduced in 2009 and was in use for the next two years. According to this model, the commercial banks participated with 60% in funding, while the Ministry participated with 40%. The credits were granted with the repayment period of up to 5 years (except for construction, planting vines and nuts fruits, where the repayment period was eight years), but in the first three years there was the bank's interest rate, and in the last two years (a 40% participation provided by the Ministry), there was not any interest rate, and therefore the annual interest rate was 5% for the total amount of the credit.²²

In 2010, local governments and Provincial Fund for the Development of Agriculture joined the system of granting the credits to the agriculture. The credits with the help of local governments were granted, as the local governments participated with 25% of the funds, just like the Ministry, and there was no charge of interest. The commercial banks participated with another 50% of funds and calculated their own interest rates. The agricultural credits for agricultural development, granted in cooperation with Provincial Fund for the Development of Agriculture, were placed to the registered agricultural estates on the territory of AP Vojvodina. The Fund participated with 300 million dinars annually in funding these credits, while the Ministry participated with 100 million dinars. The model of agricultural credits with the support of the Ministry of Agriculture was adjusted again in 2011, and the same model was in use the following year. According to the new model, the Ministry supported the agricultural production through credit

²¹ Source: <http://www.minpolj.gov.rs>, (June 10, 2013)

²² Ibid

support by subsidies for a part of the interest rate. The credits were not granted with currency clause, but the credit amounts were limited, just like the repayment period which was shorter – three years maximum. The credits were granted in 2011 with the interest rate of 8%, while the annual rate in 2012 was 6%. Regulation on the allocation of subsidies in agriculture and rural development in 2013 (Official Gazette of the Republic of Serbia br.10/2013) will provide funding for credit support to agriculture in the amount of 500 million.

4. The credits of specialized state institutions

The development of agricultural production in the Republic of Serbia is supported by favourable credit placements of:

- (a) The Development Fund of the Republic of Serbia
- (b) Provincial Fund for the Development of Agriculture
- (c) The Guarantee Fund of Autonomous Province of Vojvodina

The Development Fund of the Republic of Serbia was established by the Law on Republic of Serbia Development Fund.²³ The Fund is a state organization and its main goal is funding the investment programs of small and medium enterprises. The Fund was founded in 1967 as the Fund for development of affected areas, but it changed its name in 1992 when the Law on Development Fund was passed. The Fund can not grant credits to individual producers but only to agricultural enterprises – legal entities, and in the previous years, those were the credits granted to processing and food industry.²⁴

The Development Fund issues the guarantees to the entities with the commission of 1.8% of the amount annually. If the guarantee is issued in order to secure receivables with a currency clause, it is also applied for guarantee calculation.²⁵

Based on the data presented in Table 6, we can conclude that the credits granted by the Development Fund of the Republic of Serbia, is characterized by favorable interest rates, but very short repayment periods, bearing in mind that the maximum length of just six years, and for investment credits.

²³ Official Gazette of the Republic of Serbia, No.20/92 ; No. 107/05.

²⁴ Radović G., (2009), MSc Thesis: *Models of Financing Agriculture in the Period of Transition*, p.127

²⁵ Ibid

Table 6: The terms of agricultural credit, The Development Fund of the Republic of Serbia

<i>I) Short term Credits for working capital</i>	
Credit amount:	minimum of 2 000 000 RSD for legal entities; 500 000 for entrepreneurs maximum of 100 000 000 RSD for small enterprise maximum of 200 000 000 RSD for medium enterprise maximum of 300 000 000 RSD for big enterprise maximum of 5 000 000 RSD for entrepreneurs
Repayment period:	from 3 to 12months;
Grace period:	-
Repayment scheme:	according to the repayment scheme
Interest rates :	3% annual; with applied currency clause
Collateral :	blank promissory notes with the bank's aval; bank's guarantee; blank promissory note
<i>II) Investment Credits for permanent working capital</i>	
Credit amount:	minimum of 2 000 000 RSD for legal entities; 500 000 for entrepreneurs maximum of 100 000 000 RSD for small enterprise maximum of 200 000 000 RSD for medium enterprise maximum of 300 000 000 RSD for big enterprise maximum of 5 000 000 RSD for entrepreneurs
Repayment period:	for investment credit up to 6 years for permanent working capital up to 2 years
Grace period:	up to 12 months for investment credits and permanent working capital
Repayment scheme:	quarterly installments
Interest rates :	for investment credit 2.5% annually, if there is guarantee or bank's avalised bill 4% annually in other cases 2.8% for permanent working capital if there is guarantee or bank's avalised bill 4% annually in other cases
The terms for credits:	The right to the credit has a legal entity registered in the Republic of Serbia, that has been operating without a loss in the past two years; The credits are granted for building, construction and reconstruction, adaptation, repairs or purchase of commercial property, industrial facilities, purchase of new or used machinery, as well as for procurement of permanent working capital of the enterprises which are predominantly private or state owned, except public companies and enterprises with the state ownership less than 40%.

Source: <http://www.fondzarazvoj.gov.rs>, Plans and programs of the Fund's activities in 2013 (June 16, 2013)

Based on the data presented in Table 7 it can be concluded that during the period in question of long-term credits of the Development Fund of the Republic of Serbia placed for primary agricultural production and the production and processing of food products in total long-term credits of Fund. The average share was 33% and in the 2010 -2012 or 1/3 of the total long-term credits of the Development Fund of the Republic of Serbia was placed in the agricultural and food industries.

Table 7: Long-term credits of the Development Fund of the Republic of Serbia placed in the agriculture and food industry in the 2010 -2012

Year	Long term credits for primary product. (mil. RSD)	Long term credits for product, food product (mil. RSD)	Long term credits for product, and process. of food product (000 RSD)	Total long term credits for agricult. and processin. of food product (mil. RSD)	Total long term credits of the developm. fund of the Serbia (mil. RSD)	The share of long term credits for agricult. and food process. in total long credits of the developm. fund
2010.	1,2	6.820	-	6.821	15.625	43%
2011.	21,7	4.096	7.000	4.125	15.020	27 %
2012.	592,3	3.749	5.307	4.347	15.000	28%
Total	615,2	14.665	12.307	15.293	45.645	33%

Source: <http://www.fondzarazvoj.gov.rs>. (sajtu pristupljeno 12.09.2013.)

Provincial Fund for the Development of Agriculture was founded by the Assembly of Autonomous Province of Vojvodina in 2001.²⁶ in order to create the conditions needed to encourage the development of agriculture of the Autonomous Province of Vojvodina. The main idea was to allow producers to access the necessary funds in a faster and easier manner.²⁷

In 2011, Provincial Fund for the Development of Agriculture decided to focus its activities and to: (a) encourage the agricultural development in AP Vojvodina; (b) encourage the even agricultural development; (c) improve the competitiveness of domestic agriculture; (d) improve the living standard of the food producers, and to offer safe, healthy and quality food to their consumers at favourable prices; (e) encourage the employment.²⁸ By the end of 2011, Provincial Fund for the Development of Agriculture granted 1 875 credits, placed with the aim to help the

²⁶ Official Gazette of AP Vojvodina, No. 3/01.

²⁷ The Report of the Activities of the Government of AP Vojvodina from 2000 to 2003 p.58

²⁸ Source: <http://www.fondpolj.vojvodina.gov.rs>

agricultural development on the territory of Vojvodina province, with the total amount of 8 063 560.13 euro.²⁹

Based on the data presented in Table 8, it can be concluded that the credits, which had previously been approved Agricultural Development Fund of Vojvodina, characterized by favorable interest rate, the existence of a grace period, but rather short period of credit repayment.

Table 8: The terms of agricultural credits, Provincial Fund for the Development of Agriculture

<i>I) Credit "Reconstruction of irrigation system"</i>	
Credit amount :	1) up to 5.000 EUR; 2) from 5001 EUR to 15.000 EUR;
Repayment period:	1) up to 24 months; 2) up to 30 months;
Grace period:	1) from 9 months (during grace period there is no interest); 2) from 12 months (during grace period there is no interest);
Repayment scheme:	semi annual installments
Interest rate:	1,3% annually
<i>II) Credits for production in closed spaces (greenhouse, hot house) and necessary equipment</i>	
Credit amount:	minimum of 1.000 EUR, maximum of 15.000 EUR;
Repayment period:	up to 36 months;
Grace period:	up to 12 months (during grace period there is no intercalate interest);
Repayment scheme:	semi annual installments
Interest rate:	2 % annually
<i>III) Credits for livestock production</i>	
A) <i>For purchase of basic herd for sheep and goat breeding</i>	
B) <i>For purchase of bee swarms</i>	
C) <i>For purchase of quality calves for fattening</i>	
Credit amount:	A) minimum of 1.000 EUR, maximum of 12.000 EUR; B) minimum of 1.000 EUR, maximum of 5.000 EUR; C) minimum of 5.000 EUR, maximum of 15.000 EUR;
Repayment period:	A) B) up to 18 months; C) up to 12 months;
Grace period:	A) up to 12 months (during grace period there is intercalate interest) B) up to 24 months (during grace period there is intercalate interest)
Repayment scheme:	A) B) semi annual installments C) one-off; after the duration of credit
Interest rate :	A) B) C) 2% annually
<i>III) Credits for planting perennial plants fruit and wine and establishing hail protection</i>	
A) <i>Credit for planting orchards</i>	
B) <i>Credits for planting vineyards</i>	
C) <i>Credits for hail protection nets in orchards and vineyards</i>	
Credit amount:	A) minimum of 1.000 EUR, maximum of 10.000 EUR; B) minimum of 1.000 EUR, maximum of 10.000 EUR; C) maximum of 15.000 EUR;
Repayment period:	A) up to 36 months - berries; up to 24 months -apples; up to 12 months -nuts B) C) up to 36 months;
Grace period:	A) up to 24, 36, 48 months (during grace period there is intercalate interest)

²⁹ Ibid

Repayment scheme:	C) up to 12 months (during grace period there is intercalate interest)
Interest rate :	A) B) C) semi annual installments
	A) B) C) 2% annually
<i>V) Credits for agricultural machinery</i>	
Credit amount:	minimum of 1.000 EUR, maximum of 20.000 EUR; minimal down payment of 15% for power generating machinery
Repayment period:	up to 48 months
Grace period:	up to 12 months (during grace period there is intercalate interest)
Repayment scheme:	semi annual installments
Interest rate :	2% annually
<i>VI) Credits for building and furnishing of storage space</i>	
Credit amount:	minimum of 10.000 EUR, maximum of 20.000 EUR;
Repayment period:	up to 48 months;
Grace period:	up to 12 months (during grace period there is intercalate interest)
Repayment scheme:	semi annual installments
Interest rate :	2% annually

Source: <http://www.fondzarazvoj.gov.rs> , *Plans and programs of the Fund's activities in 2013 (June 16, 2013)*

The Guarantee Fund of Autonomous Province of Vojvodina was founded in December 18, 2003 by the Founding Decision for the Guarantee Fund of Autonomous Province of Vojvodina, and it was registered as The Fund in April 15, 2004.³⁰ The main goal of The Fund is to ensure conditions for providing incentive to development and operations of small and medium enterprises, entrepreneurs and individual agricultural producers on the territory of Vojvodina. With its activities stated, the Guarantee Fund supports: (a) purchase of mineral fertilizers; (b) purchase of new agricultural machinery; (c) the export-oriented programs of small and medium enterprises; (d) female entrepreneurship.³¹

Every year, The Guarantee Fund determines the guarantee potential and then organises its activities in accordance with the limits. Therefore, they use multiplier, which was 2,5 for the period between 2004 to 2007 and in 2010, whereas in 2008 and 2009 the multiplier's value was 2,75. The Guarantee Fund charges the guarantee issue with the commission of 0.5% of the guarantee's value. The smallest amount of the commission is 5000 dinars, one-off and 0.25% upon maturity of each annuity, which is calculated on the remaining debt.³²

³⁰ The Report of the activities of AP Vojvodina, from 2004 to 2007, p.149.

³¹ Source: www.garfondapv.gov.rs , (June 11,2013)

³² Mr Vesna Paraušić, dr Drago Cvijanović: *The Serbian Agriculture-state and banks' programs of financial support from 2004 to 2006*, Institute of Agricultural Economics, Belgrade, p.198.

Table 9: The competitions of The Guarantee Fund of AP Vojvodina for the agricultural development by the end of 2010.

<i>Competition</i>	<i>Effects</i>	<i>Engaged guarantee potential (RSD)</i>	<i>Number of guarantees</i>
Purchase of mineral fertilisers	20 148 tons NPK	334. 053. 488,80	42
Purchase of machinery- tractors	813 units	2. 260 .575 .711,57	715
Purchase of land	307 ha	44. 152. 861,77	86

Source: www.garfondapv.gov.rs , (June 11,2013)

Based on the data presented in the Report on the activities of The Guarantee Fund of Autonomous Province of Vojvodina, by the end of 2010, the participation of the guarantees for the agricultural credits was 84%, while the participation of the above mentioned guarantees in the total amount of the engaged guarantee potential was 91%.³³

5. Conclusion

Based on the research, we can conclude that the credits granted by the commercial banks to the farmers in the previous period have had several things in common: high interest rates, short repayment period, high collateral requirements, and high supporting costs during the credit granting period. The main obstacles to using more credits in domestic agrarian industry are as follows: instability and disorganization of the market of agricultural and food products, uncertain placement, unknown prices of the crops at the time of delivery and inconsistency of the agrarian policy measures. Another limiting factor for a greater placement of funds into the agrarian sector is low level of profitability of the agricultural production, conditioned by low yields, low productivity and accumulation, and price disparity. In domicile conditions, the lack of farmers' trust in banking sector is obvious, as well as the lack of experience in doing business with banks.

The Ministry of Agriculture of the Republic of Serbia since 2004. began with the granting short-term and long-term credits, whose terms were more favorable than those of commercial banks in order to support the development of the agricultural credits, or assistance to agricultural producers to "build a credit history." The original source of credit funds was the agricultural budget, and credits should be approved by the Development Fund of the Republic of Serbia, as well as

³³Source: <http://www.garfondapv.gov.rs> , Bulletin of the Activities of the Guarantee Fund of APV, (June 11, 2013)

commercial banks. Credit users might have to be a registered farms. The Ministry has, since 2011, has changed the way of support, and the new conditions of agricultural budget to co-subsidize only the interest on agricultural credits. However, it is uncertain whether this method of support to agriculture to continue because of the current 2013, although he made a decree that provided that the agricultural budget set aside 500 milion for lending to agriculture, its implementation has not been carried out.

Therefore, based on the research presented, we can also conclude that the bank credit in domicile conditions, is an extremely unfavourable source of agricultural financing, unlike the credits granted by specialized state institutions. These credits have extremely favourable interest rates, but they also have a very short repayment period, grace period and the amount limitations. Thus, it is necessary to engage more state funds in agricultural credit granting. Credits for agricultural production by commodity bills as security, is an innovation in the domestic credit market. This method of financing is more advantage ous than conventional bank credits, primarily in terms of the interest rate. The reason for this is the fact that the collateral for these credits, commodity bills-quality short-term securities, but also to support this credit line respectable financial institutions Compensation Fund of the Republic of Serbia and the EBRD.

References

1. AIK Bank leaflet, May 2013
2. Božić D., Bogdanov N., Ševarlić M., (2011), *Economics of Agriculture*, University of Belgrade, Faculty of Agriculture.
3. Official Gazette of AP Vojvodina No. 3/01.
4. Official Gazette of the Republic of Serbia, No.20/92 and 107/05.
5. Paraušić V., Cvijanović D., (2007), *The Serbian Agriculture-state and banks' programs of financial support from 2004 to 2006*, Institute of Agricultural Economics, Belgrade
6. Pejanović R., (2013), *Essays on Agrarian and Rural Economy*, University of Novi Sad, Faculty of Agriculture
7. Pejanović R., Njegovan Z., (2011), *Principles of Economy and Agrarian policy*, University of Novi Sad, Faculty of Agriculture
8. Pejanović R., Njegovan Z., (2011), *Rural development and local economic development of AP Vojvodina*, Monograph, University of Novi Sad, Faculty of Agriculture
9. Press release Credit Agricole Bank Serbia, June 4, 2013

10. Radović G., (2009), MSc Thesis: *Models of Financing Agriculture in the period of Transition*, University of Novi Sad, Faculty of Economics, Subotica
11. Radović G., (2009), *Support of the State with Regard to Financing Agriculture*, *Agroekonomika*, No.41-42
12. Radović G., (2010), *Securities in Financing Agriculture*, *Agroekonomika*, No.45-46
13. Radović G., (2013), *Banks offer credit*, "Poljoprivrednik" (Magazine of Agriculture), No. 2512, June 14, 2013
14. Regulation on the Register of Agricultural Holdings, Official Gazette of the Republic of Serbia, No. 45/2004.
15. Source: Banca Intesa, Serbia www.bancaintesa.rs
16. Source: Credit Agricole, Serbia www.creditagricole.rs
17. Source: Ministry of Agriculture, Forestry and Water Management of the Republic of Serbia www.minpolj.gov.rs, (10.06.2013)
18. Source: ProCredit Bank, Serbia www.procreditbank.rs
19. Source: Provincial Fund for the Development of Agriculture www.fondpolj.vojvodina.gov.rs
20. Source: The Development Fund of the Republic of Serbia, www.fondzarazvoj.gov.rs,
21. Source: The Guarantee Fund of Autonomous Province of Vojvodina www.garfondapv.gov.rs
22. The Report of the Activities of AP Vojvodina, from 2000 to 2003