



# CONCEPTUAL APPROACHES IN DETERMINING FINANCIAL SUSTAINABILITY OF AGROFORMATIONS

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## -----ABSTRACT-----

*The purpose of the study is to develop theoretical and methodological foundations and conceptual approaches to the development of a financial mechanism in agriculture, a strategy for state financial regulation and financial support for agricultural producers, taking into account regional characteristics, as well as practical recommendations for strengthening the financial sustainability of agricultural enterprises.*

**KEY WORDS:** *Agricultural Producers, Financial Support, Approaches, Recommendations.*-----

## INTRODUCTION

In accordance with the purpose of the study, the following tasks were solved: - to conduct theoretical research into the essential content of the financial mechanism of state regulation and financial support for the agricultural sector by expanding, clarifying and systematizing theoretical and methodological approaches to its research; - analyze the genesis of the development of the country's agriculture, the features of each of its stages; - identify opportunities for adapting foreign experience of government regulation and financial support in the agricultural sector of the economy for domestic agricultural producers; - develop conceptual approaches to the formation of a mechanism for state regulation and financial support for agricultural sectors; - to justify the strategic directions for the development of budgetary financing of agriculture, and also, based on program-targeted methods, to determine the optimal amount of state financial support from the budget, taking into account the resource and adaptive potential of rural areas; - to diagnose the current state of forms and methods of state financial support for agricultural producers at the regional level by identifying the organizational and legal conditions for the formation of financial resources, financial assessment of the property status of agricultural producers, in order to develop a set of measures for the financial recovery of agricultural enterprises in the region; - reveal the directions for the development of methods of fiscal regulation of agricultural enterprises, taking into account the characteristics of the agricultural sector; - develop a strategy and directions for the development of the financial mechanism of state regulation and financial support of agricultural producers by: a) substantiating methodological approaches to monitoring information support for the formation and use of financial resources of agricultural enterprises; b) determining the prospects for regulating investment activities and modernizing modern forms and methods of state financial support

## MATERIALS AND METHODS

In recent years, almost all CIS countries, including Uzbekistan, have been paying great attention to the development of the agricultural sector. Thus, in a short period of time, an appropriate market infrastructure was formed in Uzbekistan, which made it possible, to a certain extent, to improve the material and technical base, ensure the replenishment of working capital, stabilize production, and resolve issues of marketing agricultural products.

Huge opportunities for increasing production volumes, sharply increasing labor productivity, reducing production costs and improving their quality lie in the specialization and concentration of production based on agro-industrial integration.

Agro-industrial integration is the process of bringing together sectors of agriculture and industry for the purpose of organic synthesis of these spheres of social production and their harmonious socio-economic development. Practice has developed two main forms of integration of agricultural and industrial production: cooperation and combination.



As a result of agro-industrial integration, agro-industrial formations are formed, which represent a set of technologically, economically and organizationally interconnected agricultural and industrial enterprises and organizations engaged in the production, storage, processing and delivery of products from agricultural raw materials to consumers. Agro-industrial formations are distinguished by a variety of forms. They can be classified according to the following four areas: the nature of the activities of integrated formations, sectoral composition, forms of ownership, and organizational forms of management.

One of the central directions of regulating economic relations in agriculture is the creation of corporate integrated formations on the principles of cooperation. Integrated agro-industrial formations are classified according to territorial-sectoral (complex) and sectoral (functional) characteristics.

Agro-industrial formations of a territorial type are economic organizations that unite several different industries and enterprises that are closely connected territorially, organizationally and technologically. They carry out general management with a separate apparatus, general planning, centralization of sales and supply services, and financing.

Territorial agro-industrial formations act in the form of commercial and non-profit organizations in the form of unions, concerns and companies.

Agro-industrial formations of the sectoral (product) type are economic organizations in which enterprises and organizations can maintain or lose legal or economic independence. This form of integrated formation can be created:

- According to the production and technological principle, for example, the association of agricultural producers to coordinate activities and protect economic interests;
- On a product basis, in this case integration occurs for a specific type of activity with the aim of economically profitable marketing of the final product.

In terms of scale, agro-industrial formations can be district, regional and interregional.

Non-profit agro-industrial formations include non-profit partnerships, associations (unions), and consumer cooperatives.

Agro-industrial formations of a commercial type include a limited liability company, joint-stock companies, a holding company, and a financial and industrial group.

An agricultural formation is a legal entity that owns or has economic control over land, as well as other separate property, and carries out the production of crop and livestock products and services for agricultural production.

To assess the sustainability of the financial condition of agricultural entities, a system of indicators characterizing changes is used:

- The capital structure of the enterprise according to its placement and sources of education;
- Efficiency and intensity of capital use;
- Solvency and creditworthiness of the enterprise;
- Stock of financial stability of the enterprise.

Analysis of the financial condition is carried out not only by the managers and relevant services of the enterprise, but also by its founders and investors - in order to study the efficiency of the use of resources; banks - to assess lending conditions and determine the degree of risk; suppliers - to receive payments on time; tax inspectorates - to fulfill the plan for the receipt of funds into the budget, etc.

“Financial analysis, writes V.V. Kovalev, is a way of accumulating, transforming and using information of a financial nature, with the goal [1]:

- Assess the current and future financial condition of the enterprise;
- Assess the possible and appropriate pace of development of the enterprise from the standpoint of their financial support;
- Identify available sources of funds and assess the possibility and feasibility of their mobilization;
- Predict the position of the enterprise in the capital market.

Financial analysis based on financial statements is called the classical method of analysis.”



This is how the famous American expert in the field of financial analysis, L.A., writes about it. Bernstein: "It can be used as a screening tool when choosing an investment direction or possible merger options [2]. All decisions made can be reduced to three main areas:

- Decision on investment of resources;
- Operations carried out using these resources;
- Determination of the structure of the financial business.

"Timely and... quality provision in these areas financial decisions," writes A. D. Sheremet, "is the essence of financial analysis" [3].

A.I. Kovalev and V.P. Privalov interpret it as follows: "Financial condition is a set of indicators that reflect the availability, allocation and use of financial resources" [4].

Also, Professor Sheremet A.D. writes that "the financial condition of an enterprise is characterized by the placement and use of funds (assets) and the sources of their formation (equity capital and obligations, i.e. liabilities)" [3].

Professor Balabanov I.T. writes: "Financial condition is a comprehensive assessment of its health and vitality, characterized by a number of indicators" [4].

Ultimately, the financial position of an enterprise should indicate the reliability, stability and prospects of the enterprise in a competitive market economy that does not spare the weak and unviable.

Financial stability is one of the characteristics of the correspondence of the structure of funding sources to the structure of assets. In contrast to solvency, which evaluates the current assets and short-term liabilities of an enterprise, financial stability is determined based on the ratio of different types of sources of financing and its compliance with the composition of assets.

Another important factor in the financial stability of an enterprise, closely related to the types of products manufactured and production technology, is the optimal composition and structure of assets, as well as the correct choice of strategy for managing them. The art of managing current assets is to keep in the accounts of the enterprise only the minimum necessary amount of liquid funds that is needed for current operational activities.

A stable financial position has a positive impact on the implementation of production plans and provision of production needs with the necessary resources. Therefore, financial activity, as the main part of economic activity, is aimed at ensuring the systematic receipt and expenditure of monetary resources, implementing accounting discipline, achieving rational proportions of equity and borrowed capital and its most efficient use.

And, conversely, as a result of underfulfillment of the plan for the production and sale of products, there is an increase in its cost, a decrease in revenue and the amount of income and, as a consequence, a deterioration in the financial condition of the enterprise and its solvency. Thus, it is possible to determine the main goal of financial activity - to decide where, when and how to use financial resources for the effective development of production and obtaining maximum income.

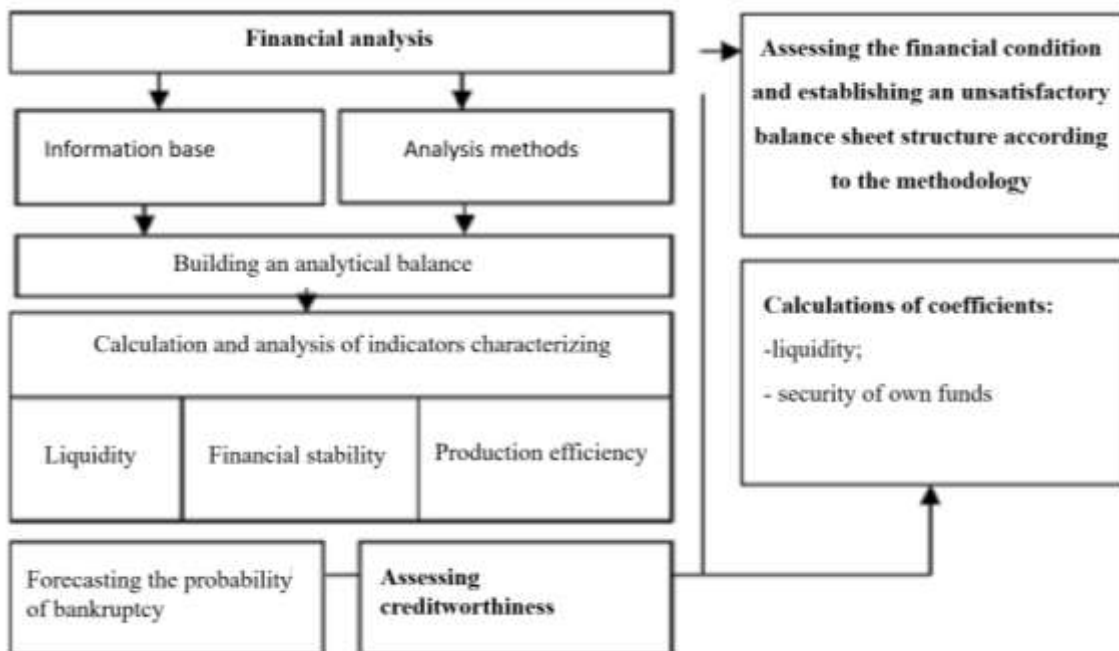
Analysis of financial condition is an integral part of general financial analysis. You can schematically imagine how the analysis of financial condition is carried out, this can be seen from Figure 1.

The purpose of a detailed analysis of the financial condition is a more detailed description of the property and financial position of an economic entity, the results of its activities in the expiring reporting period, as well as the development opportunities of the entity for the future. It specifies, complements and expands individual express analysis procedures. In this case, the degree of detail depends on the desire of the analyst.

Analysis of the financial results of agricultural formation activities includes the following research elements as mandatory elements:

- Changes in each indicator for the current analyzed period ("horizontal analysis" of financial performance indicators for the reporting period);
- Study of the structure of relevant indicators and their changes ("vertical analysis" of indicators);
- Study of the influence of factors on income ("factor analysis");
- Study in a generalized form of the dynamics of changes in financial indicators for a number of reporting periods (that is, "trend analysis" of indicators).

One such indicator is the return on total assets. The average value of assets is used for the calculation, since income is earned throughout the year, and not just in a certain period of time. Average assets provide a better idea of how assets were used in the year under review. The higher the return on assets, the more skillfully management uses the resources of the enterprise.



**Figure 1: Financial analysis agricultural formations**

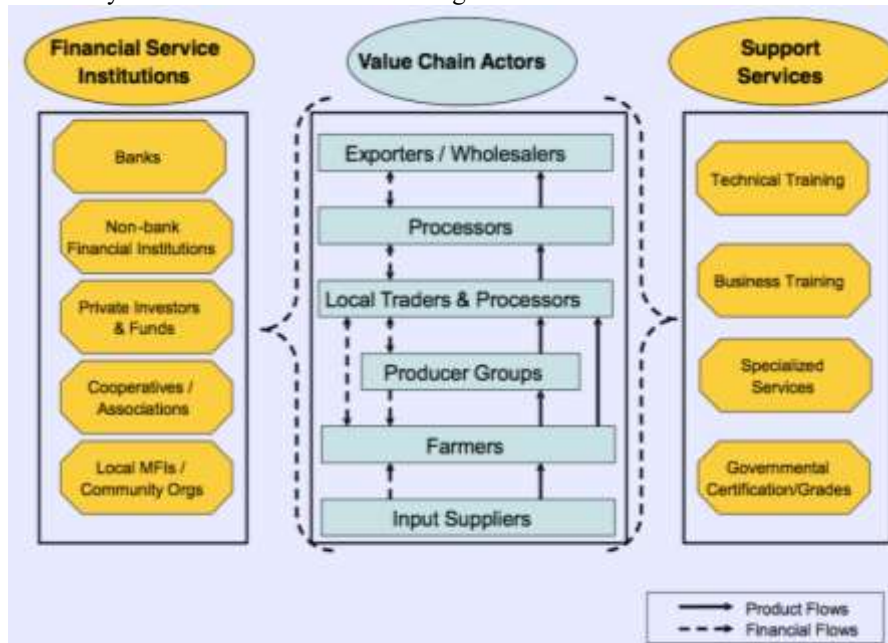
Financing for agricultural value chains is more indirect and is developed within the interrelation's hips among suppliers, buyers, producers and banks. The focus of financing is on transactions between two or more participants in the chain, rather than on direct lending to farmers or entrepreneurs. Such transactions are financed to reduce costs and risks, increase efficiency and improve the creditworthiness of those involved in the chain by reducing financing risks. This is an integrated financing approach to the agricultural system. Different actors in the chain can access financing through different instruments and financial service providers. In developing countries, informal financing is usually on the part of producers, while more sophisticated financing instruments are used on the other side of the chain (eg, exporters) (IFAD, 2012) [5]. The systematization of information exchange among value chain participants through cell phones has improved economic integration and cooperation. Cell phones connect financial partners along the value chain through telecommunications and cashless transactions. Their purpose is to facilitate financing, product marketing and information transactions among supply chain partners. For example, the Drum net system a public-private project in Kenya provides modern information technology to coordinate commercial networks (connecting farmers with agro processors and input suppliers) and improves farmers' productivity by improving access to credit (International Development Research Centre, 2013) . There are two main types of value chain finance. Value chain financing can be used to finance the production of fertilizers, for example, where the fertilizer company provides the fertilizer and the farmer pays the fertilizer company only after the harvest has been sold. This approach includes product financing, trade credit, input supplier credit, marketing company credit, lead company credit, etc. 2. External financing. This is where, for example, a microcredit bank covers the cost of fertile repurchases be half of the farmer. The reare a variety of instruments for this, which are summarized in Box 1.

Box 1: Glossary of Terms Used in Value-Chain Finance

- Internal Finance
  - Trade credits: the trader pays the farmer for the goods in advance and the farmer agrees to repay at harvest time or another agreed time.
  - Input supplier credits: the producer receives inputs from the supplier and repays them after harvest or another agreed time.
  - Marketing company credit: a marketing company, processor or other upstream buyer finances the farmers or local trader in cash or in kind. The buyer then locks the price of its purchases. The farmer or trader gets access to credit, supplies and secured sales (IFAD, 2012) [7].
  - Lead firm credit: a large company finances its clients, for example, to increase their production.
- External Finance
  - Receivables financing:
    - Trade-receivables finance: a financial institution buys account receivables or confirmed orders from a business advancing its working capital (IFAD, 2012) [7].
    - Factoring: a financial institution (factor) buys those invoices of business discounting commissions and fees, consequently advancing most of the payments to the person/company (Investopedia, n.d.).
    - Forfeiting: used in exportation of goods, a financial institution (forfeiter) purchases the amount importers owe

to the exporter in freely negotiable instruments, discounting commissions and fees and paying cash. The importer is obliged to pay its debt to the forfeiter (Investopedia, n.d.).

Box 1: Glossary of Terms Used in Value-Chain Finance (continued) Physical-asset collateralization: • Warehouse receipts: a documented proof of the ownership, and specific characteristics of certain commodities stored in a warehouse. They “provide a secure system whereby stores agricultural commodities can serve as collateral, be sold traded or sued for delivery against financial instruments” (Giovannucci, Varangis, & Larson, 2000). • Repurchase agreements (repos): short-term borrowing. A buyer receives securities as collateral and agrees to repurchase them at a later date. Commodities are stored with accredited collateral managers who issue receipts with agreed conditions for repurchase agreements and provide a buy-back obligations on sales, and are therefore employed by trading firms to obtain access to more and cheaper funding based on that security (IFAD, 2012) [7]. • Leasing: used popularly to finance machinery, automobiles and equipment in agriculture. The lessee usually makes a down payment and can use the asset while paying periodic contributions. At the end of the term, the lessee may have an option to purchase the asset. Risk mitigation products: • Insurance: businesses make periodical payments to an entity (insurer) to partially or absolutely cover its losses from a particular adverse event. • Forward contracts: sales agreement to buy or sell an asset for an agreed price and moment set at the time of the sale. It reduces the risk of adverse price movements in an asset (hedging) and can be used as credit collateral (IFAD, 2012) [7]. • Futures: standardized forwards contracts traded in specialized futures exchanges. Financial enhancement instruments: • Securitization instruments: a business creates a cash flow of illiquid assets (for example, receivables) that are sold to a special-purpose vehicle (an entity insulated from the management of the business) that will issue securities backed by these assets. The amounts entering from the sale of these securities finances the business. • Loan guarantees: a third party to the loan provides a guarantee to the borrower to lower the repayment risk. ( Source: IFAD (2012), Investopedia (n.d.), Giovannucci, Varangis , & Larson (2000) ) [8] . Figure 2 shows a variety of financial relations and linkages from inside and outside the value chain.



**Figure 2: Financial relationships and support services that affect the value chain Source: Using the Value Chain in Financing Agriculture, FAO (n.d.)**

Infrastructure Finance A well-functioning agricultural sector needs appropriate infrastructure such as: road networks to link isolated rural areas to markets; irrigation technology to reduce farmers' dependence on rainfall; storage facilities to protect harvests from weather and pests; telecommunications to ensure efficient trading, water supply and energy; among others. However, rural infrastructure is underfinanced all over the world. Large-scale infrastructure, such as roads, is particularly in need of investment. Traditionally large-scale infrastructure was largely funded by the public sector. However, governments have increasingly been experimenting with different funding options to finance infrastructure, including by enlisting the active participation of private sector partners and financial institutions. The participation of the financial sector in these projects requires a completely different set of skills from other types of lending, because it entails financing public assets (usually long-term financing) and, consequently, high risks. The models of public-private partnerships (in which the private sector shares the project risks with the public sector in projects) range from donor-funded projects to entirely privately financed



projects (FAO, 2008). Contractual arrangements include service contracts, management contracts, lease agreements, concessions, build-operate transfer (BOT) investment models or, in some cases, the total ownership by the private partner of a certain infrastructure. Financing for these infrastructure projects comes in the form of debt, equity and other risk mitigation mechanisms and can be part of a pool of financing from banks, institutional investors, development banks, official development assistance (ODI) and governments (Bond, Platz, & Magnusson, 2012). Small-scale infrastructure presents different challenges. Local markets, small-scale processing facilities, local feeder roads, small power generators, health centers, clinics and schools are key to rural development (Bond, Platz, & Magnusson, 2012). Apart from traditional financial actors, smallscale infrastructure has also been developed and operated by actors along the value chain who see a business in offering a package of services. For example, trading companies provide producers with storage facilities to store crops before they are sold. In some cases, cooperatives have also covered smaller infrastructure projects for a targeted number of users. For example, in India, the creation of infrastructure facilities is financed by the National Cooperative Development Corporation (Nabard, 2008) [9].

4.4 Financing for R&D Innovation and knowledge are other critical areas that need financing. R&D has resulted in numerous innovations for agriculture. EMBRAPA, for example, a state-owned company that coordinates the national agricultural research system in Brazil, has developed more than 9,000 technologies in Brazil. It has been key to the transformation of savannahs into agriculturally productive land (FAO, 2012) [7]. It relies primarily on public financing because of its public aim to provide innovative knowledge for the sector as a whole. However, it should not be constrained to public financing, given the interest of the private and financial sector in its results. Development banks have also financed R&D. For example, the World Bank has a track record of financing operating costs and capital investments of R&D in sub-Saharan Africa (Lynam, Beintema, & Annor-Frempong, 2012).

5. Who Finances Agriculture? The diverse system of agricultural finance enables a wide variety of actors to be financiers. Different risks and instruments are covered by different actors. Farmers and small entrepreneurs play the most important role and are the first level, acting mainly within the informal sector (such as community savings systems) but also in more complex organizations, such as saving and credit cooperatives and unions or mutual credit guarantee schemes. Cooperatives and credit unions play an important role in agriculture as self-help member institutions. Unlike banks, they have a non-profit status. Smaller cooperatives are well positioned to offer their members better access to financial institutions and investments. Most private sector finance traditionally comes from local commercial banks, branches of foreign banks and insurance companies. These institutions finance small farmers and entrepreneurs directly, facilitate microfinance schemes and finance large rural infrastructure projects. The most successful ones have in-house expertise in the agriculture sector and the capacity to diversify across geographic regions, economic sectors and agriculture sub-sectors (Agrifin Facility, 2010) [10]. However, infrastructure financing can include a combination of actors, such as private partners, financial institutions, national and local government, development banks or donors. Development banks play an important role in agriculture finance by filling financial gaps in developing countries. They finance specific programs in the public sector, directly with local companies or through local banks acting as intermediaries because of their better access to the domestic market. For example, the InterAmerican Development Bank (IADB) financed projects in 2004 and 2006 through PROSAP in the northern provinces of Argentina, with investments in irrigation, rural roads and electrification, and water management. The IADB has also financed irrigation programs in Bolivia (2008), Brazil's Tocantins state, Guatemala, Guyana, Haiti and Jamaica (IADB, 2014).

6. The Role of Government in Financing Agriculture Aside from private sources of finance, governments are also important sources of finance for developing country agriculture. Public financing can focus on particular actors, such as small farmers or enterprises; on particular issues, such as environmental protection and organic agriculture; or on particular geographic locations (See Box 2). Other promising government initiatives include the creation of financial institutions in agriculture, whose regulations are usually defined by central banks. For example, the Agricultural Bank of Ghana, the Agricultural Development Bank Limited of Nepal, Banco Agrícola de República Dominicana and Bank Pertanian Malaysia are state-owned banks acting as major financiers in their countries. They are mostly supervised by other governmental agencies such as ministries of Agriculture or Finance (FAO, 2001) [11].

## CONCLUSIONS

Access to finance is a vital part of any developed agriculture sector, and drawing farmers and small entrepreneurs in developing countries into the financial system is far from accomplished. It is not more coincidence that the countries with developed financial markets in the agriculture sector are the ones where the sector is also highly developed. This does not necessarily mean that only developed countries can have successful stories of agriculture finance. In fact, many of the examples cited above come from developing countries. It requires a combination of good laws, a specialized financial sector and profitable businesses of small and large farmers and companies in the agriculture sector. Innovation in finance to solve the needs of the rural sector should not be limited to financial institutions. The government can play a proactive role by promoting laws and regulations with new financial instruments or even raising awareness of existing ones to bring them to the attention of the financial and



agricultural sectors. Specialization in agricultural finance in the government and in the financial sectors is an important driver to its development. However, financing is not a charitable activity; it is primarily profit driven. This necessarily means that all possible regulation and programs to attract financing must be realistic with the characteristics of the sector and the viability and rate of return. Managing the risks and understanding the opportunities of the agriculture sector is key for any successful policy or law. Thus, to attract finance and, consequently, investment in the agriculture sector, it is critical to strengthen both the agriculture and financial sectors. This requires a coherent strategy with consistent regulation and policies that match the sectors' needs and in line with the realistic capacities of all the actors in both sectors. Moreover, financial regulations must go beyond economic development. An effort must be made to take a holistic approach to consider, among others, food security, poverty reduction and mainstreaming marginalized groups. The approach should include all interested parties—including the different ministries or agencies, as well as farmers' organizations and financial institutions—to create a win-win-win agricultural financing system.

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