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## **FINANCING OF THE AGRO-INDUSTRIAL COMPLEX IN THE CONTEXT OF THE IMPLEMENTATION OF INTERNATIONAL EXPERIENCE**

**Abstract.** The situation on the market of bank crediting of agricultural enterprises is analysed. Have been identified the key reasons for the low efficiency of the current mechanism of lending by banks to the agro-industrial sector. The key shortcomings in the system of financing the enterprises of the agro-industrial complex are revealed. The investment attractiveness in Ukraine is considered and specified in the dynamics by regions. The volumes of financing the activity of agro-industrial enterprises in Ukraine by sources of income are analysed. It is proved that effective financing opens wide opportunities for the development of enterprises in the agricultural sector.

In the study general and specific economic methods, as well as a basic research approach, which allowed us to determine the economic nature of the financial sector and the scope of financing of agricultural enterprises are used. The financial instruments of the agricultural enterprise use of which will promote the achievement of the European standards are offered. Scientifically substantiated recommendations on the directions of application in Ukraine of the international experience of stimulation of the financial activity of subjects of the agro-industrial complex are entered. In developed countries, a rich arsenal of support tools is used to support

financial activities in the agro-industrial complex. A list of the most common tools for such support used in developed countries is given. It is noted that the solution of problems of financial support for the development of the agro-industrial complex should be carried out on the basis of studying, generalizing, and taking into account the best international experience. The world experience of financing the agricultural sector of the economy and the peculiarities of the distribution of state subventions for the development of agricultural production are studied. The scientific novelty of the obtained results is represented by a set of theoretical and practical aspects of the study, namely proposals for the current state of lending to agriculture and recommendations for the use of new financial instruments in the context of the implementation of international experience.

**Keywords:** crediting, financial sector, agro-industrial complex, international experience.

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## **ФІНАНСУВАННЯ АПК У КОНТЕКСТІ ІМПЛЕМЕНТАЦІЇ МІЖНАРОДНОГО ДОСВІДУ**

**Анотація.** Проаналізовано ситуацію на ринку банківського кредитування сільськогосподарських підприємств. Установлено ключові причини низької ефективності чинного механізму кредитування банками агропромислового сектору. Виявлено ключові недоліки в системі фінансування підприємств агропромислового комплексу. Розглянуто

інвестиційну привабливість в Україні та конкретизовано в динаміці по областях. Проаналізовано обсяги фінансування діяльності підприємств АПК в Україні за джерелами надходження. Доведено, що ефективне фінансування відкриває широкі можливості для розвитку підприємств аграрного сектору.

У дослідженні використано загальнонаукові та конкретні економічні методи, а також базовий дослідницький підхід, який дозволив визначити економічну природу фінансового сектору і сферу фінансування аграрних підприємств. Запропоновано фінансові інструменти аграрного підприємства, використання яких сприятиме досягненню європейських стандартів. Внесено науково обґрунтовані рекомендації щодо напрямів застосування в Україні міжнародного досвіду стимулювання фінансової діяльності суб'єктів агропромислового комплексу. У розвинутих країнах для підтримки фінансової діяльності в агропромисловому комплексі використовується багатий арсенал інструментів підтримки. Подано перелік найбільш розповсюджених інструментів такої підтримки, що застосовуються в розвинутих країнах. Зазначено, що розв'язання проблем фінансового забезпечення розвитку агропромислового комплексу доцільно здійснювати на основі вивчення, узагальнення і врахування кращого міжнародного досвіду. Досліджено світовий досвід фінансування аграрного сектору економіки та особливості розподілу державних субвенцій на розвиток сільськогосподарського виробництва. Наукова новизна отриманих результатів представлена сукупністю теоретичних і практичних аспектів дослідження, а саме пропозиціями щодо сучасного стану кредитування АПК і рекомендаціями щодо використання нових фінансових інструментів у контексті імплементації міжнародного досвіду.

**Ключові слова:** кредитування, фінансовий сектор, агропромисловий комплекс, міжнародний досвід.

Формул: 0; рис.: 5; табл.: 2; бібл.: 16.

**Introduction.** The development of the agro-industrial complex is one of the main factors in the rapid and effective integration of Ukraine into the international economic community. It is possible to realize the powerful potential of the agricultural complex only with the active financial support of the agro-industrial complex.

It is expedient to solve the problems of investment support of the development of the agro-industrial complex on the basis of studying, generalizing, and taking into account the best international experience. This is due not only to the fact that in the process of research it is possible to study the experience of leading countries and on this basis to carry out the formation and implementation of financial support for investment activities in the agro-industrial complex, avoiding possible risks. First of all, it should be borne in mind that Ukraine is trying to integrate into the world economy, and therefore in order to create attractive business conditions for various economic activities, including in the field of agro-industrial production, it is important to use various tools of investment regulation (legal norms, rules, standards of investment activity).

**Analysis of recent research and problem statement.** The problem of effective financing of the agro-industrial complex is deeply considered in the articles by M. Demianenko [1], M. Dziamulych [2], L. Katan [3], I. Kolodiazna [4], G. Korniiichuk [5], A. Lutsenko [6; 7], A. Mykhailov [8], I. Sviderska [9], S. Khalatur [10], O. Stashchuk [11], V. Yakubiv [12]. Thanks to their efforts, the credit market was analysed, international experience and prospects for the introduction of new financial lending instruments in Ukraine were outlined. In particular, Onyschenko [13] proposes the author's position on the vision of the modern development of bank lending as a basis for financial intermediation in Ukraine. Despite the sufficient theoretical basis of research on agribusiness lending, the presented research does not allow to determine the range of stimulating factors for the development of financing of agricultural producers using international experience. The need for analysis and development of lending to the agricultural sector remains in the field of view of researchers and analysts constantly. All this forms a scientific and practical interest for further study.

**The purpose of the article** is to study the features and prospects of financing the agro-industrial complex implementing international experience.

**Research results.** Access to financial resources is an important factor in the development of agriculture and farming. Today, the agricultural sector plays an important role in the development of Ukraine’s economy. The impact of globalization processes, transformational changes, and pandemics has brought the agricultural sector to a new level of development, where the leading role is given to agricultural producers. However, the question of the financial capacity of agricultural enterprises in domestic and foreign markets, further development of the agricultural sector of the national economy remains open.

The system of mortgage lending combines the real estate market and the financial market, therefore, it is characterized by the risks of these markets: market, credit, and operational risks, as well as liquidity and refinancing risks. In order to minimize the effects of their impact, it is expedient to develop a set of measures and methods for their minimization in terms of their species [14].

Various ratings speak eloquently about the state of the investment climate in Ukraine and business expectations. A general study by the World Bank and IFC on business conditions has recently been published.

The highest outflow of investments was in the sphere of Ukrainian industry — almost 1.6 billion dollars. At the same time, investments are focused on finance and insurance, IT, as well as professional, scientific, and technical activities. In the first quarter of 2020, investments from Cyprus decreased by \$ 1.4 billion, from Germany — by 427.5 million, from the Netherlands — by 178.4 million. At the same time, investments from Switzerland increased by 112.1 million, from Poland — by 48 million, from France — by 45 million, from Austria — by 38.5 million. The main investors in the agro-industrial complex of Ukraine, including agriculture are Cyprus, the USA, Germany, France. Foreign direct investment in Ukraine during 2019—2020 is shown in Fig. 1, Table 1.

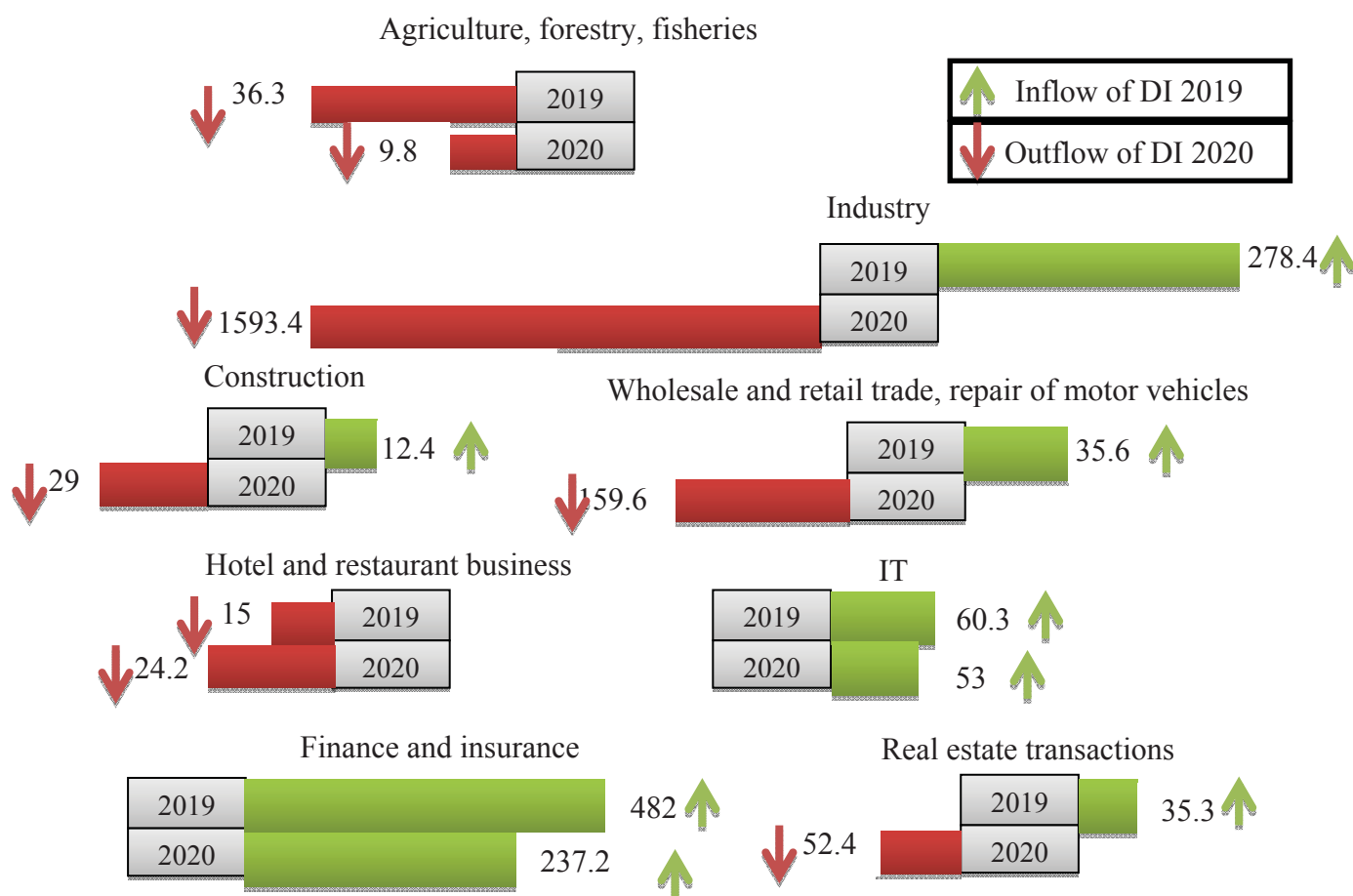


Fig. 1. Foreign direct investment in Ukraine 2019—2020, million dollars USA  
Source. [15].

Table 1

**Direct investments of major foreign investors in agriculture, hunting, forestry of Ukraine**

Country	2019		2020	
	million dollars USA	% to the amount of FDI in agriculture	million dollars USA	% to the amount of FDI in agriculture
Cyprus	162.3	14.57	283.6	30.43
Germany	464.2	41.67	37.1	3.98
Netherlands	201.5	18.09	23.2	2.49
Austria	43.4	3.90	81.7	8.77
Great Britain	74.9	6.72	120.9	12.97
Poland	100	8.98	148	15.88
USA	46.0	4.13	58.1	6.23
Sweden	0.6	0.05	112.6	12.08
France	21.1	1.89	66.7	7.16
Total	1114	100	931.9	100

Source: calculated by the author according to the [15].

Activities in the agricultural sector of Ukraine are carried out on the basis of various sources of funding. Among the most widely used in Ukraine are the following: own sources, state budget expenditures, local budgets, investment revenues, and other sources of funding.

The volume of financing the activities of agricultural enterprises in Ukraine in 2019—2020 has decreased significantly (*Table 2*).

Table 2

**Volumes of financing the activities of agricultural enterprises in Ukraine by sources of income, %**

Year	Total costs, UAH billion	Including from sources, %			
		own	state	local	other
2019	55.25	71.4	3.5	7.8	17.3
2020	36.44	69.2	6.0	8.7	16.2

Source: calculated by the author according to the [15].

In 2020, there is a negative trend in the agro-industrial sectors of Ukraine's economy, the amount of funding has reached its critical limit — 36.4 billion UAH, which is 34% less than in 2019. It should also be noted that in 2019—2020. Financing of activities by 85—90% was formed at the expense of own and other sources. Therefore, funding from the state and local budgets was used in this period by 10—15%, which indicates insufficient funding in this area.

Financing of agriculture in Ukraine and in many countries of the world is based on a combination of such levers as state support and financial instruments. Among the most common financial instruments are bank lending, agricultural insurance, promissory notes, lending for software products, leasing, agricultural receipts, forwards, bonds, letters of credit, guarantees, factoring, venture funds, foreign investment, business angels, business incubators crowdfunding, private grants.

Of the total number of authorized banks that signed a Memorandum on General Principles of Cooperation from the Ministry of Economy (36 banks), 33 banks took part in providing compensation for loans. Most loans were provided by the following banks: Raiffeisen Bank Aval (UAH 112.2 billion, of which UAH 8.5 billion was reimbursed), Credit Agricole Bank (UAH 8.9 billion, of which UAH 1.4 billion was reimbursed), OTP Bank (5.2 UAH billion, of which UAH 1.6 billion was compensated), ProCredit Bank (UAH 3.9 billion, of which UAH 3 billion was compensated), Oschadbank (UAH 2.6 billion, of which UAH 2.5 billion was compensated), Privatbank (UAH 1.7 billion, all of which was reimbursed) and Ukreximbank (UAH 1.6 billion, of which UAH 1.4 billion was reimbursed) (*Fig. 2*). The average interest rates of banks, at which agribusiness entities attracted loans, were 18—22% per annum.

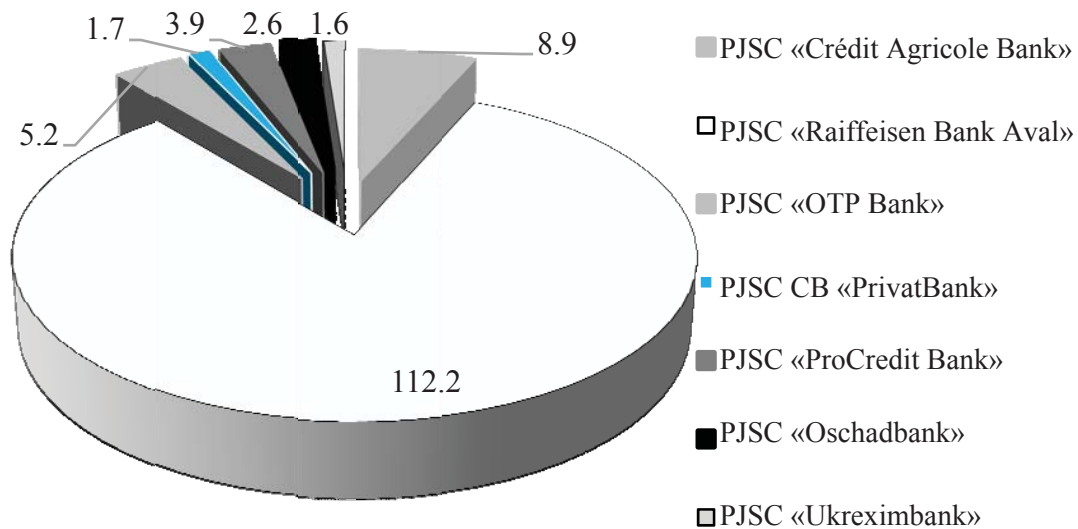


Fig. 2. **The volume of loans granted to agricultural producers, banks in 2020, UAH billion**  
 Source. [15].

Top-5 leaders among the regions where the most compensated loans — Odesa (91.6 million UAH), Kharkiv (71 million UAH), Ternopil (68.9 million UAH), Vinnytsia (66.5 million UAH), and Cherkasy (65, UAH 4 million) of the region (Fig. 3).

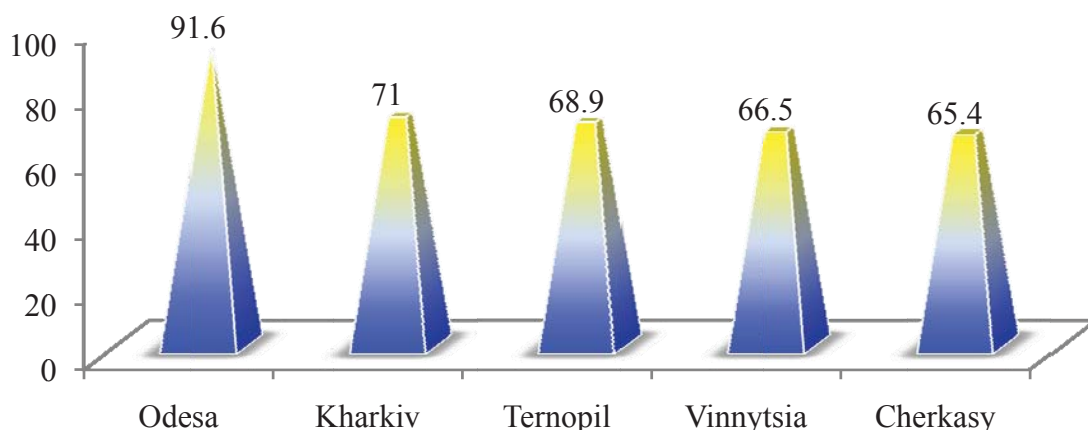


Fig. 3. **Top-5 leaders among the regions where the most compensated loans to the agro-industrial complex, 2020, UAH million**

Source. [15].

More than 4.2 thousand borrowers who applied to authorized banks received targeted budget funds. The total amount of loans attracted by such entities amounted to over UAH 143.5 billion, of which UAH 24.8 billion was offset by budget funds, including: a) by types of loans: short-term — UAH 11.6 billion (46.7%); medium-term — UAH 6.1 billion (24.7%); long-term — UAH 7.1 billion (28.6%); b) by type of activity of borrowers: livestock industry — UAH 4.5 billion (18%); other industries — UAH 20.3 billion (82%).

AIC enterprises, as special subjects of the financial market, are in constant search of various financial resources.

In modern conditions such instruments as agricultural receipts have become widespread in Brazil and Serbia. But what if Ukraine has a common problem with these countries such as the inaccessibility of bank loans for small and medium-sized agricultural producers so using such an instrument is quite appropriate [16].

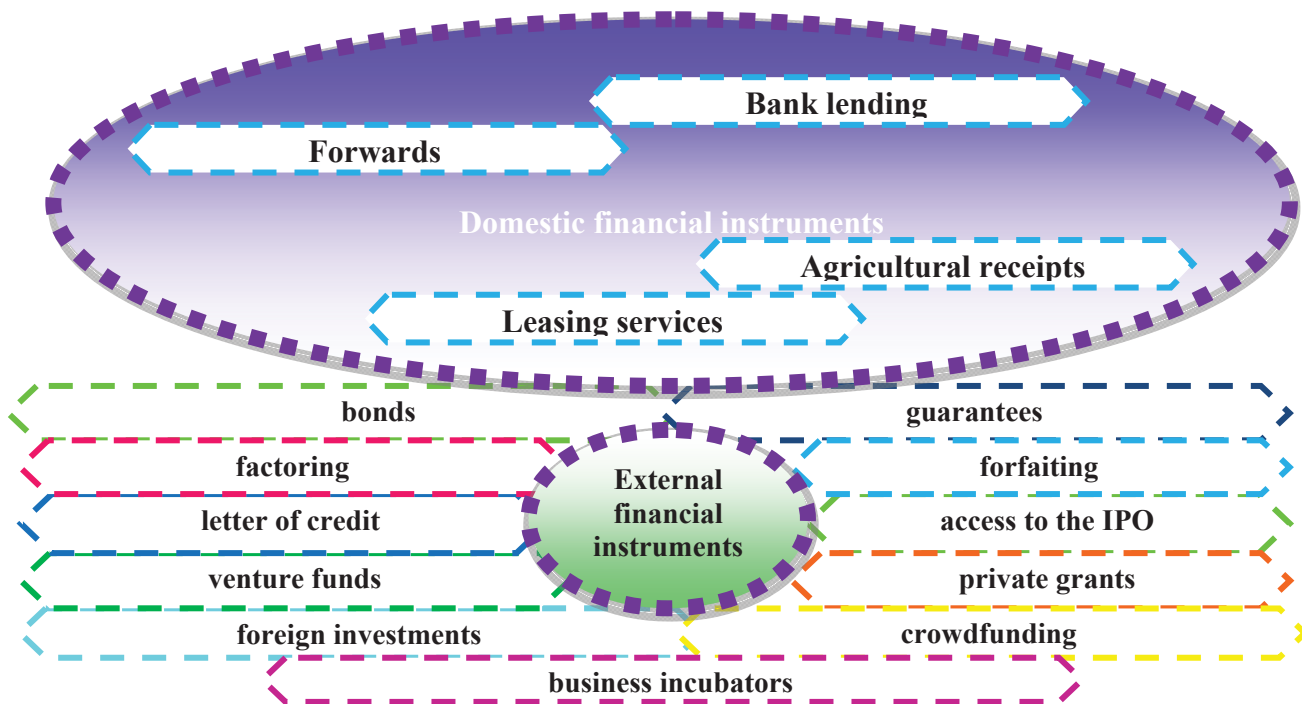


Fig. 4. Financial instruments of an agricultural enterprise

Thus, receipts have already helped agricultural producers to obtain funding in the amount of more than 32 billion hryvnias. However, in a period of global climate change and given the continued development of the agricultural sector, it is important to provide farmers with a wider range of tools to attract additional funding.

Thanks to the joint efforts of the public, public and private sectors, agricultural receipts have become one of the most common and convenient financing instruments in agriculture. The agricultural receipt should be transformed from a commodity management document into securities transactions, which will significantly expand the opportunities of farmers to attract additional funds.

The first international agricultural receipt was issued by an agricultural producer from Chernihiv region for the supply of 10,000 tons of corn for the next harvest.

The first international financial agricultural receipt was issued by an agricultural producer from Lviv region in the amount of \$ 50,000 secured by 140 tons of future rapeseed harvest.

New business opportunities from the use of agricultural receipts (*Fig. 5*):

- the opportunity to attract borrowers from the livestock and processing sectors, as well as cooperatives;
- transparent taxation, as creditors will be able to include agricultural receipts in their operating activities;
- convenient refinancing of loans by selling agricultural receipts, even at a discount;
- further securitization of agricultural receipts and creation of a liquid secondary market;
- lower cost of issuing agricultural receipts;
- expansion of collateral options for different categories of agricultural products that can be pledged under agricultural receipts.

Taking into account foreign experience, Ukraine is trying to use financial instruments in shaping its own modern agricultural policy. However, it should be understood that each country builds its own methods and tools of financing the agricultural sector, taking into account certain features of its territorial development and functioning. They are, in most cases, focused on maximizing the protection of the domestic producer and supporting him in both domestic and foreign markets.

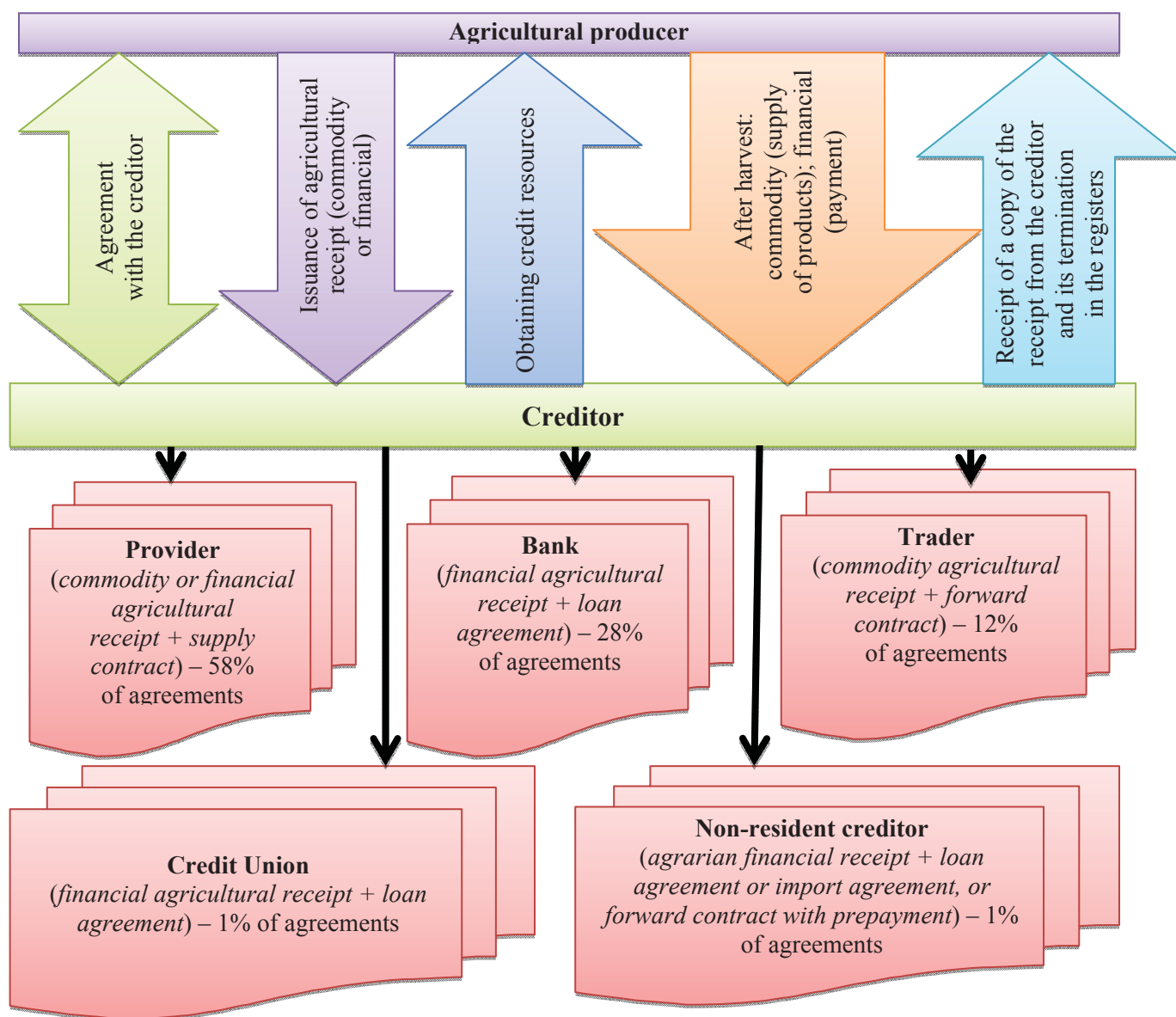


Fig. 5. Business model on agricultural receipts

An example of the use of financial instruments in the United States in the agricultural sector is lending, which has become part of public policy. In addition, there are intermediary structures in the country that directly provide producers with loans and other financial services: the Farmers Service Agency, the Commodity Credit Corporation, Farmers Guarantee Funds for lending and risk insurance support, cooperative banks, and other institutions.

Similar financial institutions also operate in France, Japan, the Netherlands, and Israel, where most financial transactions in the agro-industrial complex are carried out through the involvement of specialized banks.

Also in the United States, among business measures to support agribusiness, «business incubators» and venture funds are of particular interest. The main purpose of «incubators» is to support innovative small businesses, help entrepreneurs who want but cannot start their own businesses.

An important area of state innovation policy, which is carried out at the federal government level, is to attract private capital to finance it. It is sold mainly through venture funds.

In France, there is also a regional network of various centres, organizations for technology transfer, such as the already mentioned “incubators”. SOFARIS Special Joint Stock Company, which includes 12 regional offices and commercial banks, provides support to small businesses in



the field of equipment modernization and international cooperation, in addition, has a special fund for lending various research projects, development of new products with their introduction to the market.

China and the United Kingdom use one of the tools for fast lending — forfeiting, which has become widely used in recent years. These enabled commodity producers to increase their own competitiveness, solvency, liquidity, accelerate capital turnover, as well as minimize the number of receivables.

International invoicing has become widespread in Belgium and the Netherlands, where the domestic market is small. These countries are rapidly developing both export factors and import factors, which collect information about debtors for exporters from other countries. It is also worth noting that Europe today is the undisputed leader in the provision of factoring services. In addition, factoring is developing rapidly in Asia.

**Conclusions.** Foreign experience shows that each country in the process of forming financial sources uses a variety of financing instruments. In particular, today external financial instruments have been formed, to which special attention should be paid, such as attracting business incubators, business angels, financing from a venture fund, forfeiting, factoring, etc. Of course, each of the financing instruments plays an important role in the economic activity of the producer and can become a priority for agribusiness.

Thus, the study of international experience in financing producers makes it possible to identify the following set of effective mechanisms that can be used to improve the practice of agricultural lending in our country:

— the development of agricultural finance and credit markets is characterized by an evolutionary type of transformation aimed at expanding farmers' access to credit and other financial services;

— agricultural credit becomes integrated into the national system of services offered in the financial market;

— the state cannot effectively distribute credit because there is no appropriate infrastructure, and in most cases — and experience;

— financial intermediaries have a limited interest in financing agricultural entrepreneurs and are therefore not at all interested in taking the risk of possible non-repayment of a soft loan.

It is not possible to significantly increase the efficiency of financing in agriculture by using only one instrument or one policy direction. A comprehensive approach is needed to overcome the problems that hinder lending to agriculture, taking into account the specifics of the state. The consistency of agricultural policy and the adoption of relevant legislation and other regulations play a significant role in this.

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