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CONTENT

ECONOMIC SCIENCES

Matrix scheme of data aggregation based on three-level fuzzy classifiers is based on the formula:

$$g = \sum_{i=1}^{N} p_i \sum_{j=1}^{3} \alpha_j \mu_{ij}(x_i)$$

where αj are nodal points of the standard classifier (centers of gravity of terms), pi is the weight of the i-th factors in the convolution, μij (xi)` is the value of the membership function of the j-th qualitative level relative to the current value of the i-th factor

The value of g is then recognized on the basis of a standard fuzzy classifier, according to the specified membership functions.

If the linguistic variable "BR (bankruptcy risk)" is described by a term-set of five terms: (G1 – "BR very low"; G2 – "BR low"; G3 – "BR medium"; G4 – "BR high"; G5 – "BR very high"), we get a standard five-point [0,1] – classifier.

Finally, if the linguistic variable "BR" is described by a term-set of two terms (G1 – "BR low"; G2 – "BR high"), we obtain the simplest binary classifier.

Systems of multipoint classifiers allow us to calculate a comprehensive assessment of the risk of bankruptcy of the enterprise by rationing estimates and aggregating them on the basis of matrix schemes.

Results

A study of the risk of bankruptcy of Open Society "Donskoye" on the basis of financial statements for 2016 – 2017 was carried out. At the first step, 6 models with two terms were aggregated using two-point classifiers; at the second step, 5 models with three terms were aggregated; at the third step, 2 models with five terms were aggregated. Finally, at the fourth step, the final comprehensive assessment of bankruptcy risk is built on the basis of three groups of models, using standard three-point classifiers. It was believed that all models of equilibrium (weights can be varied).

Discussion

Thus, the final aggregated estimate based on the considered models has a numerical value of 0.31 (in accordance with the theory of fuzzy sets, it can be considered that it is likely that the expert will refer the enterprise to the corresponding term). The value of the membership functions:

$\mu(0,31) = \mu_2(0,31) = 0,45$; $\mu(0,31) = \mu_1(0,31) = 0,55$.

Thus, we can assume that the company can be assigned to the first term ("RB low") with a probability of 0.45 and to the second term ("RB average") with a probability of 0.55.

Therefore, the analysis of financial condition of the enterprise on the basis of thirteen different models allowed to calculate the aggregated value giving an assessment of risk of bankruptcy on an interval [0;1]. Conventionally, this value can be considered as the risk of bankruptcy, calculated taking into account the views of thirteen independent experts.

Conclusion

The technique, the novelty of which is the ability to aggregate the results of the analysis of the risk of bankruptcy of the enterprise, resulting from the use of a complex of different models of bankruptcy. In this case, models can use different criteria and classify the state of the enterprise in different ways. As follows from the description of the methodology, the complex of models used may vary depending on the objectives of the study.

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MEASURES TO INTENSIFY THE ATTRACTION OF FINANCIAL RESOURCES IN THE AGRICULTURAL SECTOR OF UKRAINE

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Abstract

The article identifies measures to intensify the attraction of financial resources in the agricultural sector of Ukraine. The credit products taking into account features of all categories of the enterprises of agrarian and industrial complex are characterized. The conditions of overdraft and credit lines in the banks of Ukraine for agricultural enterprises are given. The conditions for granting loans by banks to agricultural enterprises are proposed. The main reasons for holding back the development of lending to agricultural enterprises have been identified. The priority directions of the credit system of agro-industrial enterprises are singled out. Features of mezzanine financing are found out.

Keywords: agricultural enterprise, financial resources, crediting, overdraft, credit line, mezzanine financing.

Formulation of the problem. To provide agro-industrial enterprises with financial resources, it is necessary to solve a number of interrelated tasks that will form a credit mechanism to support enterprises – an improved mechanism for their bank lending.

The objective need to use credit relations in the agricultural sector of the economy is associated with the peculiarities of agricultural production, the uneven movement of working capital of enterprises, significant deviations of the need for working capital from their actual availability.

Analysis of recent research and publications. The issue of attracting financial resources to the agricultural sector of Ukraine is the object of research by scientists, including: O. Abakumenko [1], L. Alekseenko [2], O. Art'emova [3], R. Bezus [4], V. Zbarsky [5], S. Kisil [7], Yu. Korneeva [8], Yu. Lupenko [9], O. Luta [10], M. Mykolyshyn [11], E. Petrikova [22], I. Furman [24] and others. These works provide a significant theoretical, methodological and methodological basis for the study of the problems of attracting financial resources in the agricultural sector of Ukraine. However, the complexity and scale of these processes makes it possible to find unexplored aspects of this problem and continue scientific research.

Formation of research goals. The purpose of the article is to determine measures to intensify the attraction of financial resources in the agricultural sector of Ukraine.

Presenting main material. An important role in the development of an effective mechanism of bank credit support for agribusiness should belong to government agencies, which involves the consistent implementation of a set of specific tasks.

In order to solve the problems associated with lending to the agricultural sector, it is necessary to improve or take additional measures to support enterprises:

– reduction of terms of consideration of applications for granting state support to agrarian business enterprises to comparable terms of consideration of applications by banks;

– support for priority sectors of the agricultural sector, which provide the greatest social, economic and budgetary effect;

– free financing of advanced, effective and socially significant projects (in the form of grants);

– granting benefits to banks by increasing the portfolio of loans to enterprises.

The stabilization of Ukraine's banking system has made it possible to focus the efforts of financial institutions on lending to agribusiness for current and investment needs. The prospect of lending to agrarian business is the interaction of instruments of state regulation and self-regulation of the agrarian credit market. The state must now take on the role of organizer of the future full-fledged system of lending to agribusiness, separate from direct state support for the agricultural sector, which operates on the market principles of cooperation between the banking sector and agriculture. The modern system of agricultural credit should be organized by combining various credit products that take into account the characteristics of all categories of agricultural enterprises.

Given the needs of customers in the agricultural sector, which is characterized by a pronounced seasonality of business, banks offer such a banking product as an overdraft. An overdraft is a stock of funds provided by a bank to a client within the established limit in the event that his account does not have enough own funds to make payments.

Advantages of overdraft:

– elimination of time gaps between the receipt of funds on the current account of the client and the implementation of costs for financing business activities;

– prompt payments;

– ease of obtaining credit funds – payment orders are made without submitting additional documents (applications, letters) to the bank;

– the opportunity to obtain funding, including without collateral;

– the possibility of increasing the funding limit subject to an increase in turnover on current accounts opened with the bank;

– repayment of interest for the use of overdraft is automatic due to the receipt of funds;

when repaying an overdraft on the day of the debt, interest for the use of credit funds is not paid.

Taking into account the needs of agro-industrial clients working in the field with a pronounced seasonality of business, banks develop and offer overdrafts, usually with a maturity of 30 days. Currently, Raiffeisen Bank Aval JSC has developed a banking product – Overdraft 90 days, for which the maturity of the overdraft has been increased from the traditional 30 to 90 days.

In the table 1 shows the conditions of overdraft in the banks of Ukraine for agricultural enterprises.

Table 1

Terms of overdraft in banks of Ukraine for agricultural enterprises, 2019

Parameter	Oschadbank	Raiffeisen Bank Aval	ProCredit Bank	IndustrialBank
Term	Up to 2 years with mandatory monthly full repayment of debt	Ability to use the loan for 90 days without repayment of the loan amount; term of the credit agreement – 36 months	Up to 2 years with obligatory monthly full repayment of debt	From 1 month to 1 year with obligatory monthly full repayment of debt
Limit	Up to 50% of the average monthly receipts on current accounts	Maximum limit – UAH 3 million	Up to 50% of the average monthly income on current accounts	30-85% (maximum limit up to UAH 500 thousand)
Interest rate,%	Per annum 1-7 days – from 17.5 8-14 days - from 19.5 15-30 days – from 21.5 More than 30 days – from 23.5	Without collateral – 19-21 With collateral – 19	Fixed	From 23
Commission,%	1.0-1.5 of the amount of the overdraft limit when concluding the agreement	1,0	1.0 of the amount of the overdraft limit when concluding the agreement	1.0 of the amount (limit) of the loan, the minimum amount is UAH 1,500
Collateral	Real estate and movable property, working capital, blank	Collateral, blank	Collateral, blank	Collateral, blank

Source: Compiled for [14; 15; 16; 17]

The use of overdraft allows the borrower to make timely and uninterrupted payments with partners, provide financing for term (urgent) commercial agreements, rational use of credit funds, as well as optimize the cost of interest payments.

Another banking product is a credit line. A credit line is a form of lending in which, within the established limit, the loan is issued and repaid in several parts (tranches), in the most convenient mode for the borrower's business. The credit line can be renewable or non-renewable. The latter provides that in case of partial or full repayment of the loan, the borrower may reobtain the loan within the established limit and term of the loan agreement Purpose and terms of crediting:

– short-term credit lines (up to 1 year) - are opened to finance short-term needs that arise in the borrower;

– long-term credit lines (over 1 year) - are opened for the formation of fixed assets, payment for equipment, financing of capital investments, reconstruction and modernization of production, capital construction, etc.

Advantages of credit lines:

– the ability for the client to independently manage their financial flows;

– the ability to repeatedly choose and repay loans during the term of the loan agreement, within the established credit limit;

– credit line is provided at any time;

– with active use of the credit line (repayment in the presence of free funds) the total cost may be cheaper than the loan;

– flexible comprehensive approach to collateral, the possibility of acceptance as collateral for assets acquired under the credit line;

– the possibility of establishing an individual repayment schedule for each issued tranche, taking into account the specifics of the business and the specifics of the project being credited.

Terms of lending on credit lines in the banks of Ukraine for agricultural enterprises are given in table. 2.

Also relevant is the proposal from «IndustrialBank»: «Credit line to replenish working capital «Agro – Perspective». Intended use – financing of the sowing and harvesting company, creation of inventories, financing of operating expenses and other expenses related to current activities for a minimum amount of UAH 100,000; interest rate – from 20% per annum; one-time commission fee for drawing up a loan agreement 0.3% of the loan amount; loan term – up to 18 months; collateral – real estate, equipment, machinery, agricultural products, the guarantee of the founders. Goods in circulation and other types of property can be accepted as additional security [17].

Examining the credit programs of banks aimed at replenishing the working capital of agricultural enterprises, it can be noted that in general the conditions for their use can be met by not all enterprises. This applies to both the use of resources and the fulfillment of security requirements. If in terms of loan fees, banks can not offer a fee lower than the fee for borrowed resources, then in terms of collateral there are additional issues.

Table 2

Terms of lending on credit lines in banks of Ukraine for agricultural enterprises, 2019

Parameter	Oschadbank, Ukrgasbank	Raiffeisen Bank Aval, OTP Bank, Credit Agricole Bank	PUMB	Bank Credit Dnipro
Term	Up to 3 years mandatory annual full repayment of the entire loan or each individual tranche at least once every 12 months	Up to 18 months, up to 12 months under a seven-year framework agreement	Up to 36 months (with annual repayment and renewal of the limit)	Up to 18 months
Limit	Up to 60.0% of the costs of the campaign for sowing, care and harvesting	Maximum – 500 thousand euros		Up to 70.0% of total costs per season
Interest rate,% per annum	21.25-24.0 in UAH; from 12.0 in US dollars; from 12.0 in euros	19,0-21,0	From 23.5	From 21 in hryvnia, payment during the period of receipt of proceeds from the sale of the harvest
Commission,%	From 0.2 per month	One-time 0.99-1.0 of the amount of the established limit	0.68 – for setting the limit for the first year of financing; 0.50 – for setting a limit for each subsequent year of funding	
Surety	Real estate and movable property, property rights, surety	Agricultural machinery and equipment, cars and trucks; real estate; the borrower's own assets; as additional collateral – cattle, grain, harvest of the future	Property rights to the deposit of an individual or legal entity, real estate, vehicles, equipment, agricultural machinery, exchange goods	Future harvest and machinery

Source: Compiled for [13; 14; 15; 18; 19; 20; 21]

Some of them are related to the type of collateral (the best collateral for most banks is liquid assets), others – with the need to assess and insure it. Of course, by setting collateral requirements, banks seek to minimize the risk of the transaction and reduce the cost of forming reserves. It is in this part that there are inconsistencies between the available opportunities to use certain assets by agricultural enterprises as collateral and non-recognition of loans by the NBU as such, for which no provision is required.

Currently, in addition to the generally accepted types of property and property rights, double warehouse certificates and future harvests can be used as credit collateral when lending to agricultural enterprises.

In particular, Ukrgasbank, in accordance with the memorandum concluded with the Ministry of Economic Development, Trade and Agriculture of Ukraine, is a bank participating in state compensation programs for enterprises of the agro-industrial complex within:

– The procedure for using the funds provided in the state budget for partial compensation of the cost of agricultural machinery and equipment of domestic production (Resolution of the Cabinet of Ministers of Ukraine of 01.03.2017 № 130);

– The procedure for using the funds provided in the state budget to provide financial support for the development of farms (Resolution of the Cabinet of Ministers of Ukraine of 07.02.2018 № 106);

– The procedure for the use of funds provided in the state budget for state support of livestock development and processing of agricultural products (Resolution of the Cabinet of Ministers of Ukraine of 07.02.2018 № 107);

– The procedure for using the funds provided in the state budget for financial support of measures in the agro-industrial complex by reducing the cost of loans (Resolution of the Cabinet of Ministers of Ukraine of 29.04.2015 № 300).

In the branches of Ukrgasbank clients can apply for state support for the following programs:

For agricultural producers:

1. The program of partial compensation of the cost of agricultural machinery and equipment of domestic production in the amount of 25% (for farms in the

amount of 40%). The tariff for crediting funds to the client's account from outside the system of Ukrgasbank is applied as compensation under state compensation programs.

For farms and agricultural service cooperatives:

2. The program of partial compensation of the cost of seeds of agricultural plants of domestic production purchased from the subjects of seed production of the basic category, certified in the amount of 80% of the value of seeds sown in the current year, but not more than UAH 80,000. on one farm. The tariff for crediting funds to the client's account from outside the system of Ukrgasbank is applied as compensation under state compensation programs.

3. The program of partial reimbursement of the costs associated with the provision of advisory services in the amount of 90% (not more than UAH 10,000). The tariff for crediting funds to the client's account from outside the system of Ukrgasbank is applied as compensation under state compensation programs.

4. The program of partial compensation of the interest rate on the loan attracted in UKrgasbank. Provided on loans for up to one year to cover production costs (up to UAH 500 thousand) and for up to three years for the purchase of fixed assets of agricultural production, the implementation of costs associated with the construction and reconstruction of agricultural production facilities (up to UAH 9 million).

For enterprises in the livestock industry:

5. Program of partial compensation for the cost of facilities financed by bank loans in the amount of 25% of the actual costs incurred for the construction and / or reconstruction of livestock farms and complexes for keeping cattle, pigs, poultry (including waterfowl and turkeys), milking parlors, enterprises for processing of agricultural products (milk, meat, animal by-products belonging to the II and III categories), including the cost of equipment according to the design and estimate documentation up to 5 years in the amount of up to UAH 500 million.

For business entities of the agro-industrial complex:

6. The program of partial compensation of the interest rate on the attracted loans in Ukrgasbank. Provided on loans in national currency (short-term (renewable and non-renewable) loans (except overdrafts) to cover production costs and medium-term and long-term loans for the purchase of fixed assets of agricultural production, the implementation of costs associated with the construction and reconstruction of agricultural production facilities), as well as for the construction and reconstruction of production facilities (including storage for vegetables, fruits and berries) [18].

We have proposed the following conditions for banks to provide loans to agricultural enterprises.

For up to 3 years:

– purchase of young farm animals for fattening;

– formation of primary working capital within the implementation of the investment project;

– implementation of costs for connection to engineering networks;

– registration of production facilities;

– other current goals.

For up to 4 years:

– purchase of breeding farm animals;

– construction of roads and entrances to production and storage facilities;

– purchase of agricultural machinery, equipment, inventory for production and processing of agricultural products.

For up to 7 years:

– purchase of land plots from the composition of agricultural land (subject to lifting the moratorium on land purchase and sale).

For up to 8 years:

– construction/reconstruction/modernization of industrial and warehouse buildings, premises, engineering networks, barriers, structures.

Therefore, state support should become an integral condition for the development of agriculture both in the region and in the country as a whole, as almost all agricultural producers are currently experiencing problems caused by the financial crisis, which disrupted the stability of their activities.

The modern system of agricultural credit should be organized by combining various credit products that provide for the characteristics of all categories of agricultural producers, both large agricultural enterprises and medium-sized peasant (farmer) farms and small farms.

The main reasons for hindering the development of lending are the following:

– imperfection of legislative mechanisms;

– high level of costs of banks to provide services;

– no guarantees of loan repayment;

– high loan price;

– lack of a reliable borrower.

The following priority areas of the credit system of agricultural enterprises are identified, namely:

– creation of a national lending system that combines government regulation and private-cooperative financial resources;

– lending to agricultural enterprises at the expense of the budget and private business;

– development and use of non-standard models (schemes) of crediting of agro-industrial enterprises;

– providing credit resources to agricultural enterprises at a lower interest rate, taking into account the profitability of agricultural production, as well as taking into account the peculiarities of the circulation of funds in agriculture;

– increase in the volume of medium- and long-term loans, including mortgage loans;

– state regulation of soft loans in accordance with the needs of the current economic situation.

In order to develop banking competition in the field of lending to agricultural enterprises, government agencies need to develop a system of tax benefits for those banks that provide for special lending conditions for agricultural enterprises. For example, the abolition or reduction of the corporate income tax rate on loans granted to agricultural enterprises. This will allow to develop the direction of financing of agro-industrial enterprises and to promote similar products on the market of credit services.

Currently, various credit mechanisms are used for enterprises. In addition, to stimulate the activity of banks in lending to the agricultural sector and at the same time to ensure the repayment of «agricultural» loans, banks must use a reliable structure of collateral for loans.

In 2020, in accordance with the requirements of the NBU, banks will undergo stress testing, which is part of the annual assessment of their resilience. Particular attention from the regulator will be paid to assessing the quality of assets. In this regard, we propose to banking institutions to apply the developed methodology for determining the reliable composition of collateral for loans in the agricultural sector (table 3).

Table 3

Methods for determining reliable collateral for the loan depending on the type of collateral

№	Type of collateral	Loan amount:		Note
		>30% residual value of the property	<30% residual value of the property	
1.	Basic support			
1.1	Real Estate	4 points	4 points	Accepted as collateral subject to registration of the mortgage agreement with the registering authority
1.2	Transport, new equipment	3 points	3 points	Accepted as new Previously unused property, no more than 2 years have passed since its issue
1.3	Transport, used equipment	2 points	2 бpoints	Owns property that does not belong to paragraph 1.2 of this table
1.4	Securities	3 points	4 points	Securities admitted to circulation on the securities market are accepted as collateral
1.5	Farm animals	1 point	2 points	It is accepted on condition that animals are considered on the balance of the enterprise as fixed assets
1.6	Inventory		1 point	The share of inventory in the structure of collateral should not exceed 60%
1.7	Share in the authorized capital	1 point	1 point	Accepted as collateral if the coefficient of financial stability of the borrower during the last two reporting dates was not less than 0.6
1.8	Pledge of property rights		1 point	
2.	Collateral			
2.1	Guarantees of state bodies	4 points	4 points	
2.2	Guarantees of banking institutions	3 points	4 бали	Provided that the rating of the banking institution is not lower than A ++
2.3	Guarantees 0 business owners and/or final beneficiaries	3 points	3 points	Mandatory in the absence of other types of warranties
2.4	Guarantee on the director and/or chief accountant of the borrower		2 points	
2.5	Guarantee on third parties		1 point	

Comments to the table. 3:
4 points – very high reliability of the form of security;
From points – high reliability of the form of maintenance;
2 points – average reliability;
1 point – low reliability.

The share of farm animals in the supply structure should not exceed 50%.

In practice, there may be cases of insufficiency of one collateral to secure loan obligations. In this case, the borrower offers several options. For example: equipment and inventory. Thus, we propose to apply in the work of the bank a matrix model for determining the reliable composition of collateral for the loan (table 4).

Table 4

Matrix model for determining the reliable composition of collateral for the loan

Reliability of provision	4 points	3 points	2 points	1 point
4 points	Allowed	Allowed	Allowed	Allowed
3 points	Allowed	Allowed	Allowed	Allowed
2 points	Allowed	Allowed	Allowed	Not allowed
1 point	Allowed	Allowed	Not allowed	Not allowed

If the collateral for one loan is three collateral objects or more, which is quite rare, then to determine the reliable structure of collateral is as follows: one object of mortgaged property must have at least 1.5 points.

Keep in mind that all collateral must be liquid (their term should not exceed 180 calendar days) and insured with a bank-accredited insurance company.

Guarantees and sureties are an additional way to ensure the fulfillment of loan obligations, which, according to the methodology, must be a total of at least 3 points. But it should be borne in mind that the total amount of one type of guarantee / surety is not taken into account, ie if the loan offers a surety, the total score will be 1, not 2.

The choice of funding sources depends on certain factors, such as: the size of the enterprise, industry and field of activity, technological features, the specifics of products, the relationship with the markets, and so on.

It should be noted that any way to attract credit resources, even budget or subsidized, must be justified, and the company must be solvent. The choice of sources of financial resources and justification of their effectiveness should be based on comparative analysis, for example, proposals of banks to provide investment credit on several main criteria: interest rate, additional payments for opening a credit line or maintaining an account, collateral, collateral ratio, additional conditions (insurance, assessment, surety).

For the effective development of the credit system in the agricultural sector it is necessary to soften the conditions of bank lending to businesses, which is experiencing a high percentage burden compared to other sectors of the national economy.

Acceleration of service, logistics, improvement of credit products, complex decisions, including taking into account individual features of regional clients can promote increase of competitiveness of bank crediting. In this regard, the problem of stimulating the involvement of regional banks in lending to agricultural enterprises, better adapted to regional clients, the peculiarities of doing business in the region. The development of mutually beneficial cooperation between banks and businesses is possible on the basis of the development of lending programs, a variety of collateral, the formation of tariff policy that takes into account the real risks. At the same time, in order to provide financial resources, various forms of lending to agricultural enterprises must be developed.

One such type is mezzanine funding. Mezzanine financing is a hybrid form of financing that combines the characteristics of different forms of financing, and involves not only a combination of own and borrowed sources of financing, but also a combination of credit and equity financing, as well as the use of securities and / or derivatives in the process implementation of the agreement [11].

The term «mezzanine financing» is used in world practice to denote investment schemes, which occupy an intermediate position between the direct debt financing of the company and investment in its capital.

This is a relatively new financial instrument, which began to be used in developed countries only in the 70-80s of the XX century to finance agreements on the acquisition of companies. The first users of this mechanism were insurance companies, credit and savings associations and specialized investment funds. Later, this mechanism extended to the financing of business development, share capital restructuring and other areas where there were difficulties in obtaining a bank loan. The mezzanine financing mechanism is especially actively used during economic crises, which was especially noticeable during the financial crisis of 2007-2008. As mezzanine investors, as a rule, are pension and investment funds, insurance companies that accumulate investors' funds, specialized banking structures. The main goal of mezzanine investors are stable second-tier companies that have proven their viability. That is, mezzanine financing is a method of financing projects in which the investor provides funds in the form of debt financing with the simultaneous purchase of an option to purchase shares of the borrower or SPV of the company in the future at a certain price, possibly under certain conditions.

In essence, mezzanine financing involves two parts that give a synergistic effect: debt and partial, with the debt part is always present, and the partial part may not be implemented. The debt part of the mezzanine can be represented by both secured and unsecured loans, as well as subordinated loans, which provide for repayment after satisfaction of claims under other loan agreements or bonds. In most cases, primarily due to the prevalence of bank lending, the debt part of the mezzanine is represented by a bank loan, but instead it can be a loan from third parties, which will also correspond to the essence of mezzanine financing. At present, banks, as the main creditors of domestic producers, mainly issue loans secured by tangible assets, at the expense of future harvests or output. Therefore, it is advisable to expand lending opportunities through the mechanism of mezzanine financing [22].

Most often, mezzanine financing involves obtaining credit resources for collateral. In this case, the collateral may be primarily such assets of agricultural enterprises as real estate, machinery, equipment, much less securities. The specific fixed asset of agricultural enterprises - cattle - will almost never be used as collat-

eral due to its inherent high risks, and land, on the contrary, is one of the most desirable assets for creditors to ensure the return of borrowed resources.

In essence, mezzanine financing schemes occupy an intermediate position between a bank loan and direct investment in the company's capital. Therefore, we consider it appropriate when implementing mezzanine financing to take into account:

– first, the presence of mezzanine debt. Lack of collateral or a negative assessment of the debtor's condition does not allow him to count on a loan, and attracting direct investment, due to certain circumstances, has become impractical for potential borrowers. Mezzanine debt, compared to direct investment, may have collateral, but it is usually weaker than a bank loan. The required return on a mezzanine lender is lower than for direct investment, but higher than that of banks. In essence, mezzanine financing schemes involve the use of various financial instruments, including, such as subordinated debt, warrants for shares or a loan "with profit participation". Repayment of mezzanine loans is mainly carried out at the expense of funds received from the sale of assets and shares of the debtor, and for loans, repayment is financed using the money supply obtained in the course of the main activity. Mezzanine financing is carried out exclusively with the use of instruments, which are determined by the results of negotiations between the investor and the borrower;

– secondly, a certain part of the mezzanine must be represented by such a financial instrument, which will give its owner the right to purchase shares of the agro-industrial company in certain circumstances and / or at a certain time (for a certain time) at a predetermined price. Options (as derivative financial instruments) and options of the issuer (as securities) can act as such financial instrument. As a rule, it depends on a set of circumstances, external and internal factors and individual specificity of each separately considered enterprise of agrarian sphere;

– thirdly, financial instruments are mixed within mezzanine financing not just by private subscription, but, in fact, in a limited way: they are issued and transferred to one person, which combines the functions of creditor and investor. It is believed that such tools are completely illiquid. However, this can be questioned, because both the option and the issuer's option, respectively, are a derivative financial instrument and a security, in theory, can circulate freely in the financial market. Of course, mezzanine financing does not imply that the creditor-investor will seek to sell the financial instrument belonging to him, but nevertheless, this cannot be ruled out;

– fourth, the average debt repayment period is 5-7 years, and at the beginning of the credit period there is a deferral of payment of the debt, which allows agricultural enterprises to invest in business development, rather than give them to repay the loan. This is extremely important due to the specifics of agribusiness, which requires constant serious replenishment of not only fixed assets but also current assets. In the future, when the company has reached a relatively stable performance, loan payments will increase just by repaying the body of the debt. Mezzanine does not involve creditors-investors in the management of the enterprise, which receives resources, which can also be its competitive advantage if the owners of the enterprise want to manage it exclusively independently.

Thus, the debt part of the mezzanine is always present, but the share may be absent if it is impractical for the creditor-investor to exercise the rights under the option or the issuer's option. All other things being equal, it is interesting for a lender-investor to use a financial instrument under the mezzanine financing mechanism, if the lent enterprise successfully develops and in the long run will bring more income than from the loan. It is also rational to exercise the option in a negative situation when the borrower does not fulfill its obligations, and thus try to at least partially compensate for the lost benefit. In this case, the investor buys (and actually pays) shares, exercising the option, and the money transferred for payment goes to the account of the agricultural business, which in turn at the expense of the funds repaid the debt to the investor.

Features of mezzanine financing:

– interest on the use of credit (or loan) – can be both floating and fixed;

– payment of the principal amount of debt – can be made both gradually and in full at the end of the term of the loan (loan);

– income received from equity participation in the capital of the enterprise. This income will be represented by dividend payments and / or the exchange rate difference between the sale price of the share and the purchase price [8].

All other things being equal, mezzanine is more expensive compared to purely debt financing, but cheaper compared to equity financing. This is what attracts agricultural enterprises. The creditor-investor bears increased risks in the absence of collateral for the loan or loan, as well as in the case of a subordinated loan, and therefore expects a higher return in the future, which can provide not only a higher interest rate on the loan (loan), but also the possibility of equity participation in the enterprise.

Thus, the mezzanine financing mechanism provides quite flexible conditions and can be applied to various operations in the agribusiness, ranging from the development of the innovative component of agro-industrial clusters to large mergers and acquisitions. It is obvious that this tool is attractive for large forms of management, including agricultural holdings. This tool can also be adapted and used for farms, private farms, family farms, sole proprietors, etc.

Mezzanine financing is of interest to those lenders-investors who are not too risky to engage only in venture capital, but also not so conservative as to focus only on government securities and bank deposits. Lenders-investors who use the mechanism of mezzanine financing in their activities are willing to bear risks much higher than when opening bank deposits, but significantly lower than with venture capital and speculative transactions in the market of derivative financial instruments. It should also be noted that the mezzanine financing mechanism allows lenders-investors to vary their actions under the influence of changes in systematic and non-systematic risks. All this makes mezzanine

financing attractive for private investors willing to invest in agricultural development, to finance innovative initiatives of agro-industrial clusters and wishing not only to diversify their investments, but also to reduce the high risks inherent in agriculture without losing potential profitability.

The main differences between this financial instrument and other ways of raising capital are the following:

– amount of funding. In modern practice, mezzanine financing is provided in relatively small amounts (from 10 to 30% of the total project cost), while conventional lending can cover up to 80% of the total project volume (depending on the characteristics of credit policy, methods of analysis and assessment of creditworthiness , risk management methods);

– sources of repayment. In ordinary lending, debt repayment occurs through the receipt of funds from operating activities. The source of repayment of mezzanine loans is mainly funds received from the sale of company assets or shares previously financed by the bank;

– source of borrowed funds. Borrowing, takes place on the open market, Mezzanine financing is the result of negotiations between investor and borrower;

– liquidity. Promissory notes, bonds, pools of standard loans, etc. liquid instruments that are in free circulation in the financial market. Mezzanine financing instruments are absolutely illiquid, cannot be sold on the financial market, which provides a certain commitment of the investor to the successful implementation of the project.

Mezzanine financing provides the borrower with a number of advantages over a bank loan, in particular:

– the possibility of obtaining further financing in case of insufficient security or non-compliance with the financial requirements for attracting a standard bank loan, as well as improving the conditions for the available opportunities available on the market;

– increasing the attractiveness of the borrower for banks, as the principle of diversification of invested funds is implemented;

– the opportunity to defer the payment of part of the income of the mezzanine investor until the full repayment of the debt and to deduct the costs of raising and servicing from taxable income;

– less equity blur and, consequently, lower cost of capital for the company as a whole, especially for companies with high growth potential;

– maintaining «real» owners control over the company, because for a mezzanine investor the most important aspect is to obtain the expected return on investment than earning the maximum price of shares of the object of investment. A mezzanine investor is less inclined to actively participate in management, although he has the right to make key decisions in the form of approval of agreements, as well as to control the activities of the borrower.

The advantages of using this financial mechanism to obtain money include the fact that the mezzanine will be especially attractive for agricultural enterprises that do not want to become public companies, but want to attract resources from outside not only by increasing the debt burden. Also, mezzanine financing avoids significant «erosion» of capital.

In Ukraine, mezzanine financing can be developed either on the basis of using the resources of state-owned banks, or launch a program with the support of international institutions (EBRD, European Investment Bank) through the State Innovative Financial and Credit Institution.

Banks also take part in the development of mezzanine financing by creating specialized subsidiaries. For example, one of the world's largest banks, Goldman Sachs, has established five mezzanine funds since 1996, the latter amounting to $ 13 billion. and provides funding from $ 250 to $ 800 million, ie the fund's strategy is focused on large corporate clients.

In France, Crédit Agricole has set up two mezzanine funds since 2002, which managed € 140 million at the end of 2010. These funds made 34 transactions, and the IRR scale was 20.7%, which significantly exceeds the income from the usual active operations of the bank in the field of lending [25].

In Russia, in 2011 the first mezzanine fund was established by the EBRD and NOMOS-Bank in the amount of $ 250 million [23].

Domestic banks can also implement mezzanine activities based on the creation of specialized funds, given the entry into force in 2014 of the new version of the Law on Mutual Investment Institutions.

Thus, banks can provide loans based on the establishment of subsidiary venture funds, but only to legal entities in which such a venture fund is involved (not less than 10% of the authorized capital), which significantly limits the fund's mezzanine financing capabilities.

In accordance with the new legislative changes, banks may establish qualification funds for the class of credit assets, providing mezzanine financing.

For the development of mezzanine financing in Ukraine it is necessary to improve the regulatory framework, including the adoption of bylaws by the National Commission on Securities and Stock Market to clearly explain the possibility of using a symbiosis of debt financing with possible entry into equity when creating credit qualification funds. In addition, Ukraine still does not have a legal definition of the nature and order of circulation of warrants, which are one of the necessary elements for the implementation of some mezzanine financing schemes..

Thus, in modern conditions, the mechanism of mezzanine financing: first, provides additional potential opportunities to address the issue of state financial support for agricultural producers of various forms and profiles of management; secondly, this mechanism should be applied to economic entities of different levels and organizational and legal forms of management, in particular agro-industrial clusters.

The use of all existing opportunities and accumulated successful practices of mezzanine financing corresponds to the concept of innovative development of the agricultural sector, its modernization and further development.

Conclusions. Bank loans are not able to fully meet the needs of agricultural enterprises in credit resources;

mainly bank loans are issued for short- and medium-term periods; regulation of credit provision of agricultural enterprises is ineffective, and state support is insufficient; unsatisfactory volumes of credit resources in the agricultural sector due to strict conditions and high interest rates.

Intensification of bank lending to agro-industrial enterprises requires further improvement of the regulatory framework for bank lending; simplification of the procedure for obtaining a bank loan for agricultural enterprises; restoration and improvement of the mechanism of cheaper loans to agricultural enterprises; application of economic incentives to commercial banks that lend to the agricultural sector of the economy; application of new forms of bank lending guarantees; stimulating the development of property insurance, financial and business risks in the agricultural sector; reduction of risks of non-repayment of credit funds, namely the provision of benefits to those agricultural enterprises that have several sources of income, ie engaged in diversified activities; more active provision of credit support to agro-industrial formations that have a full cycle of production and sales.

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