
BULGARIA'S FINANCIAL MARKETS IN AGRIBUSINESS – SIZE, STRUCTURE AND DEVELOPMENT TRENDS

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Abstract: The aim of the study is to establish the size, structure and financing trends of Bulgaria's agribusiness. Improving the liquidity and turnover of short-term assets of farms is a goal of paramount importance because it also improves profitability. This necessitates diversification of the sources and instruments to finance the operating capital, such as credits, leasing, factoring, forfeiting, etc. At micro- and macro-level, the provision of information for financial management purposes should be improved to facilitate the access to public and corporate financial markets of short-term and long-term funds for the agribusiness. Public financial markets in Bulgaria's agribusiness grew steadily from over BGN 1 billion/year during the first reference period of the common agricultural policy of the EU (2007–2013) to BGN 4 billion/year at the end of the 2014–2020 period. They also played an important role in generating reciprocal company financing of over BGN 3 billion/year of over BGN 7 billion/year of all financing in the sector. Structurally, short-term financing accounts for more than 2/3 to 3/4 of all financing.

Keywords: public funds, corporate finance, banks, own sources.

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Introduction

Financial markets have a significant impact on the development of the markets for other factors, such as land and labour, as well as the markets of agricultural products and means of production - machinery, feed, seeds, preparations (veterinary-medical, plant protection, etc.) and hence on the development of the agricultural sector in general. They play an important role not only by supporting their development and the development if markets integrated with them, but also in diversifying the sources of financing. They have a positive influence on the financial stability of farms, as well as on production and sale of agricultural products in the country and abroad. Therefore, they are an important factor for a sustainable and accelerated development of Bulgaria's agribusiness.

The topicality of the problem for the Bulgarian financial agricultural markets stems from their importance for the food and social security of the country. The agricultural sector plays an important role for the green circular economy, which is a promising area for development for the EU and its Common Agricultural Policy (CAP). The green circular bio-economy is important for the sustainable development of agriculture and other sectors by generating businesses whose integration requires financing. Innovation and high-value-added agricultural products as well as access to markets also require financing. Bulgarian agriculture is under the influence of global threats and opportunities, the adaptation to which requires funding for survival and achieving supranational competitiveness.

Overcoming global climate challenges, preserving soil fertility and reproduction in animal husbandry, fighting pandemics, etc., in order to ensure food and national security, require solid funding. The agricultural sector is under pressure to introduce new production and distribution technologies by means of supply chains and digitization policies for faster adaptation and survival. Financing is also needed to combat a number of diseases (COVID-19, avian and swine influenza, etc.) that stagnate the production, processing and sale of agricultural products. The prosperity of Bulgarian agriculture requires both short-term and long-term financing from financial market sources.

Moreover, the financial markets in the agricultural sector differ from those in the non-agricultural sectors (Marinov et al., 2001; Lyubenov., Lyubanova, 2017a). They are less developed and integrated as well as exposed to additional risks and seasonal fluctuations in demand and supply of short-term financial resources due to the seasonality in agriculture. They are characterized by limited or no opportunities to issue pledge securities for financing of farms. Organizations that attract savings from rural areas have higher transaction costs.

The structural characteristics of financial markets in agribusiness in terms of institutions (banks, agencies, funds, etc.) that offer financing services and non-institutional entities seeking such funds (rural households, agricultural producers, etc.) determine the interaction and relations between sellers and buyers of financial assets from areas that generate financial resources to areas that demand such. They reveal the significantly weaker positions of agricultural holdings in terms of market, information, personnel and resource security, compared to their sources of financing - banks, funds, agencies, suppliers, traders, etc.

The less developed infrastructure and communications in rural areas and the poorer integration with markets (product, factor and means of production) make financial markets in agribusiness riskier and less profitable, which is why banks and non-financial organizations are more cautious when they offer financing to this sector. Agricultural financial markets are characterized by greater risk and lower profitability compared to non-agricultural financial markets. As a country with a less developed market economy, respectively food and other markets, Bulgaria also has less developed markets for loans, leases, and other, more expensive financial instruments.

In Bulgaria predominate small agricultural holdings, which have more difficult access to information and production factors, such as land, labour, and capital. They are less risk-averse than larger, more profitable farms. Scarcity of information and production factors such as arable land and other fixed assets makes restrict their access to credits and other financing instruments. Therefore, smaller farms take out loans and insurance policies less often and generally use fewer external sources of financing. Compared to non-agricultural enterprises, they also have higher relative costs of accessing financial and other markets.

The less accessible and less developed financial markets in agribusiness cannot provide the necessary short-term and long-term financing for production of agricultural products and their distribution to markets for products, means of production, etc., which has a negative effect on the sustainable development of farms. This calls for specialized interventions on financial markets in agribusiness not only by means of various government policies, such as monetary, fiscal, agrarian, etc., but also by establishing specialized agricultural funds - guarantee, investment, turnover, etc. Public finance in agribusiness stimulate the development of corporate finance as well.

The problems outlined above show why credit cooperatives (Lyubenov and Lyubenova, 2017a; Nan et al., 2019) and non-conventional creditors (Tetteh et al., 2022) other than banks and funds are an important source of financing for agricultural holdings. Farms have a low marketing and financial culture and their financing decisions are often irrational (Musshoff et al., 2011). The segments of the financial markets in agribusiness are not determined in terms of

their characteristics but in terms of financial service provided (Roucan-Kane et al., 2010). The risky nature of the agricultural sector and the difficult access to financing require a proactive government policy (Mishra et al., 2005; Onyiriuba et al., 2020; Pokrivčák et al., 2022) to ensure solid and stable public financial markets in agribusiness.

There are relatively few studies in this field although they are extremely important for accelerated and sustainable development of Bulgaria's agribusiness, which is why their intensification will boost the development of a number of sectors. The object of research is Bulgaria's financial markets in agribusiness and its subject are the sources and structure of short-term and long-term financing in the sector. The aim of this study is to establish the size, structure and financing trends in Bulgaria's agribusiness sector. The research includes a complex combination of analysis, synthesis, comparison, mathematical and graphic methods.

The purpose of the research will be achieved through an analysis of the main public and corporate sources of short-term and long-term financing and the trends of financing Bulgaria's agribusiness. It complements and develops further previous research works conducted by the authors in this field. The analysis covers the last period of EU's CAP from 2014 to 2020 as 2021 and 2022 are transitional and the financial framework for the period 2023-2027 has not yet been adopted. The study is structured in three parts - public and corporate financial markets in agribusiness, long-term and short-term financial markets in agribusiness, and trends of development of the financial markets in agribusiness.

Public and corporate financial markets in agribusiness

Bulgaria has signed a framework financial agreement for EUR 7.7 billion under the EU's CAP 2014-2020. More than 65% of these funds are for its first pillar, and less than 35% for the second. Most of the funding for the first pillar is spent on market support and direct payments per hectare, which are of a revolving nature, and the long-term funds under the second pillar are allocated to services and projects (Lyubenov, Lyubenova, 2017b). The average annual budget of the Agricultural Fund is BGN 0.92 billion for the RDP, BGN 1.5 billion for direct payments and more than BGN 0.41 billion for state aid and loans (Lyubenov, Lyubenova 2020), which is a total of over BGN 2.83 billion /year (Fig. 1). In 2020, BGN 99 million will be provided under the new measure 21 of the RDP for COVID-19, and in 2021 (www.mzh.government.bg, 11.05.2023) these funds will amount to BGN 14.7 million.

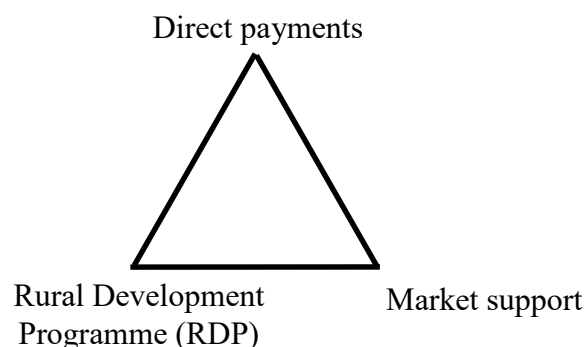


Figure 1. Public financial markets in agribusiness

Direct payments have three mandatory components that apply to all EU member states (Economedica, AGRI 2015-0230): Single Area Payment Scheme (SAPS), Green Direct Payments, Young Farmers Scheme. They are not tied to production, but to the size of cultivated land (at least 0.5 ha), the application of climate- and environment-friendly agricultural practices, and age – for farmers under 40 years of age who started farming in the last five years. These schemes are tied to SAPS and about BGN 1 billion/year is allocated for them. Apart from them, there are also schemes for production-based direct support for at dairy and meat cattle, sheep and goats, buffaloes, fruits, vegetables, etc., for which about BGN 0.5 billion/year are allocated.

Market support under the EU's CAP 2014-2020 reduces the scope of direct intervention instruments. It concerns the general organization of the market, which includes an internal part, an external part and general provisions for emergency measures. The internal part includes market interventions through intervention prices for certain agricultural products, market rules and producer organizations. The external part is for the exchange with third countries (import and export certificates, import duties, management of tariff quotas, export refunds, etc.) and competition rules and state aid. The total amount of funding is over BGN 0.41 million/year.

RDP 2014–2020 forms financial markets for about BGN 1 billion/year. (www.dfz.bg, 11.05.2023) for investment schemes for businesses, municipalities, compensatory payments, etc. The highest interest is in the schemes for investments in agricultural holdings (Measure 4) and for investments in small-scale infrastructure (Measure 7) by municipalities (Lyubenov, Lyubenova, 2017b). They account for about half of the financial resource of the RDP - BGN 0.45 billion/year. Measure 4 Investments in tangible assets accounts for 26.6% of the financial resource of the RDP, i.e. about BGN 0.25 billion/year under the condition that farms raise the same amount of co-financing from their own or

foreign sources. Together with the required co-financing under other measures, farms must raise additionally over BGN 0.3 billion/year.

Corporate financial markets in agribusiness are dominated by bank loans, which, according to the requirement regarding the source of financing, are external markets for the agricultural holdings while the retained earnings and depreciation costs are covered from their own sources - Figure 2. Leasing, factoring, forfeiting, etc. account for a very small relative share of corporate financial markets in agribusiness (Lyubenov, Lyubenova 2017a). As we have already pointed out, the secondary financial markets do not function well, which determines the primary role of loans as is one of the main sources of corporate financing for Bulgaria's agricultural holdings.

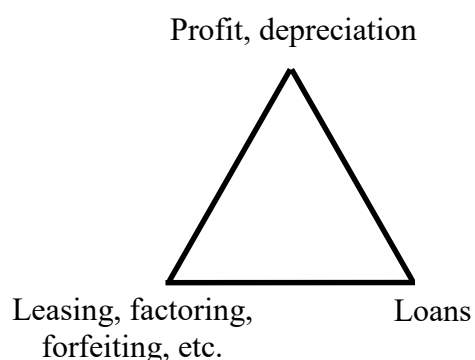


Figure 2. Corporate financial markets in agribusiness

For the period 2011–2016, the amount of approved loans in the sectors of plant production, animal production, forestry and hunting grew from BGN 1.2 to 1.8 billion. In 2016, financing through leasing reached 10% growth for companies in the agricultural sector and levels between BGN 150 and 160 million, and by 2020 it was over BGN 200 million (Lyubenov, Lyubenova, 2020). The agricultural sector accounts for about 6% of total bank financing and is the fifth most important business for bank lending after trade, manufacturing, construction and real estates. It consumes over BGN 2 billion in loans from commercial banks in 2020, and even in the conditions of the COVID-19 pandemic, it maintains a smooth and sustainable growth of the financial agromarkets of loans and leasing.

Commercial banks are in collaboration with Zemedelie State Fund and agricultural holdings. The Zemedelie State Fund is a payment and intervention agency that controls, determines, approves and transfers financial funds for farms through approved banks. Commercial banks provide public financial resources to agribusiness for over BGN 3.5 to 4 billion/year. They participate

in bridging and guarantee schemes with the Ministry of Agriculture and other financial and non-financial institutions to support farms in their access to financial agricultural markets. Commercial banks provide farms with additional loans, leases, etc. outside the realm of public funding.

Small agricultural holdings are not attractive and desirable clients for banks, which is why they use their own sources of financing or participate in mutual credit cooperatives. Agricultural land is a major resource in agriculture, but farms very rarely sell their lands, machinery or buildings, i.e. their financial resources are very limited. Depreciation accruals of small farms are also not a significant and sustainable source of own funds. Sale of agricultural produce is the main source of own financial means for farms.

Funding from own sources may exceed BGN 0.5 billion/year. (Lyubenov, Lyubenova, 2020), but in individual years it varies due to many factors such as weather conditions, market prices, epidemics, etc., which cause significant shocks. In some periods, the prices of agricultural products do not cover their production cost, which does not allow the use of agricultural product markets as a source of financing. Therefore, agricultural holdings need public financing, subsidies, bank loans, leasing, etc. for more intensive and competitive development.

Short-term and long-term financial markets in agribusiness

Short-term and long-term financial markets in agribusiness as sources of financing for agricultural holdings have an important role in achieving liquidity in the short run and profitability in the long run. Working capital is not only related to the achievement of liquidity and turnover as a primary general objective, but also to the achievement of profitability as secondary objective of farms. Access to short-term and long-term financing correlates with the achievement of liquidity and profitability of farms. It was significantly limited for Bulgarian farms until our accession to the EU (Lyubenov, Lyubenova, 2017a), after which it significantly improved.

The problem of liquidity and turnover of agricultural holdings (Lyubenov, Lyubenova, 2003) is topical even today, since in the agricultural sector there are objective factors (weather, biological, technological, organizational, market, etc.) which limit the turnover of short-term assets. Agricultural holdings have high fixed costs and varying and uncertain incomes and market prices are often below the cost price of the agricultural produce. To resolve these issues and achieve the required levels of liquidity and turnover, farms need access to working capital markets, without which Bulgarian agricultural holdings cannot achieve vitality and competitiveness.

The markets for products, production factors and means of production can be sources of working capital for farms (Lyubenova, Lyubenov, 2003; Lyubenova, Lyubenova 2017a). Examples in this regard are the markets for grain storage notes and contracts for the purchase of future production, including forwards, futures and options. Sources of working capital are also the suppliers of means of production (seeds, fertilizers, preparations, fuels and oils, etc.), as well as the organizations that use agricultural products (processors, wholesalers and retailers). Given their stronger market positions, they often require working capital from the agribusinesses.

Sources of short-term financing can also be large agricultural holdings that have working capital from agricultural subsidies, etc. Horizontal integration of farms and vertical integration with processors and wholesalers are another source of short-term finance. Their ability to provide short-term financing depends on both their financial position and the ability to use working capital from commercial banks, which is why they are not a reliable source of working capital. Another source of short-term financing are public national, European and other agricultural funds.

We can summarize the limited or difficult access to corporate sources of working capital for Bulgarian agricultural farms as due to: 1) absence or poorly developed organized agricultural markets - commodity exchanges, auctions, tenders, farmers' markets and auctions; 2) stronger market positions of wholesalers and retailers (unorganized agricultural markets) who require working capital from agricultural holdings; 3) low degree of horizontal and vertical integration in the national agribusiness; 4) underuse of factoring, forfeiting and operating leasing; 5) large intercompany indebtedness at national level and partly in agribusiness.

Overcoming the above-mentioned difficulties requires ensuring access to public financing from the national and EU agricultural funds managed by the Zemedelie SF. In its capacity of a disbursement and intervention agency and a first-tier budget disbursing agency it organizes, directs, coordinates and controls the provision of working and investment funds for registered agricultural producers. Zemedelie SF provides access to a wide range of working capital and investment financing, without which agricultural holdings would have difficulty carrying out their short-term and long-term activities.

Zemedelie SF carries out its activities in collaboration with approved commercial banks. Farms have access to various credit lines in them for payments to suppliers, partners, etc. Banks participate in various schemes for refinancing, bridging loans, guarantees, financial leasing, etc., and offer a wide range of financial instruments for working and investment financing to agricultural producers. They are diversifying their revolving credit products by actively working in collaboration with debt collection companies, and in 2015

alone, the amount of cessions reached BGN 2 billion (Lyubenov, Lyubenova 2017a) with an upward trend.

Bulgarian financial markets in agribusiness are represented by EU public funds, national and corporate financing. Two thirds of the EU's CAP funds for the period 2014-2020 is allocated to the first pillar - direct payments and market support, which are of a revolving nature. For the second pillar, i.e. The RDP 2014-2020, which is aimed at the markets of long-term financing, comprises about 1/3 of the total volume of financing. Two specific features should be taken into account: 1) not all financial resources under the RDP are of a long-term nature; 2) the utilization of the funds under it is below 90% (Lyubenov, Lyubenova, 2017b), in contrast to the first pillar, where almost 100% of the funding is utilized.

A significant part of the eligible investment costs under Measure 4 and other measures of RDP 2014-2020 are aimed at the use and acquisition of products from various industries (buildings and real assets, machinery, facilities and equipment, software, know-how, patents, rights and licenses, trademarks, means of transport, etc.) and services (feasibility studies, fees of architects, engineers and consultants, as well as educational, tourism and other services). Apart from them, Measure 7 of RDP 2014-2020 is for creation, improvement or expansion of municipal infrastructure in rural areas through investments in roads, streets and sidewalks, water supply and sewage systems, internet, education, recreation, sports, tourism, etc. Measures 4 and 7 account for over 48% of the RDP 2014-2020 budget.

The funds for the above measures are disbursed quickly while those for the other measures they are not used in full - less than $\frac{3}{4}$ are disbursed. In addition, the Sub-Programme for Development of Small Farms and partly measures 2, 6, 8 and 15 also cover the use and acquisition of investment products and services, which shows that a significant part (over $\frac{2}{3}$) of the RDP budget 2014-2020 is mostly for them. In addition, the main part of agricultural machinery (tractors, combines, attached equipment), plant and equipment for the food and processing industry, software, means of transportation, etc. are not produced in Bulgaria or do not meet the EU requirements. Therefore, the markets of long-term financing from the EU are sources for financing the acquisition of above all their investment products.

As we already noted, not all financial resources from the 2014-2020 RDP are of a long-term nature. In this regard, measures 9 and 16, as well as partly 19, mainly affect the first-pillar market support. This is probably why the possibility of transferring up to 15% of the funds for market support to the second pillar - development of rural areas is foreseen, since they are not of a long-term nature. Part of the funds under the 2014-2020 RDP as fees and royalties for educational and consulting services, feasibility studies, current

costs and services (environmental, economic, health, veterinary, etc.) under measures 1, 2, 4, 6, 7, 8, 10, 11, 15 and Sub-Programme for Development of Small Farms are also not of a long-term nature. Therefore, working capital accounts for more than 2/3 to 3/4 of all financing.

The two sub-programmes implemented in Bulgaria (the National Beekeeping Program and the National Program to Support the Viticulture Sector) have planned short-term and long-term funding. In the beekeeping sector, the main part of the long-term funds are intended for the purchase of hives and technical equipment for the primary processing of honey (less than BGN 1.6 million), which is less than 1/3 of the annual funds of BGN 5 million (Lyubenov, Lyubenova, Hristakov, 2021). In the viticulture sector, long-term financial resources are under measures Restructuring and conversion of vineyards and Investments in enterprises, which account for about 1/4 of the annual funds of over BGN 52 million (NPPLVS, 2019-2023). In both sectors, long-term financing accounts for less than 1/3 to 1/4 of the total funding.

Trends of development of the financial markets in agribusiness

During the analysed period, the demand for agricultural loans from agricultural holdings increased both for investment purposes and for working capital. In the conditions of a global economic, financial and biological crisis, military conflicts and global problems with the supply chains of agricultural raw materials, Bulgarian agriculture is in good financial health and continues to grow while the share of non-performing loans is significantly lower than that in non-agricultural sectors. Leasing, factoring and forfeiting occupy a very small relative share on the financial markets of the national agribusiness.

In Bulgaria, short-term and long-term loans seem to among the main sources of financing for agricultural holdings. To the five main obstacles to Bulgarian agribusinesses' access to corporate sources of working capital we discussed above, we should also add the poorly functioning public secondary financial markets of securities in agriculture, which determine the primary role of loans for the national agribusiness. Short-term loans take up more than 2/3 to 3/4 of the total structure of public and corporate financing, and long-term loans - the remaining part.

The analysed obstacles to the access to sources of financing show the aspects in which solutions should be sought: 1) creation and entry in more viable markets of products, factors and means of production; 2) improving the horizontal and vertical integration; 3) wider use of financial and operational leasing, factoring and forfeiting; 4) establishment of guarantee funds. In addition, they also show the possibilities for diversification of the used sources

and financial instruments for working capital and investment financing through bank loans, international funds, etc.

On individual farm level, the access to accounting (Lyubenova, 2011), marketing and management information should be improved for better access to short-term and long-term financing from the financial markets in agribusiness, which will allow the farms to maintain adequate liquidity and profitability. On national level, macroeconomic stability, a sustainable banking system, optimization of the activities of the Zemedelie SF, establishment of guarantee funds, improvement of public finance management through a better access to information must be ensured. They have a positive impact on financial markets in agribusiness.

Achieving financial sustainability of agricultural holdings by optimizing cash flows will lead to maintaining liquidity within certain limits and improving the turnover of working capital, on the one hand, and on the other - maintaining a flexible capital structure at a stable level (Lyubenova, 2019) using the most appropriate financing option on public or corporate financial markets in agribusiness from the point of view of financial stability and creditworthiness. This will improve the financial indicators of agricultural holdings and ensure their financial sustainability in the short and long run.

Access to public financial markets in agribusiness requires co-financing from agricultural holdings, participation of guarantee funds and banks for financial transfers and provision of credits and guarantees. An important role in this respect is played by the EU funds and Zemedelie State Fund, which has become a key institution that disbursed over BGN 1 billion/year in the first reference period of the EU's CAP 2007-2013 to reach over BGN 3.5–4 billion/year at the end of the 2014–2020 period. Public financial markets in agribusiness are growing steadily and generate co-financing from the Bulgarian agricultural businesses.

Public financial markets in Bulgaria's agriculture financed by European and state funds have reached BGN 4 billion/year and the own funds financing (over BGN 0.5 billion/year) and external financing (over BGN 2.5 billion/year) account for over BGN 3 billion/year. The total size of the Bulgarian financial markets in agribusiness is over BGN 7 billion/year. The latter makes up over 5.8% of the country's GDP, which for the pre-crisis year of 2019 was BGN 120.4 billion (www.nsi.bg, 11.05.2023). In terms of scale, they are comparable to the value of the agricultural produce, which until the pre-crisis year of 2019 amounted to about BGN 8 billion/year, but it is greater, since the agricultural statistics do not cover all of the produce.

Conclusion

The results of the research on the financial markets in agribusiness in Bulgaria lead to the following conclusions:

First, the diversification of financial instruments for working capital, through integration with product, factor, and means of production markets, will improve the liquidity of farms. In this regard, operating leasing, factoring and forfeiting have significant potential that has not been utilized to its full potential.

Second, short-term and long-term loans are the main sources of financing for Bulgarian farms. Short-term financing accounts for more than 2/3 to 3/4 of the total public and corporate financing, while long-term financing is less than 1/3 to 1/4 of it.

Third, long-term financing accounts for over 1/4 of the total, i.e. over BGN 1.75 billion/year (0.25x7). It is for rural infrastructure, fixed assets for the agricultural sector and related industries - food, processing, trade, tourism, etc., providing financing for many non-agricultural sectors as well.

Fourth, improving the liquidity and turnover of short-term assets of agricultural holdings is a leading and primary objective, because it also improves profitability. This necessitates diversification of sources and instruments for working capital - loans, leases, factoring, forfeiting, etc.

Fifth, access to information - accounting, marketing, etc., as well as the financial management, should be improved both on a micro- and on a macro-level to provide better access to public and corporate financial markets of short-term and long-term funds for the agribusiness.

Sixth, public financial markets in agribusiness are growing steadily from over BGN 1 billion/year during the first reference period of EU's CAP 2007 - 2013 to BGN 4 billion/year at the end of the 2014–2020 period. They are also a driving force for the development of corporate co-financing of BGN 3 billion/year or a total of BGN 7 billion/year.

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