



Financial needs in the agriculture and agri-food sectors in Greece



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Glossary and definitions

Abbreviation	Explanation
Agri-food survey	Survey of the financial needs of EU agri-food processing enterprises carried out in mid-2019 in the framework of study 'EU and Country level market analysis for Agriculture' and based on respondents' financial data from 2018.
AWU	Annual Work Units
CAP	Common Agricultural Policy
CL	Credit Line
EAA	Economic Accounts for Agriculture
EAFRD	European Agricultural Fund for Rural Development
EaSI	EU Programme for Employment and Social Innovation
EC	European Commission
EIB	European Investment Bank
EIF	European Investment Fund
EU	European Union
EU 24	The 24 EU Member States covered by the <i>fi-compass</i> 'EU and Country level market analysis for Agriculture': Austria, Belgium, Bulgaria, Croatia, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, The Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden.
EU 28	All EU Member States: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, The Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, The United Kingdom.
EUR	Euro
FADN	Farm Accountancy Data Network
<i>fi-compass</i> survey ¹	Survey on financial needs and access to finance of 7 600 EU agricultural enterprises carried out by <i>fi-compass</i> in the period April-June 2018 and based on respondents' financial data from 2017.
FoF	Fund-of-funds
GDP	Gross Domestic Product
GFCF	Gross Fixed Capital Formation
GVA	Gross Value Added

¹ *fi-compass*, 2019, Survey on financial needs and access to finance of EU agricultural enterprises, Study report, <https://www.fi-compass.eu/publication/brochures/survey-financial-needs-and-access-finance-eu-agriculture-enterprises>



MA	Managing Authority
ha	Hectare
NPL	Non-performing loans
PDO	Protected Designation of Origin
R&D	Research and development
RDP	Rural Development Programme
SME ²	Small and medium-sized enterprise
SO	Standard Output
TAE	<i>Tameio Agrotikis Epixeirimatikotitas</i> - Agricultural Entrepreneurship Fund
UAA	Utilised Agricultural Area

2 Small and medium-sized enterprises (SMEs) are defined in the EU recommendation 2003/361. The main factors determining whether an enterprise is an SME are: staff headcount and either turnover or balance sheet total. An enterprise is considered as micro, if it has less than 10 employees, as small-sized, if it has less than 50 employees, and as medium-sized, if it has less than 250 employees, https://ec.europa.eu/growth/smes/business-friendly-environment/sme-definition_en.



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EXECUTIVE SUMMARY

This study gives an insight into agriculture and agri-food financing in Greece by providing an understanding of investment drivers, financing supply and financing difficulties as well as estimates of the existing financing gap.

The analysis draws on the results from two comprehensive and representative EU level surveys carried out in 2018 and 2019, namely the *fi-compass* survey on financial needs and access to finance of EU agricultural enterprises and a survey of the financial needs of EU agri-food processing enterprises. The report does not take into account the impact of the ongoing COVID-19 health crisis and/or the effect of any new support scheme being set-up by the Member State and/or changes in legal basis and/or policies at European level to mitigate the crisis, as surveys and data available covered a period prior to its outbreak. This would need to be subject to further analyses by interested stakeholders, administrations and/or researchers.

Financing gap for the agriculture sector in Greece

While the Greek agriculture sector proved to be strong and resilient through the recession years, the sector lacks financing, particularly for investments. Farmers were pulled through the crisis due to support from the Common Agricultural Policy (CAP) and the need to replace food imports with domestic food production. However, structural challenges in the sector, such as the limited size of agricultural holdings, the low added value of production and the low profitability of farming enterprises, constrain access to finance.

The two key drivers of the demand for finance in Greece include:

- (i) The need for working capital finance, to cover the costs of the preparation and cultivation of the farm, the purchase of inventory items, the payment of rent for land and the procurement of feedstuff for animals. This is a very significant need. Over the last two years, agriculture input prices have been increasing and farmers have had to rely on working capital finance to cover their input costs.
- (ii) The need for investment finance, for investments in new machinery, equipment or facilities. This is the second most important driver of the demand for finance in Greek agriculture. Investment in the sector has begun to increase again, despite still being much lower than the EU 28 average. Arable farmers mainly invest in the modernisation of their cultivation equipment, while livestock farmers typically make animal welfare improvements and investments in the modernisation of their feeding and milking equipment. Permanent crop farmers, including vines, also invest in the modernisation of their cultivation equipment.

Support from the Common Agricultural Policy (CAP) facilitates the undertaking of investment, with direct payments and EAFRD grants not only contributing to increased income levels, but also to facilitating the access to finance of farmers, by acting as a guarantee for repayment as required by the banks. In addition, the availability of investment support causes the demand for finance to increase, as farmers need to complement the grant with their own financial contribution, which is often obtained through bank loans. Young and new farmers depend particularly heavily on grants from the Rural Development Programme (RDP), to cover their investment capital needs. The demand for EAFRD investment support is huge and the budget made available so far has not been able to cover the full request by the sector.

The supply of finance to the agriculture sector is mainly provided by one bank, with an estimated 85% share of the market, but agriculture cooperatives are also extending working capital loans to their members. In addition, contract farming arrangements also play a role, particularly for short-term seasonal finance. A number of financial products are available that cover particular working capital and investment needs of the sector. A new EAFRD financial instrument will be launched in Greece in late 2020 with the aim of improving access to finance. It will provide a guarantee of 80% for loans to farmers capped at up to 35% on a portfolio level. It is expected that the financial instrument will create an agriculture loan portfolio of EUR 400 million. In addition, based on the recommendations of the ex-ante assessment for the use of EAFRD financial instruments in 2014 – 2020, at the time of writing, the Greek government is in the process of setting up a risk-sharing micro-loan instrument (loans of up to EUR 25 000) aimed at covering micro-loan applications to



agriculture businesses. The Greek government has approved this financial instrument without the obligation for farmers to have a social security payments clearance certificate.

Outstanding loans, both overall and for the agriculture sector, decreased over the 2014-2019 period, demonstrating that the sector is still repaying debt as a result of the financial crisis. However, the decrease is also linked to the more general risk perception associated with the agriculture sector by banks. In addition, there is a lack of competition in the sector, with one bank serving almost the entire sector.

The ex-ante assessment concludes that Greek farmers and SMEs in the agricultural and agri-food sectors face difficulties accessing financing provided by banks due to unfavourable terms and conditions (e.g. interest rate, maturity, collateral requirements). The sectors are heavily dependent on subsidies as well, more than other economic sectors.

This report shows that there is a considerable financing gap in Greece, estimated to be between EUR 4.5 to 14.3 billion. The financing gap is comprised of two separate components:

- The first component of the financing gap is constituted by the estimated value of loan applications submitted in the past year by **viable enterprises, which were rejected by banks**, or which translated into loan offers refused by the applicants due to non-acceptable lending conditions. According to *fi-compass* survey results, almost 50% of loan applications from the agriculture sector are rejected, these being mostly medium and long-term applications.
- The second component of the gap relates to the estimated value of loan applications that are **not submitted by farmers considered viable, due to discouragement because or of a fear of a possible rejection**. The share of Greek farmers being discouraged from applying is also very high, with 50% of farmers not applying for a loan due to a fear of rejection. This high share is explained by the tumult caused by the financial crisis, and that still affects farmers' access to finance.

A significant share of rejected and viable loan applications came from applicants under 40 years old. In addition, young farmers make up between 23-40% of the discouraged farmers.

Farmers believe that the high rejection rates are largely due to restrictive bank policies, the existence of other loans, and from farms being perceived as economically unviable. Banks, however, say that the main reason why they reject farmers' loan applications is because of the absence of the necessary collateral to secure the loans, both in terms of value and availability. High collateral requirements are a symptom of both the sector being perceived as risky by banks and of banks being risk averse. In addition, farmers that have been discouraged from applying fear that they do not fulfil the banks' criteria (in terms of profitability indicators and repayment capacity) or believe that they have a weak business plan.

The supply side is also constrained as a result of the very significant market concentration. As the agriculture finance market is not very competitive, banks can apply strict client selection criteria and high collateral requirements.

RECOMMENDATIONS

Based on the results of the analysis, several recommendations for public intervention could be considered:

- The EAFRD guarantee instrument that is about to be launched, is expected to improve farmers' access to finance. However, given the magnitude of the gap and the overall situation of the Greek financial market for agriculture, it is unlikely that the instrument will be able to bring the market to normal functionality by the end of the current programming period. Thus, an assessment must be made at a later stage, also in the light of using financial instruments in the next programming period 2021-2027, aiming to verify:
 - The adequacy of the guarantee capital and the expected leverage.
 - The concrete ability to address the constraints of young farmers and small-sized enterprises, which, according to this analysis, are the more constrained segments.
 - The overall performance of the instrument and achievement of targets.
- The EAFRD micro-loans financial instrument, which is under implementation, seems also to be an adequate instrument to support the financial inclusion of micro and small-sized farms as well as young



farmers, who currently have to rely on informal financial sources (e.g. from family or friends) to a great extent. Also for this instrument, an assessment of its performance at a later stage should be undertaken, also in the light of using financial instruments in the next programming period 2021-2027.

- To stimulate banks' lending for higher loan amounts above micro-finance levels, and targeting more market-oriented enterprises (from small to medium scale as well as young farmers and new entrants), a risk-sharing loan instrument might also be considered. It could combine the necessary risk coverage for banks with a higher reduction of the interest rates, something highly desired by Greek farmers as interest rates are far higher than the Euro area's average.
- Independent from the type of financial instrument implemented, the opportunities offered by the new CAP legal framework, such as (i) the easier combination of financial instruments and grant support, alongside interest rate subsidies, (ii) stand-alone working capital provision, or (iii) the possibility to finance the purchase of land for young farmers, might offer interesting opportunities to increase the effectiveness of the instruments directed towards the agriculture sector or towards specific target groups.
- Finally, additional technical support, in the form of training and/or advisory services, could be provided to farmers, also in combination with the financial instruments. This would help improve farmers relationships with banks, and improve the quality of potential future loan applications. Training in financial management and accounting topics should be a fundamental component of this support.

Financing gap for the agri-food sector in Greece

The Greek food and beverages industry is a driving force in the domestic economy. It continues to grow and, despite the recession, remains one of the most competitive exporting industries. It represents approximately 6% of the total gross value added (GVA), which is higher than the European average of around 1.5%.

However, the agri-food sector in Greece lacks financing and investments are lagging behind. The key drivers of demand for finance include:

- (i) Investment in capacity expansion that includes the purchase of processing equipment, buildings, transport vehicles and machinery. Needs are particularly high for the canning and pork sub-sectors, followed by the fruits and vegetables, bakery and oil sub-sectors.
- (ii) Inventory and working capital needs, particularly for small-sized agri-food firms with substantial export activity, as they have to pre-finance the production and promotion that is then paid for by international buyers.
- (iii) The need to develop new products, such as Protected Designation of Origin (PDO) products, particularly in the dairy (cheese and yogurt), olives, natural sweets and honey sub-sectors, or to invest in improved packaging.

Like for agriculture, the EAFRD support for processing and marketing of agri-food businesses, influences investment trends, as many agri-food enterprises invest only in conjunction with obtaining RDP support. Until the end of 2019, all available funds had been disbursed and some agri-food enterprises could not be supported.

The key suppliers of finance to the agriculture sector also provide finance to the agri-food segment, though the market is more competitive than for agriculture. The total market share of the four commercial banks financing the agri-food sector is estimated to be about 90%. Three co-operative banks compete for the rest.

The report shows that there is the potential for new financial instruments with a market gap estimated at around EUR 1.8 billion. The financing gap mainly concerns long-term financing and is predominantly a concern for the small-sized processors that require investment capital.

The new EAFRD financial instrument, that will become operational in late 2020, is expected to contribute towards closing the financing gap in the agri-food sector by providing direct guarantees and/or counter-guarantees for financial institutions when they finance agri-food enterprises.



The main reasons for the **rejection of loan applications are insufficient levels of collateral, the existence of previous outstanding loans, and a lack of credit history**. In terms of collateral, banks often consider the value of existing fixed assets to be low and they fear that the selling price of the equipment or machinery will not be sufficient to cover the outstanding debt in case of default. The non-availability of sufficient collateral in addition to the absence of credit history also cause rejections of loan applications of start-ups. In addition, new agri-food enterprises often face challenges in presenting their business case convincingly.

One core constraint to the supply of finance is the risk averse behaviour of banks – the financial crisis has left the banking sector ailing, and thus banks are less willing to take on additional risk, even though they consider agri-food less risky than agriculture.

The financial needs of agri-food enterprises for the next 2-3 years are expected to increase. This is due to the need to develop new products and reconstitute market shares lost due to capital controls and the Russian import embargo.

RECOMMENDATIONS

Based on the results of the analysis, several recommendations for public intervention could be considered:

- The EAFRD guarantee instrument that is about to be launched, is expected to improve the conditions for access to finance for agri-food enterprises. However, as already mentioned for the agriculture sector, it is unlikely that the instrument will be able to bring the market to normal functionality by the end of the current programming period. At a later stage, with implementation progressing, an assessment of the current set-up should be done to look at:
 - The adequacy of the guarantee capital and the expected leverage.
 - The concrete ability to address the constraints of small-sized enterprises and new entrants which, according to this analysis, are the most constrained businesses.
 - The performance of the instrument and the conditions of the underlining loans offered by banks.
- The EAFRD micro-loan scheme, which is under implementation, would also need time to evolve. A proper assessment of its performance and efficiency, as well as impact, should be done at a later stage, in light of a decision for the next programming period.
- To further stimulate banks' lending for larger investments and loans of higher amounts, above micro-financing, a risk-sharing loan instrument, complementing the EAFRD guarantee fund, might also be considered. It would combine the necessary risk coverage for banks with a higher reduction of the interest rates, which in Greece are far higher than the Euro area average, and are particularly high for small-sized enterprises. Its target could be enterprises of small to medium scale, who also aim at exporting products.
- Independent from the type of financial instrument implemented, the opportunities offered by the new legal framework, such as the easier combination of financial instruments, interest rate subsidy and grant support, might offer interesting opportunities to increase the effectiveness of the instrument towards the most affected segments.
- Technical support, in the form of training and advisory services, might be provided to micro and small-sized enterprises to help improve their knowledge of the banking sector and raise the quality of their loan applications, thereby also making it easier for banks to evaluate their applications.



1. INTRODUCTION

Objective

This document belongs to a series of 24 country reports and presents an assessment of the potential financing gap for the agriculture and agri-food sectors in Greece. The assessment is based on the identification and evaluation of the supply of and demand for financing, on the one hand, and on the quantification of the currently unmet demand for financing for the two sectors, on the other hand. This report aims to contribute to a better understanding of the potential need for continuing currently operating financial instruments, or the creation of new or additional ones, supported by the European Agricultural Fund for Rural Development (EAFRD).

Approach

To conduct an analysis of the potential financing gap in the agriculture and agri-food sectors, the study under which this report is prepared adopts the following three-step approach:

1. Assessment of the number of farms/firms participating in the credit market and analysis of the dynamics of their demand.
2. Mapping of the sources of finance and examination of the dynamics of supply of loans and credit.
3. Assessment of the potential existence of a financing gap, whereby parts of the demand cannot be satisfied by the existing supply but could benefit from financial instruments.

By definition, a financing gap (for a specific sector) arises from unmet financing demand from economically viable enterprises (operating in the same sector). This unmet demand includes two major elements:

- (i) lending applied for (by the viable enterprises), but not obtained, as well as
- (ii) lending not applied for (by the viable enterprises) due to expected (by the same enterprises) rejection of the application (by a financial institution).

The analysis draws on the results from two comprehensive and representative, at EU level, surveys carried out in 2018 and 2019, namely the *fi-compass* survey on financial needs and access to finance of EU agricultural enterprises and a survey of the financial needs of EU agri-food processing enterprises. The latter survey was undertaken as part of the work of this study. The analysis of supply and demand for finance is further elaborated by desk research and enriched with secondary data obtained from EU and national data sources.

The financing gaps for the two sectors are calculated using data from the above-mentioned surveys and additional data and statistical indicators from Eurostat. The calculated financing gaps for the two sectors are independent from each other. The report also outlines the drivers of unmet demand for finance as identified from desk research, and from interviews with key stakeholders from the agriculture and agri-food sectors, government representatives, and financial institutions, and as identified by two focus groups, one for each sector. Information on the supply side of finance was obtained from interviews with nationally or regionally operating financial institutions.

The report does not take into account the impact of the ongoing COVID-19 health crisis and/or the effect of any new support scheme being set-up by the Member State and/or changes in legal basis and/or policies at European level to mitigate the crisis, as surveys and data available covered a period prior to its outbreak. This would need to be subject to further analyses by interested stakeholders, administrations and/or researchers.

Report structure

This report is structured in two parts, each focused on one of the sectors of interest: Part I covers financing for the agriculture sector; and Part II discusses financing for the agri-food sector. Each part is structured in five sections: an overview of the market, an analysis of the demand for financing, an analysis of the supply of finance, an assessment of the financing gap, and conclusions and recommendations.



2. PART I: AGRICULTURE SECTOR

2.1. Market analysis

Key elements of the Greek agriculture sector

- Greece's agriculture output was EUR 10.5 billion in 2018.
- Agriculture represents 4.1% of Greece's Gross Value Added (GVA) and 14% of total employment.
- The agriculture sector is resilient, with its share of Greece's total GVA having increased since 2010, facilitated by the EU CAP support.
- There are more than 684 950 farms in Greece, most of which are small-sized and family-run, with limited income.
- In 2017, the average gross farm income was EUR 17 817.
- Half the farms receiving direct payments from the CAP are micro-enterprises.
- Most farm managers are over 55 years old and less than 10% are below 40 years old.

Greek agriculture output was EUR 10.5 billion in 2018, representing 4.1% of the Gross Value Added (GVA) and 14% of total employment. Agriculture output increased by 3% between 2013 and 2018, despite some slight volatility in output levels throughout the years.

Since 2010, the sector's share of Greece's GVA has increased, demonstrating its resilience during THE financial crisis (that broadly lasted from late 2009 to 2017). However, after 2016, farms have experienced a decrease in turnover due to lower selling prices. While there are few differences among regions, Crete and Macedonia are often considered to be more competitive due to their export orientation.

Greek agriculture is highly diverse. Crop production accounts for 73% of the output, while animal production accounts for 24.5%. The key crop sub-categories, with high levels of output, are vegetables, horticulture products and olives. In terms of animal products, milk accounts for the highest level of output. Most of Greece's agriculture exports (70%) are to countries within the EU. Agriculture exports account for 17.6% of Greece's total exports.³

Most Greek farms are small-sized and family-run. In 2016, there were 684 950 farms in Greece, of which 95.4% had an Utilised Agricultural Area (UAA) of less than 20 hectares (ha) and only 0.2%⁴ exceeded 100 ha.⁵ Greece's physical geography promotes diversity and small-holdings, as around 53% of the UAA is in mountainous areas. A few large floodplains and island land complete the puzzle of the Greek farming.

An emerging trend in agriculture is the decline in the number of farms and the increase in their size. This may result in more robust and viable holdings, as long as the geography allows, and it may enhance the bankability of the sector as large-sized farms are likely to have a higher demand for finance.

CAP support was particularly helpful during the crisis and represents around EUR 2.8 billion per year. Half of the farms (about 340 000 out of 680 000) that receive direct payments are micro-enterprises. These fall under the Small Farmers Scheme of the Common Agricultural Policy (CAP), meaning they receive up to EUR 1 500 in direct payments.⁶ While the average gross farm income was EUR 17 817 in 2017, half of the

³ European Commission, 2019.

⁴ European Commission, DG AGRI, June 2019, Statistical Factsheet for Greece.

⁵ The *fi-compass* survey, on which the subsequent estimations are based, divided farms in three size categories: small (< 20 hectares), medium-sized (20-100 hectares), large (>100 hectares). Hence, in the case of Greece, more than 95% of the farms fall in the category of small-sized farms.

⁶ Greek Managing Authority for Rural Development Program, 2019.



680 000 farms in Greece had a standard output⁷ of less than EUR 4 000.^{8,9}

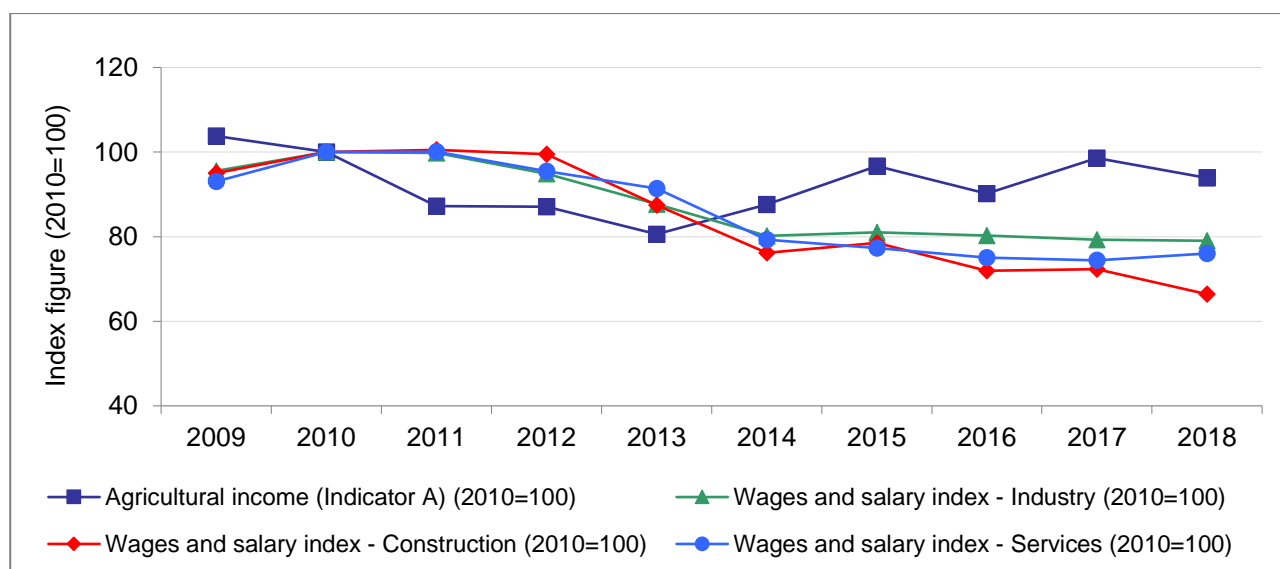
Agriculture remains a significant employer of low-skilled workers in the Greek economy. The on-farm employment losses during the Greek recession were negligible. There are 1.2 million people working in agriculture, with two-thirds working exclusively on one farm. The total labour input in agriculture was 402 840 Annual Work Units (AWU) in 2016. Of this, 237 930 (59.1%) were farm managers, 140 520 (34.9%) were family members and only 24 390 (6%) were non-family labour.¹⁰

Most farm managers in Greece are over 55 years old (60.9% in 2016). Young farmers, under 40, are estimated to make up for less than 10% of farm managers, of which farmers less than 35 years accounting only 3.7%.

Technological advancements and collective action may be needed to successfully address the main problems the sector has recently faced. Organised cooperatives usually limit the negative consequences of fragmented production and bolster the bargaining power of small-sized farms. However, the level of organisation in cooperatives is weak in Greece. Agriculture cooperatives have a small market share, accounting for about 20% of all farm sales. This is twice as low as the EU 28 average of 40%.¹¹ In addition, technological sophistication and use of IT solutions in the sector is low. Research and development (R&D) expenditures in Greek agriculture amount to just EUR 38 million annually, or EUR 11 per ha. This is lower than the global average of EUR 19 per ha, and three times lower than the EU 28 average of EUR 33 per ha.¹²

Compared to other sectors of the economy, **agriculture income managed to recover quicker, partly because of its rather low initial level** (Figure 1). Throughout the financial crisis and until 2013, income across all economic sectors decreased sharply. From 2014 onwards, however, agriculture income increased to levels above the other sectors, and stabilised around the pre-crisis 2009 levels.

Figure 1: Evolution of agricultural income compared to wages and salaries in other sectors of the economy, 2009-2018



Source: European Commission, DG AGRI, June 2019, Statistical Factsheet for Greece.

7 The standard output (SO) of an agricultural product (crop or livestock) is the average monetary value of the agriculture output at farm-gate price in Euro.

8 European Commission, 2018.

9 Based on data by the Hellenic Statistics and the Paying Agency, 2019.

10 European Commission, 2019.

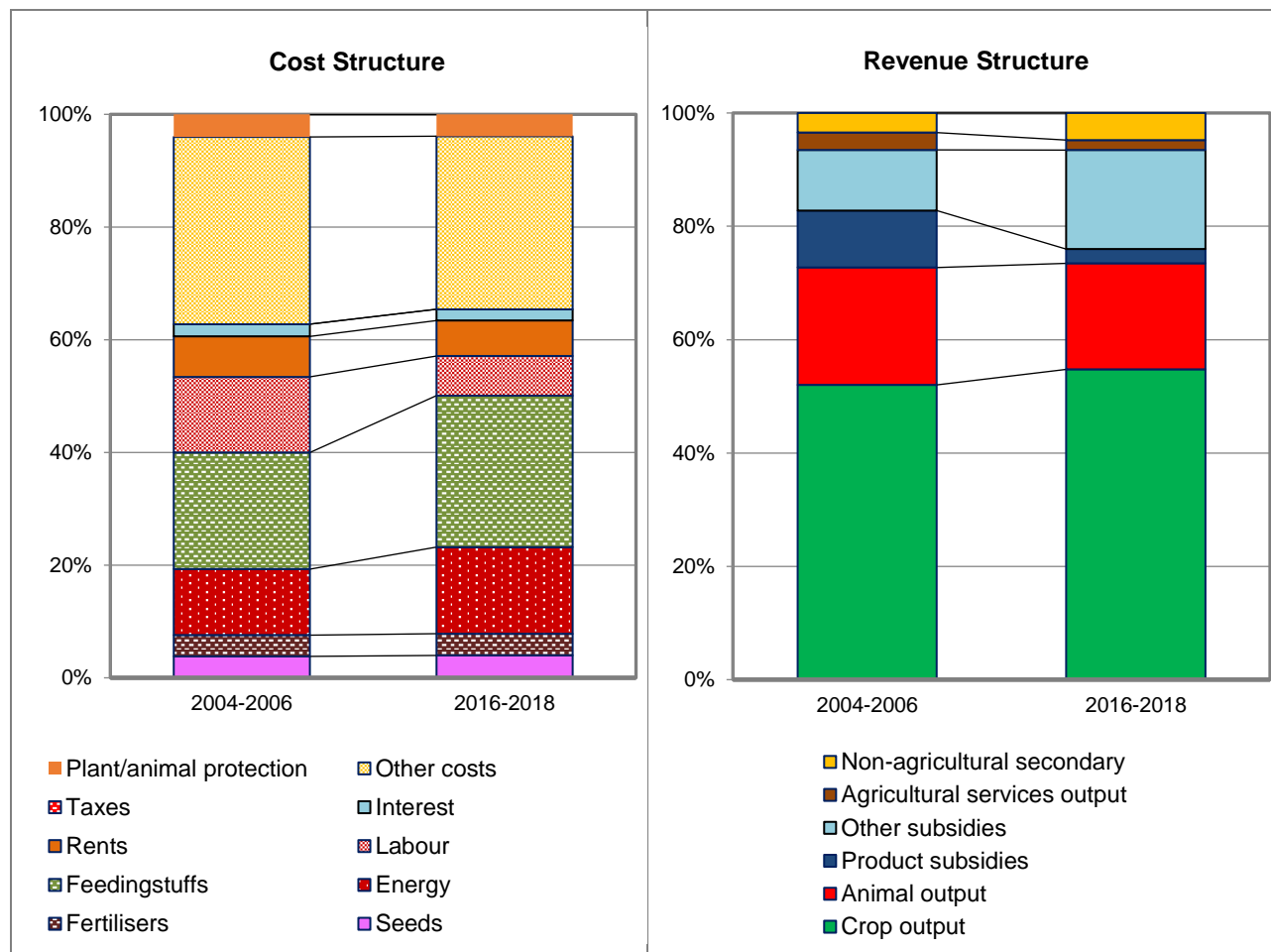
11 EIB, 2018, Assessing the potential use of financial instruments in Greece in agriculture – A study in support of the ex-ante assessment for the deployment of EAFRD resources through financial instruments during the 2014-2020 programming period.

12 Ibid.



As for the cost and revenue structure of the agriculture sector (Figure 2), comparing the years 2004-2006 with 2016-2018, feeding stuffs costs and taxes have increased significantly while labour costs decreased. On the revenue side, the share of revenues from animal output and product subsidies has decreased, while crop output and other subsidies have increased.

Figure 2: Agricultural income – cost and revenue structure in Greece, 2004 - 2018



Source: European Commission, DG AGRI, June 2019, Statistical Factsheet for Greece.

Statistical factsheet Greece, 2019

More data on agriculture indicators from Greece can be found in the [Statistical factsheet for Greece 2019](#) of the Directorate-General for Agriculture and Rural Development, Farm Economics Unit and in the Annex A.6.



2.2. Analysis on the demand side of finance to the agriculture sector

This section describes the drivers of demand for finance in the agriculture sector and analyses met and unmet demand. It seeks to elaborate the main reasons why farm enterprises request financing and identify the agriculture sub-sectors displaying the largest need for finance. The section also provides an analysis of the type of producers who face the greatest constraints when accessing credit. The examination of the demand for agriculture finance is based on the findings from the *fi-compass* survey of 350 Greek farms, as well as interviews with key stakeholders in the agriculture sector, combined with information obtained from the Farm Accountancy Data Network (FADN).

Key elements on finance demand from the Greek agriculture sector

- In recent years, Gross Fixed Capital Formation¹³ (GFCF) in the Greek agriculture sector has shown a rebound of investment, following a dip during the economic crisis period. This is driven by the need for modernisation and compliance with standards.
- Public financing through direct payments from the CAP is an important source of finance for the agriculture sector, amounting to between EUR 1.9 billion - EUR 2 billion per year.
- EAFRD grants are very important to stimulate investments, since farmers often lack the financial resources to carry out an investment without public support. Young farmers and new entrants mainly undertake investments thanks to the start-up support from the RDP.
- Investments in new machinery, equipment or facilities are not widespread, due in part to the consequences of the financial crisis.
- Greek farmers mainly seek loans for working capital as their main inputs are often imported and therefore sensitive to international price fluctuations and heavy taxation.
- Most Greek farmers mainly rely on their own funds to invest, with only about 12% of *fi-compass* survey respondents saying that they applied for bank finance in 2017.
- Almost half of the Greek farms surveyed are discouraged from applying for bank loans due to a fear of being rejected.
- At the same time, almost every second loan application from a Greek farmer is rejected by banks.
- The unmet demand for credit for the agriculture sector in Greece is estimated at EUR 26.6 billion.
- The main reasons for rejection are due to strict bank policies that are inflexible (in terms of grace periods, repayment schedules, loan amounts, etc.) and due to farmers lacking access to sufficient collateral, insufficient management skills, lack of credit history and poor creditworthiness.

2.2.1. Drivers of total demand for finance

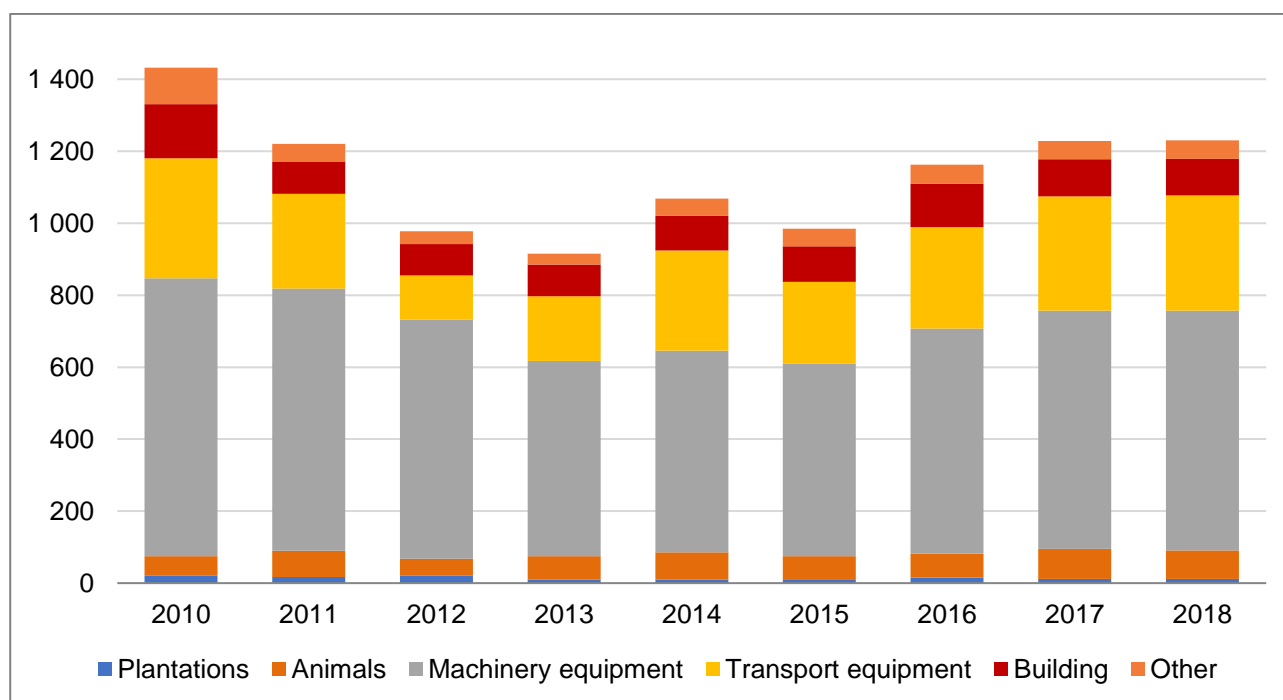
The GFCF¹⁴ of the Greek agriculture sector has started to grow in recent years. GFCF reached a total value of EUR 1.2 billion in 2018, having increased significantly over the previous three years, following an earlier drop. In 2018, investments were mainly made in machinery and equipment (EUR 666 million), transport equipment (EUR 320 million), buildings (EUR 102 million) and animals (EUR 79 million), as shown in Figure 3:

¹³ GFCF measures the value of acquisitions of new or existing fixed assets. GFCF/GVA is used as a measure for how much of the new value added in the economy is invested rather than consumed. Increase of the GFCF is a measure of business confidence, a belief that investments will be profitable in the future. In times of economic uncertainty or recession, business investments in fixed assets typically will be reduced, since it ties up additional capital for a longer interval of time, with a risk that it will not pay itself off.

¹⁴ GFCF does not include land purchases.



Figure 3: Development of Gross Fixed Capital Formation in the Greek agriculture sector in 2010-2018, EUR million



Source: Eurostat, 2019, *Economic Accounts for Agriculture*.

Investments into tangible assets represented nearly 19% of GVA in 2016 (Table 1),¹⁵ which is lower than the EU 28 average share of 30.7%.

Table 1: Overview of GVA and GFCF developments in 2013-2016, EUR million

	2013	2014	2015	2016
GVA	5 794	6 070	6 730	6 313
GFCF	915.13	1 068.45	984.73	1 162.65
Share of GFCF to GVA	15.79%	17.60%	14.63%	18.42%

Source: Author's calculations based on Eurostat and Hellenic Statistical Authority figures.

The need for working capital is a key driver of demand for finance, with 78% of surveyed farmers indicating this use for the loans demanded.¹⁶ This is far higher than the EU 24 average of only 41% (Figure 4). Loans for working capital are used to cover the costs of preparing for the agriculture season and are usually repaid in less than a year, mostly through CAP direct payments and the sale of products.

Greek agriculture is also characterised by informal lending between farmers and input suppliers. This reduces the formal finance demand for working capital loans from banks. Input suppliers tend to finance the purchase of fertilisers, pesticides and equipment against a discount on the selling price of the farm's future produce. The same practice exists with intermediate buyers or processors, who are given the right to buy at a lower price if they pay the quantity they want in advance. According to interviews with banks, this practice is very widespread. While it is difficult to quantify, it is estimated to be used by at least 20% of all farmers,

¹⁵ Hellenic Statistical Authority, 2019, Gross value added by sector (A10) - NACE REV.2. No figures available beyond 2016.

¹⁶ Farmers participating in the *fi-compass* survey.



including also other private loans, such as those provided by friends and family. Based on the results of the *fi-compass* survey, it is estimated that the total value of this type of informal financing is about EUR 314 million.¹⁷

Table 2 shows why the need for working capital is highly significant. The main expenses for intermediate goods are feeding stuff and energy. Most of this is imported and therefore highly sensitive to international prices and the capital controls.¹⁸

Table 2: Agriculture input prices in Greece

Inputs components	2016	2017	2018	2017/2016	2018/2017
	EUR million			% Change	
Seeds and planting stock	320.4	330.2	317.0	3.1%	-4.0%
Energy	1 124.1	1 263.6	1 358.2	12.4%	7.5%
Fertilisers and soil improvers	304.4	319.0	318.0	4.8	-0.3%
Plant protection products	237.0	243.7	252.0	2.8%	3.4%
Veterinary expenses	74.9	70.4	68.1	-6.0%	-3.3%
Feeding stuffs	2 176.7	2 191.6	2 185.4	0.7%	-0.3%
Maintenance of materials	197.1	203.4	206.7	3.2%	1.6%
Maintenance of buildings	17.5	18.2	18.0	4.0%	-1.2%
Agriculture services	258.9	244.9	228.3	-5.4%	-6.8%
Other goods and services	590.9	621.4	624.1	5.2%	0.4%
Total intermediate consumption	5 499.8	5 677.0	5 739.7	3.2%	1.1%
Fixed capital consumption	1 267.5	1 256.6	1 199.9	-0.9%	-4.5%

Source: Eurostat, *Economic Accounts for Agriculture: values at real basic prices (2010 = 100)* Updated: June 2019.

The working capital needs across the various sub-sectors are as follows:

- Livestock farms spend most of their working capital on feedstuff purchases, renewing their livestock, paying their energy bills (high due to heavy excises), and maintaining their equipment.
- Arable crop farms spend a large amount on energy; on the purchase of fertilisers, plant protection products and seeds (often imported); on the maintenance of equipment; and on services. Particularly for those in the more productive floodplain regions, the rent for land may also be considerable, sometimes reaching levels of up to EUR 900 ha per year. On the other hand, the expenses of harvesting crops for many vegetable growers are also significant, as this process involves a lot of manual labour.
- Permanent crops, including vines and olives, have a similar spending pattern as vegetable growers, with large outlays on energy, the purchase of fertilisers and plant protection products, and the maintenance of equipment and services. The expenses of collecting the crops may be even higher than for vegetable growers, as they need to be picked manually (in the case of olives and vines).

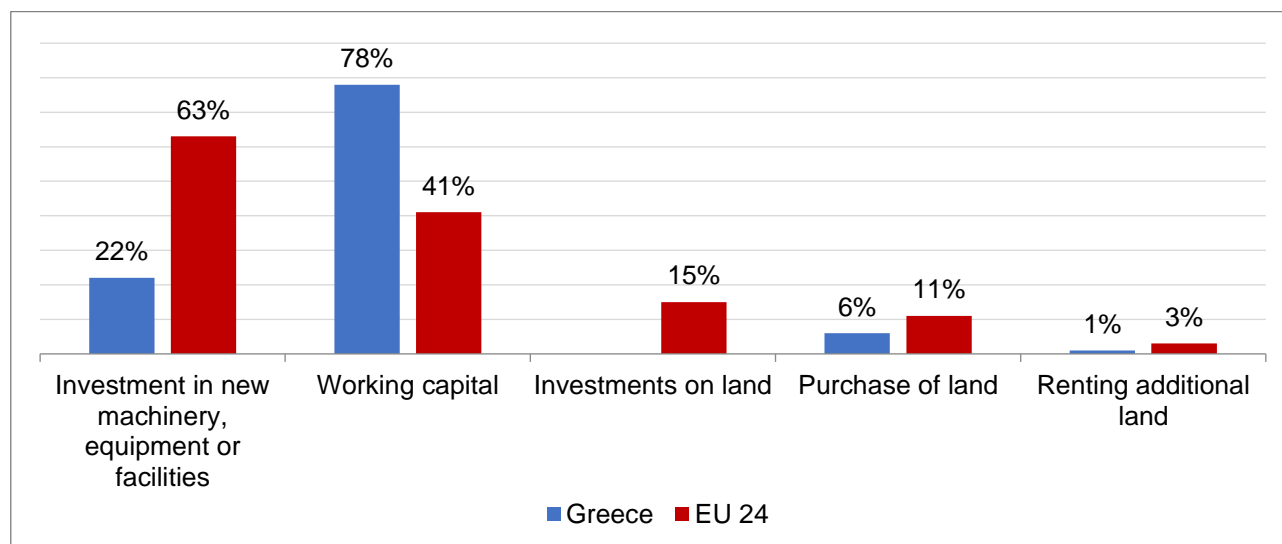
¹⁷ See Section 2.2.2 for more details.

¹⁸ Capital controls were introduced in Greece in June 2015, when Greece's government came to the end of its bailout extension period without having come to an agreement on a further extension with its creditors and the European Central Bank decided not to further increase the level of its Emergency Liquidity Assistance for Greek banks. As a result, the Greek government was forced to immediately close Greek banks for almost 20 days and to implement controls on bank transfers from Greek banks to foreign banks, and limits on cash withdrawals (only EUR 60 per day permitted), to avoid an uncontrolled bank run and a complete collapse of the Greek banking system. The capital controls were gradually reduced until their complete removal on September 1, 2019.



- Beekeepers have a long selling cycle for their produce (up to 1.5 years).¹⁹ This means that their short-term financing needs are often limited and are hardly ever covered by working-capital loans from banks. In many cases, honey factories or other intermediaries in the value chain take up a lending role.

Figure 4: Purpose of bank loans in the agriculture sector, 2017



Source: *fi-compass* survey.

The need for investment in new machinery, equipment or facilities is the second largest driver of the demand for finance. However, at 22%, the figure is significantly below the EU 24 average of 63% (Figure 2). This finding explains why, as discussed for chapter 2.2.2, the demand for short-term loans by Greek farmers is higher than their demand for medium and long-term loans. It also suggests that the recent growth in investment shown in Figure 3 may have been financed by the farmers' own funds rather than formal credit. The growth in investment in new machinery, equipment or facilities might also be attributed to the availability of RDP investment support for those assets.

As far as investment finance is concerned, interviewees responded that modernisation and compliance with standards are the main demand drivers:

- Livestock farms typically seek loans for improving animal welfare, or modernising equipment for feeding, milking, etc. They sometimes need to buy transport equipment and renew their breeding livestock.
- Arable crop farms mainly make investments in purchase of modern equipment for cultivation, such as soil tillage, tractors, seeding, sprayers and harvesting. The purchase of land is rare.
- Permanent crop farms, including grape growers, invest in modern equipment for cultivation, such as soil tillage, seeding, sprayers and harvesters. Old vineyards are not regularly replaced with new vines or propagated. The purchase of land is also rare.

The extent of the indebtedness of Greek farms might constrain access to finance, although no sound data is available. The available data fail to provide a clear answer as to whether the ongoing repayment of debt still dampens the demand for finance. Based on the Central Bank of Greece, the liability per farm amounted to EUR 1 800 in 2017,²⁰ which seems to be a manageable figure if every farm had taken out loans. However, the farmers who have borrowed are fewer than the total number and the anecdotal evidence, based on bank interviews, shows that some of them face difficulties making repayments.²¹

¹⁹ Pittas, 2019, and interview.

²⁰ The 2017 bank portfolio in agriculture, forestry and fisheries was EUR 1 233 million. Dividing by the 684 950 farms is EUR 1 800. Please Section 2.3.2 for further details on lending to agriculture.

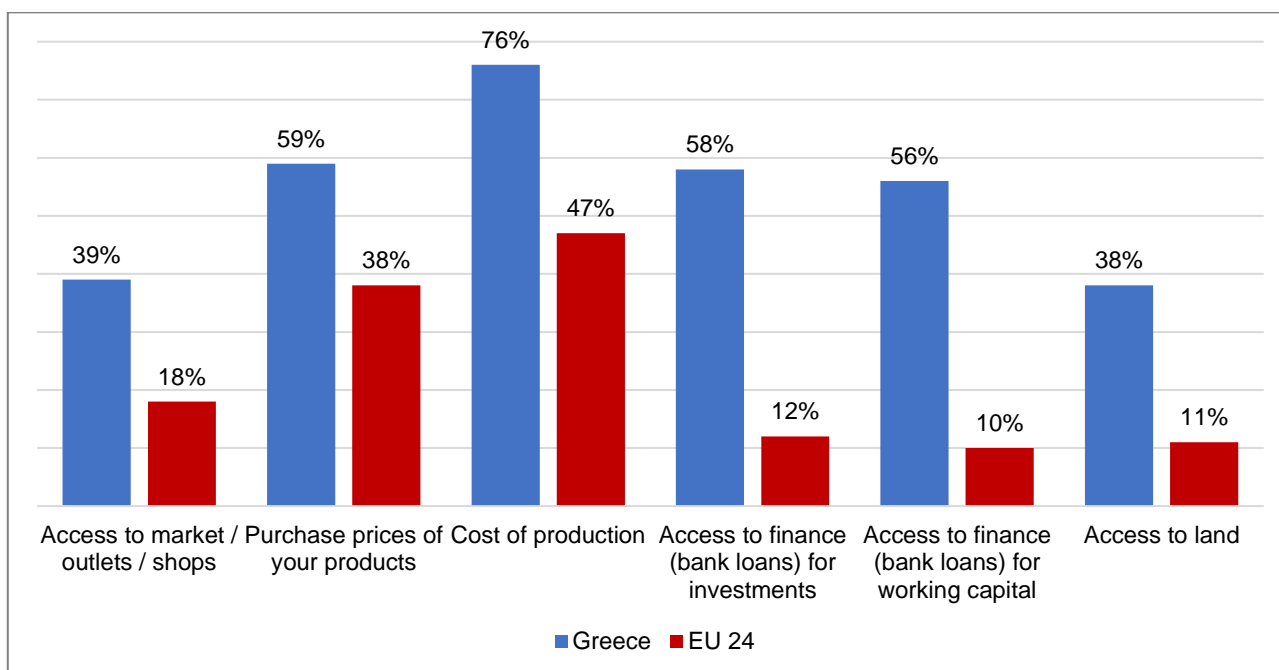
²¹ Using FADN data on assets and liabilities does not, in the Greek case, provide further insights as data for many indicators was not available. The data also does not provide much insight into the structure of assets and liabilities of



There is very limited demand for finance to purchase land (Figure 4), even though this is slowly changing. This is because agriculture land is easily rented but not easily sold, for socio-economic reasons. Greek landowners, and especially urban dwellers, are often reluctant to sell their land. This also translates into selling prices that are higher than what the normal market value would be. In addition, nearly 90% of the pastureland is owned by the state and leased out to livestock farmers. All of this, combined with the 10% limitation for using EAFRD support for buying land (through the RDP support), leads to a more subdued demand for land investments and to a higher demand for working capital, as many farmers need to pay (high) rent for the land they cultivate. According to the experts interviewed in the context of this study, rental prices range from EUR 100 per ha to EUR 900 per ha, depending on the type of land, its location, fertility, size, and the local weather and climate conditions.

Greek farmers reported facing more difficulties than any other EU 24 country. The five main concerns to Greek farmers are production costs (76%), the purchase price of production (59%), access to loans for investments (58%) and access to loans for working capital (56%). The concerns regarding access to finance for investment and working capital are substantially higher compared to the rest of the EU 24, where it is only 12% and 10%, respectively (Figure 5). This is the result of having a very restrictive financial system for many years, which still is not ready to fully embrace the agriculture sector.

Figure 5: Difficulties experienced by farmers in 2017



Source: *fi-compass survey*.

Greek farmers benefit greatly from CAP payments. Agriculture benefits from CAP support through Pillar I, financed entirely from the EU budget and consisting, principally, of direct payments and market support, and Pillar II, co-financed with national resources and consisting of numerous measures aimed at increasing its competitiveness.

In 2018, total agriculture support in Greece from the CAP amounted to EUR 2.8 billion. Of this, direct payments were the most important part of CAP funds (EUR 2.04 billion, representing 72.6% of total subsidies for the country), followed by RDP support (EUR 0.7 billion, representing 24.9%) and market measures

the different sub-sectors (mainly due to a lack of data). The Central Bank data, compiled from bank sources, appear to be more reliable in this respect.



(EUR 0.06 billion, representing 2.5% of total support).²² Most of the market measures supported the fruit and vegetable sector (29.2%), followed by wine (21.2%).²³

The availability of CAP direct payments has significantly contributed to improving farmers' access to finance, as the support impacts the farmers' repayment capacity for bank loans (being a de-facto guarantee for repayment) and, thus, influences the amount that can be borrowed from banks. The direct payments particularly enhance access to short-term financing as they can serve as collateral. Direct payments have also helped to sustain farmer's incomes and to keep them in business. They have also enabled more farmers to invest in the modernisation of their business.

As for the RDP, the four biggest RDP measures in budgetary terms (total public funding) are:

- EUR 1 409 million allocated for Measure 4: Investments in physical assets;
- EUR 452 million allocated for Measure 6: Farm and business development.

The RDP broadly defines investment trends in Greece. According to interviews conducted, the provision of investment support grants is very important for farmers to undertake investments. When a grant is obtained, the farmers often provide an important part of the 'own resources' through bank lending²⁴, whereby the approval of a grant leads to additional demand for bank finance. In addition, obtaining investment support greatly influences the farmers' possibilities of having a loan application approved by a bank. Particularly in the years of the financial crisis, banks were strictly following their loan policies and farmers that could not provide the required collateral levels, or could not count on the RDP support, did not receive a loan.²⁵

Almost half of the requests for RDP investment support could not be supported (Table 3). The importance of securing RDP investment support in order to undertake investments has led to a high demand from farmers, and the budget available has not been sufficient to secure financing for all applicants fulfilling eligibility criteria. By the end of 2019, EUR 316 million had been allocated to grant calls for sub-measure 4.1 'Support for investments in agriculture holdings', while a total of EUR 933 million was requested by all submitted applications (15 364 applications; before administrative checks). Considering the total initial demand (before administrative checks, see (Table 3), it can be concluded that a grant request of EUR 617 million was not satisfied by the available grant budget under the calls.

For sub-measure 6.1 'Business start-up aid for young farmers', EUR 268 million had been allocated to calls and 15 585 applications were received representing a total EUR 327 million. Considering the total initial demand (before administrative checks, see (Table 3), it can be concluded that a total grant request of EUR 59 million was not met by the budget available for all calls by the end of 2019.

²² European Commission, 2019.

²³ Ibid.

²⁴ For investments that are benefitting from RDP support, the typical combination is 50% grant, 25% own equity (including resources from friends and family), and 25% loan (although there may be differences in the breakdown depending on the region). However, in order to receive the grant, farmers need to have completed part of the investment, thus forcing them to seek advance funding from other sources. Interviews with agriculture and bank stakeholders, 2019.

²⁵ Greek Managing Authority for Rural Development Program, 2019.



Table 3: Greece: RDP 2014-2020 implementation data on sub-measures 4.1 and 6.1, total public finance, by the end of 2019

Sub-measure	Number of all submitted applications under the grant calls	Total support requested by all submitted applications (EUR million)	Number of approved and supported applications under the grant calls	Budget made available under the grant calls (EUR million)	Amount requested not being supported (EUR million)
4.1 Support for investments in agriculture holdings	15 364	933.4	8 182	316.0	617.4
6.1 Business start-up aid for young farmers	16 275	326.5	15 585	267.7	58.8

Source: EAFRD Managing Authority, 2019.

Note: The 'Total support requested' and the 'Amount requested not being supported' are calculated based on all received applications before any administrative check regarding eligibility or selection criteria have taken place. Applications that have not been approved could have been non-eligible, and/or with insufficient or missing information not allowing for their evaluation, and/or with insufficient value-added, and/or ranked at a place for which the budget under the call was no longer available.

Based on the RDP support that is expected to be provided in the next 2-3 years (2019-2021), **the minimum prospective demand for long-term loans in the agriculture sector is estimated at EUR 130 million.**²⁶ Higher shares of this demand for long-term finance are expected in the regions of Central Macedonia (almost 1/3 of total demand), followed by Thessaly, Western Macedonia, Eastern Macedonia and Thrace, Western Greece and Sterea Ellada. Demand in Crete, Peloponnesus, and Epirus is likely to be more subdued, and even weaker demand is expected in the Aegean Islands, Attica and the Ionian Islands.²⁷

Many young farmers are helped through the start-up support available from the RDP, but support levels are considered low. Young farmers are mainly supported through RDP sub-measure 6.1, and young farmers and new entrants primarily undertake investments thanks to this support. By the end of 2019, the RDP provided more than 15 000 young farmers with an average support of about EUR 17 200 per farmer. This is an important help, but not enough to jumpstart a sustainable holding.²⁸

An ex-ante assessment for the use of EAFRD financial instruments in 2014-2020 has been carried out to identify areas where the potential use of financial instruments could be beneficial for farmers and agri-food enterprises in the 2014-2020 programming period.²⁹ The key findings are summarised below.

²⁶ This estimate is based on the loan demand of the already submitted RDP applications for investment measures. The total investment amount included in farmers' applications for sub-measure 4.1 is EUR 265 million but 40% of the 15 000 proposals do not include any loans. In practice, farmers will need to pre-finance the investments until they receive the RDP grants payment. In addition, many farmers who have not included loans in their applications will eventually ask for credit once their applications are approved.

²⁷ Managing Authority for investment in Processing Units, 2019.

²⁸ Greek Managing Authority for Rural Development Program, 2019.

Under the previous RDP (2007-2013) Greece established its first EAFRD financial instrument, The Agricultural Entrepreneurship Fund (Tameio Agrotikis Epixeirimatikotitas-TAE).



Main findings of the assessment of the potential use of financial instruments in Greece in agriculture – A study in support of the ex-ante assessment for the deployment of EAFRD resources through financial instruments during the 2014-2020 programming period³⁰

- The drivers of demand for finance in agriculture are the modernisations of production and the application of new methods across the value chain.
- More specifically, farmers need:
 - Working capital for short-term needs, mainly for the purchase of agriculture inputs (up to one-year loans, typically ranging from EUR 10 000 to EUR 25 000);
 - Financing for medium and long-term investment plan needs. This mainly relates to the purchase of equipment (machinery) and other investments in fixed assets (land purchases, plant extensions, etc.). The average duration of the loans that meet these needs is around eight years.
- Farmers and micro agri-food enterprises feel discouraged when seeking bank finance, as they perceive a lack of willingness on the part of the banks in providing such funding. In addition, farmers feel that banks do not make the terms and conditions for lending clear enough.
- A key driver for the difficulties in accessing finance was the economic crisis. This caused banks to mostly stop lending money, even to healthy businesses. Further, farmers' assets are already mortgaged for loans granted in previous periods, mainly by the former Agricultural Bank. Another reason is that many farmers lack sufficiently high levels of own equity.
- Young farmers are constrained in accessing finance as they do not have a track record in the banking system.
- Agri-food enterprises mostly sought financing to purchase equipment and to finance working capital.
- It is mostly micro and small-sized agri-food enterprises, which have difficulties in accessing finance, particularly for medium and long-term lending.
- The key difficulties in accessing finance for agri-food enterprises were the interest rate level and the high levels of bureaucracy.
- The financing gap for farmers is estimated to be between EUR 2.2 billion and EUR 2.6 billion, while the financing gap for agri-food enterprises is estimated to range between EUR 0.96 billion and EUR 1.5 billion.
- The implementation of the following financial instruments may help to close the financing gap:
 - a risk-sharing micro-loan instrument to (i) reduce collateral requirements, (ii) reduce loan interest rates, (iii) lower the cost of guarantees, and (iv) potentially provide longer grace periods or allow deferred repayment.
 - a first-loss portfolio guarantee instrument to (i) reduce collateral requirements, (ii) reduce loan interest rates, as a consequence of a lower risk profile, and possibly increase the maturity of loans, (iv) lower the cost of guarantees, and (v) potentially provide longer grace periods or allow deferred repayment.
 - a co-investment facility (equity financing instrument).

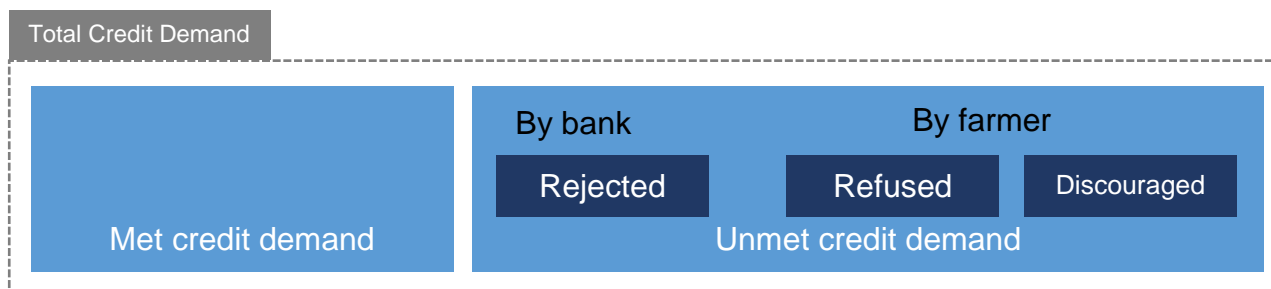
³⁰ EIB, 2018, Assessing the potential use of financial instruments in Greece in agriculture - A study in support of the ex-ante assessment for the deployment of EAFRD resources through financial instruments during the 2014-2020 programming period, Final report.



2.2.2. Analysis of the demand for finance

The potential total demand for finance combines both met and unmet demand. The met demand consists of the value of all applications for finance, which were accepted by the financial institutions in the relevant year. The unmet demand consists of the assumed value of applications rejected by a financial institution, offers of credit refused by farmers, alongside cases where farmers are discouraged from applying for credit due to an expectation of rejection or refusal (Figure 6).

Figure 6: Schematic overview of the demand side of agriculture



Source: Ecorys, 2019.

Based on the results of the *fi-compass* survey, the unmet demand for the agriculture sector in Greece is estimated at EUR 26.6 billion.³¹ The high number stems from the high share of farmers being discouraged from applying for finance in Greece, approximately 50%. The analysis shows that while unmet demand is mostly concentrated on small-sized farms, it is more or less evenly spread across all financial product types.

Greek farmers are slightly more active in seeking financing than the EU 24 average, but 20% of all farmers relied on finance from private individuals, while only 11.9% applied for finance from banks. Financing from private individuals include loans provided by friends and family, as well as informal lending provided by input suppliers. The total value of this type of financing is estimated to be about EUR 314 million. This figure is based on the assumption that the average private loan amount is EUR 5 000 (given that family and friends can usually only provide small amounts).³²

Only around 30% of the Greek farmers reported having enough own funds and therefore not having a need to apply for finance, compared to the EU 24 average of 75%. The low share of farmers that applied to banks for finance in 2017 - 11.9% - compared to 16.6% for the EU 24, is despite the finance needs of Greek farmers being much higher. The poor relationship between banks and farmers, combined with the lack of trust by farmers, contribute substantially to this outcome.

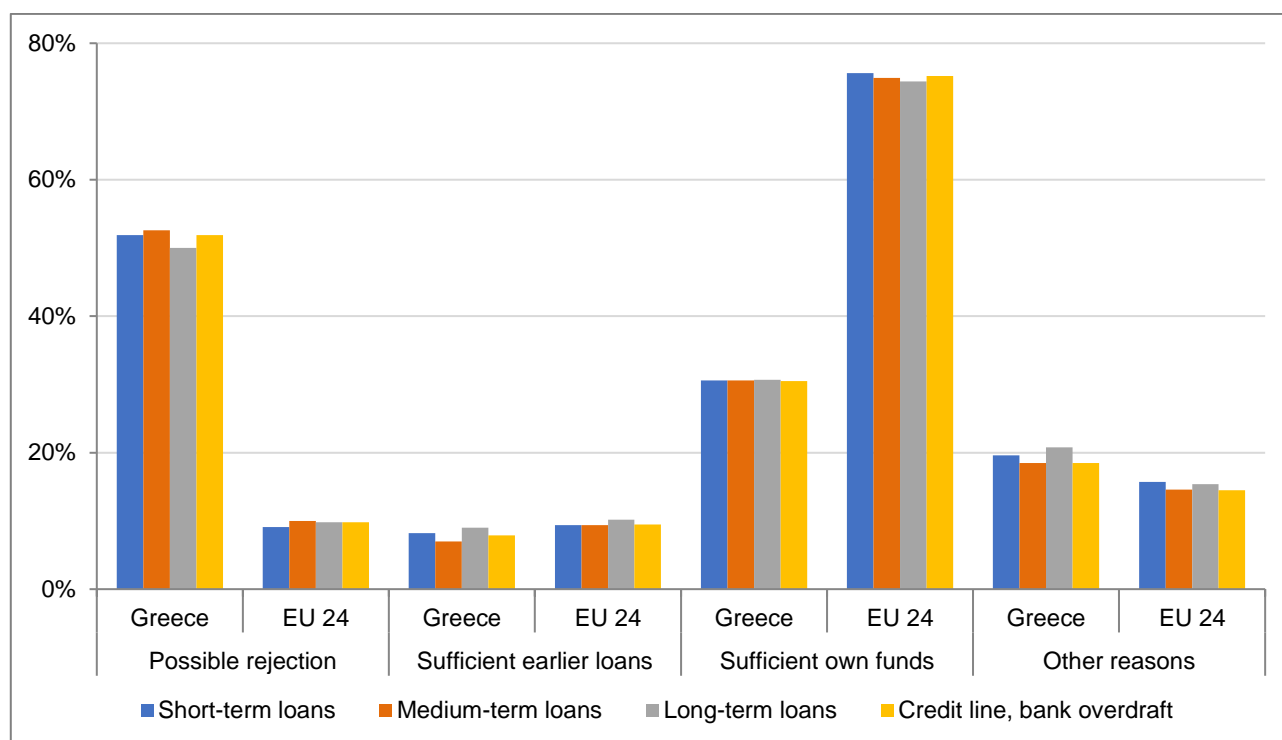
A fear of rejection was the key reason why Greek farmers did not apply for a loan in 2017. According to the *fi-compass* survey, more than 50% of Greek farmers pointed to this reason, compared to around only 10% for the EU 24 average (Figure 7). This finding was further validated by interviewees, where farmers revealed that they had not been actively approaching banks for finance in recent years, and that banks were staying risk-averse towards the sector and were requiring high and liquid collateral, even for short-term working capital loans. Farmers have a fear of rejection because they believe they may not fulfil the banks' criteria (in terms of profitability indicators, repayment capacity, or accounting requirements) or because they believe banks' view their business plans as being weak. In addition, as the banks were reluctant to provide credit in previous years due to their own liquidity constraints following the financial crisis, farmers commonly believe that loans are still hard to secure as they are not necessarily the key target group for banks. Farmers therefore did not want to spend time filling in application forms, providing all the necessary administrative documents, and negotiating with banks (as they have little bargaining power) when the likelihood of receiving a loan was considered very low.

³¹ If discouraged farms are not taken into account, the unmet demand is estimated to be EUR 1.3 billion.

³² Author's calculations.



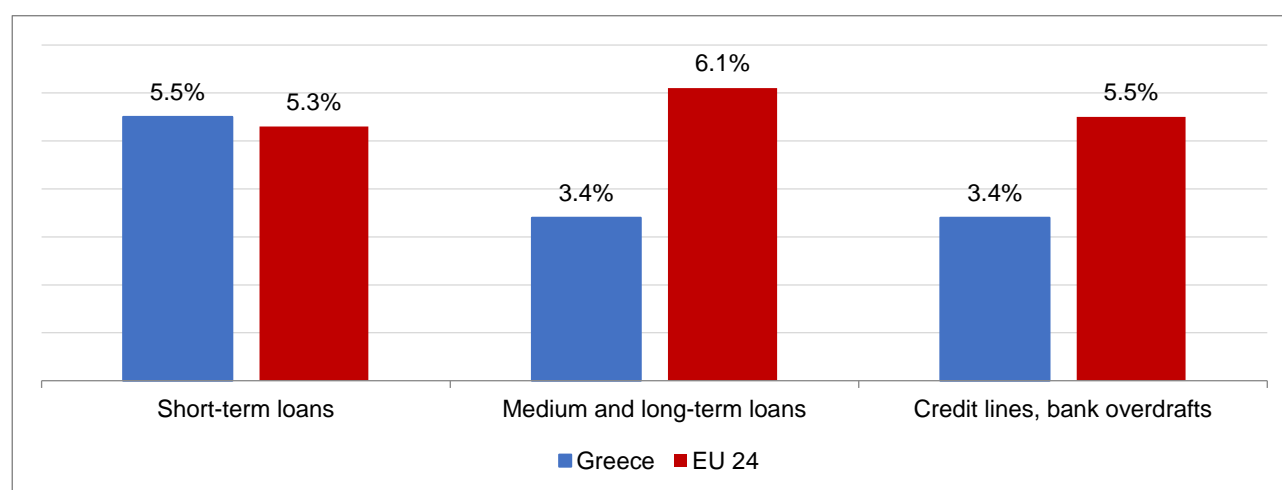
Figure 7: Reasons for not applying for loans in the agriculture sector in 2017



Source: *fi-compass* survey.

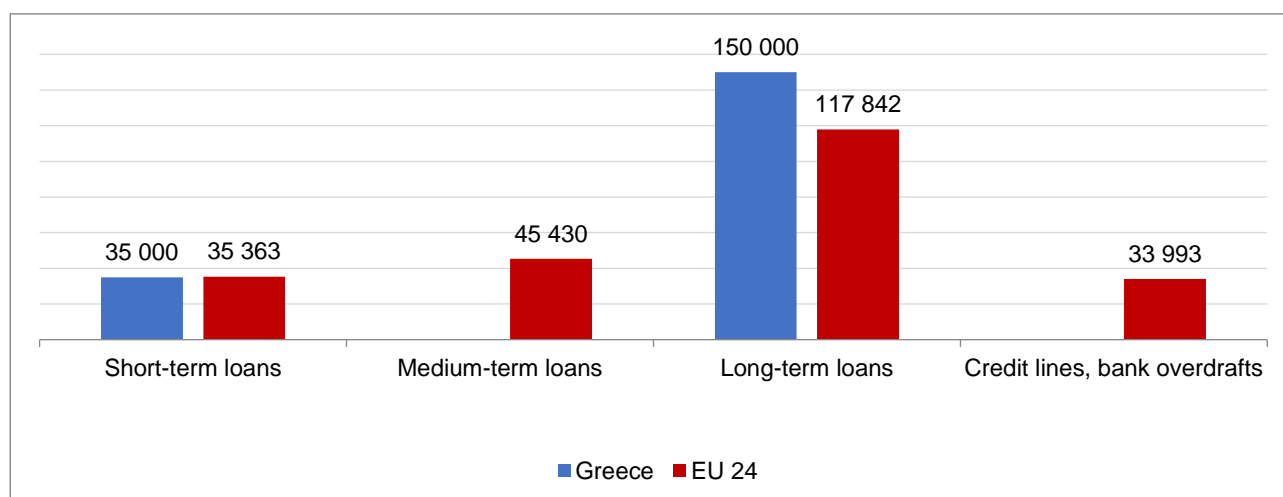
When applying for finance, Greek farmers mainly seek short-term loans. About 5.5% applied for short-term loans (under 18 months), while only 3.4% applied for medium and long-term loans (over 18 months and over 5 years, respectively) and credit lines and bank overdrafts (Figure 8).

Figure 8: Farms applying for finance in 2017, by financing product



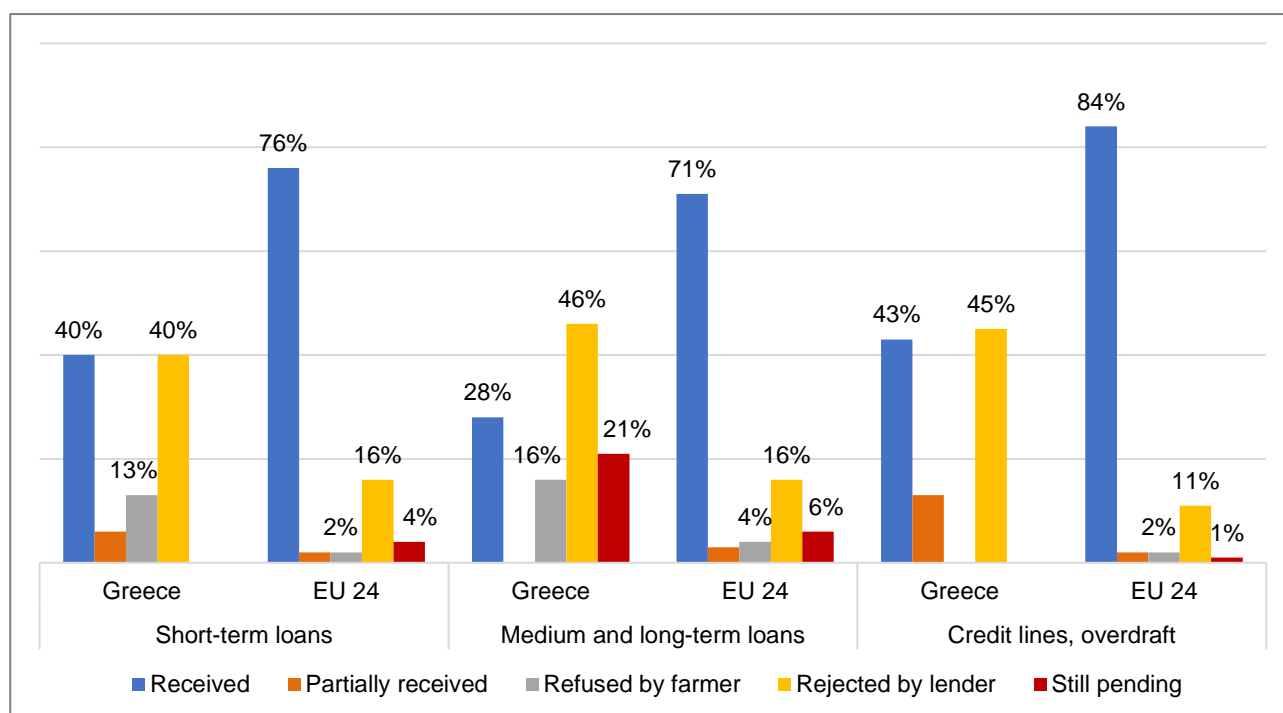
Source: *fi-compass* survey.

The median loan amount for long-term loans of Greek farmers is higher than for the EU 24 average, whereas for short-term loans, the median loan amount is comparable. According to the *fi-compass* survey, the median loan amount for short-term loans taken out by Greek farmers was around EUR 35 000 (Figure 9). The average long-term loan amount was EUR 150 000, which was slightly higher than the EU 24 average of EUR 117 842. With regard to long-term loans, some farmers' representatives quoted high interest rates as the reason for the weak demand.

**Figure 9:** Median loan amount, 2017, EUR

Source: fi-compass survey.

On average, the rejection rates for Greek farmers are substantially higher than the EU 24 average, with almost 50% of applications being rejected across all products (Figure 10). Only about 40% of applications for short-term loans were accepted in full, compared to over 75% for the EU 24. For medium and long-term loans, only 28% were accepted in full, compared to 71% for the EU 24. For credit lines and overdrafts, 43% were granted in full, compared to 84% for the EU 24 average. This data clearly shows the market misbalance and the need for an adequate financial instrument that can trigger a different behaviour from the banks linked to higher and better support for agriculture.

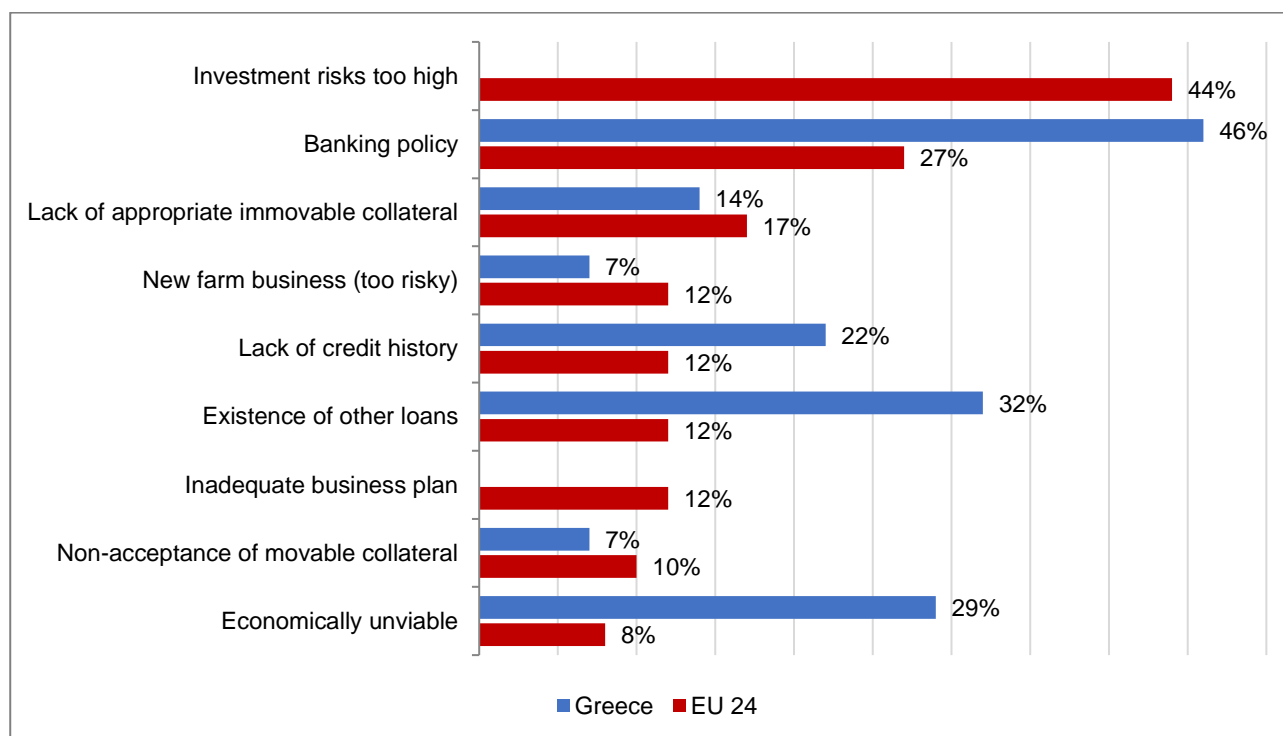
Figure 10: Result from applications for finance in the agriculture sector in 2017

Source: fi-compass survey.



The main reason farmers have their loan applications rejected is due to bank policy (reported by 46% of farmers), according to the *fi-compass* survey. Banks do not offer repayment flexibility (in line with the farm's production cycle) and options for grace periods, and they refuse to provide all amounts requested. For the EU 24 average, bank policy as a reason for rejection was reported by only 27% of the farmers (Figure 11). Other reasons why Greek farms' access to finance is restricted include them having other loans previously taken (32%), banks viewing their business as uneconomically viable (29%), and their lack of credit history (22%).

Figure 11: Reasons for applications' rejection in the agriculture sector in 2017



Source: *fi-compass* survey.

According to the banks, the reasons why they reject loan applications from farmers include:

- the high level of debt of farmers, which means that their repayment capacity for a new loan is low,
- farmers' lack of collateral,
- farmers' lack of business and management skills, and
- the age of farmers (with many over 65 years old) means that banks are unable to supply medium and long-term loans.

These reasons are different to those provided by the farmers, as discussed previously, and shows how divergent are the expectations of the two parties.

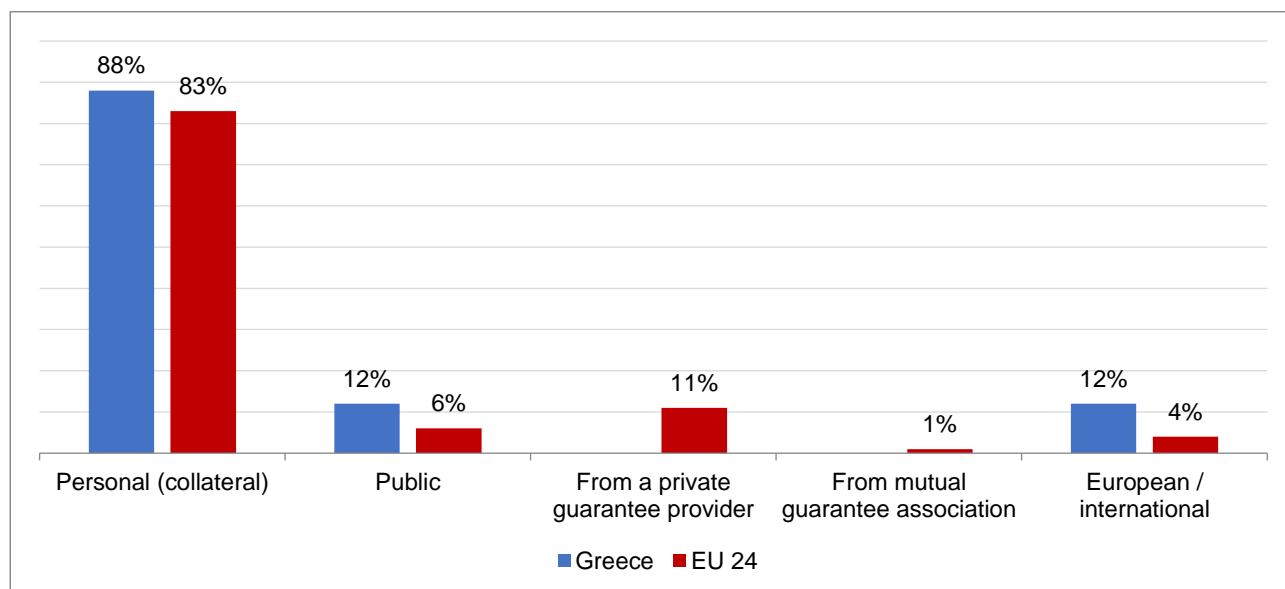
Banks said that due to the financial crisis, **a large share of farmers still have outstanding debt that they have to pay off**. Their debt levels would prohibit them from being able to repay an additional loan, especially when farmers are struggling to repay their existing loans on time.

In Greece, banks lend against the provision of collateral and many farmers generally lack such assets, both in terms of value and availability. Much property has already been mortgaged and thus cannot be used to secure other loans. According to the *fi-compass* survey, around 48% of the applicants were asked to provide collateral, and in 88% of these cases the collateral provided was personal collateral. This compares to 83% for the EU 24 average (Figure 12). However, only 27% of the Greek farmers were asked to provide collateral



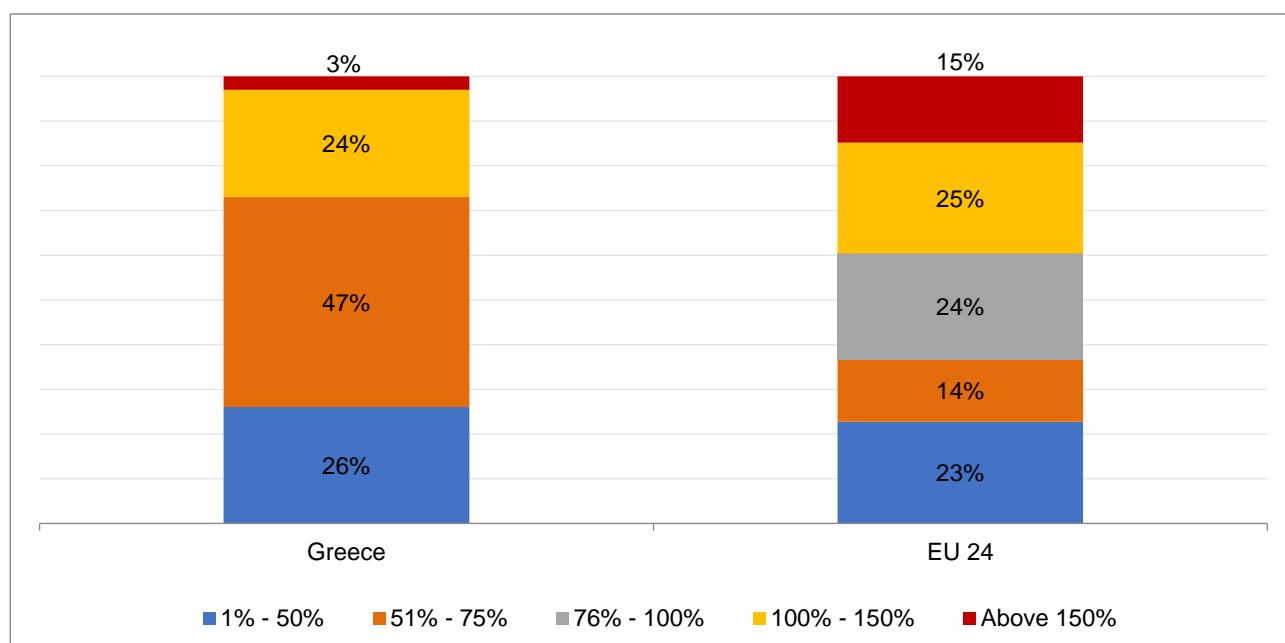
valued at over 100% the loan amount, which is less than the EU 24 average of 40% (Figure 13).³³ Importantly, the data shows that Greek banks could be more interested in using guarantees from an EU-funded instrument, compared to the rest of the EU 24.³⁴

Figure 12: Information related to guarantees requested by Greek agriculture producers, type of collateral required, 2017



Source: *fi-compass survey*.

Figure 13: Information related to guarantees requested by Greek agriculture producers, collateral value asked, 2017



Source: *fi-compass survey*.

³³ It shall not be forgotten that not many farmers in Greece receive long-term finance (Figure 9).

³⁴ To be noted that in 2017 only few EAFRD-funded financial instruments were made available to farmers across the EU, see: European Commission, 31 December 2017, financial instruments under the European Structural and Investment Funds. Available at: https://www.fi-compass.eu/sites/default/files/publications/EC%20summary_data_financial_instruments_2017.pdf.



As part of the client analysis, **banks also need to understand if the client has the necessary business and management skills to run the farm profitably**. Banks stressed that many farmers, and particularly older farmers running small-sized farms, lack those business management skills. They are unable to provide the key data necessary to allow banks to make an accurate assessment of the viability of their enterprise. Interviews supported the need for specific financial advice within or outside the farm advisory system as lack of information and advice on financial issues, including information on how to apply for bank loans, were all areas mentioned.

Banks also consider the age of the borrower when making lending decisions. Farmers that are already 65 years old or older have much lower chances of receiving a medium or long-term loan. This is because banks fear that they might not be able to recover their money in the case of illness or death. As a result, banks are reluctant to finance farmers older than 60 years old.³⁵

However, young Greek farmers also have a much lower chance of receiving loans compared to their older peers. The share of viable young farmers with rejected applications is 43% and the share of farmers who were discouraged from applying is 19%. Young farmers tend to be rejected by banks when applying for finance because they are considered high-risk borrowers or because they lack credit history.

35 Interviews with financial institutions, 2019.



2.3. Analysis on the supply side of finance to the agriculture sector

This section provides an overview of the financial environment in which the agriculture sector in Greece operates. It describes the main financial products offered, including any currently operating financial instruments targeting agriculture, with national and/or EAFRD resources. The section draws its information from interviews with financial institutions, as well as from national statistics and the FADN database.

An attempt is made to give a description of the general conditions for accessing finance, such as interest rates and requirements for collateral, and the availability of funding for agriculture producers. Potential differences in the availability of financial products across different types of agriculture producers are also reviewed and analysed.

Key elements on the supply of finance to the Greek agriculture sector

- The main providers of finance to Greek farmers are commercial and cooperative banks.
- Piraeus Bank alone has an approximate share of 85% of the Greek agriculture finance market.
- Greek financial institutions offer loans to farmers for both investment and working capital needs, and EU funded financial instruments are also available. However, when assessing loan applications banks require information on approvals of supported projects under the RDP grants, or other investment promotion schemes, to be presented.
- Cooperatives and some processors use contract farming,³⁶ covering 50-80% of the working capital needs for farmers who are their members, or have contracts for delivery of products to processors.
- Following the financial crisis that lasted until 2017, Greek financial markets are improving. While there are accelerating repayments of outstanding loans, the sector still appears to be deleveraging.
- Banking policies remain restrictive. For individual farmers it is very difficult to negotiate loan terms and conditions that are favourable or which are tailored to their business.
- The total outstanding loan volume to agriculture was EUR 1.2 billion at the end of 2019. For the last six years, the outstanding loan amount has been decreasing slightly.
- Constraints to the supply of finance to the agriculture sector include: (i) lack of competition on the agriculture finance market, (ii) banks' limited interest in a sector that they consider risky, (iii) a lack of a well-structured business planning for some of the investment projects brought forward, and (iv) a lack of collateral in the hands of farmers.

2.3.1. Description of finance environment and funding availability

2.3.1.1. Finance providers

The main finance providers for Greek farmers are commercial banks and cooperative banks. The banking sector is concentrated and is dominated by a few banks. After a series of mergers and acquisitions, following the Greek government debt crisis, the banking sector has consolidated into four main banks that control more than 90% of the overall finance market. With respect to agriculture financing, Piraeus Bank alone controls 85% of the agriculture finance market. In addition, three cooperative banks are also active, as listed in Table 4. All banks have a specific approach and strategy for the agriculture sector, but cooperative banks show a more social and less risk-averse approach.

³⁶ Contract farming can be defined as an agreement between farmers and off-takers for the production and supply of agricultural products under forward agreements, frequently at predetermined prices. The arrangement also invariably involves the purchaser in providing a degree of production support through, for example, the supply of inputs and the provision of technical advice. The basis of such arrangements is a commitment on the part of the farmer to provide a specific commodity in quantities and at quality standards determined by the purchaser and a commitment on the part of the company to support the farmer's production and to purchase the commodity. Source: www.fao.org/3/y0937e/y0937e02.html.

**Table 4:** List of banks supporting agriculture business in Greece, 2019

Commercial banks are:	Active cooperative banks are:
Piraeus Bank	Pancretan Cooperative Bank
National Bank of Greece	Cooperative Bank of Karditsa
Eurobank Ergasias	Cooperative Bank of Thessaly
Alpha Bank	

Source: EIB, 'Assessing the potential use of financial instruments in Greece in agriculture', Final Report and own research.

Because **Piraeus Bank** acquired Agricultural Bank, including the bank's portfolio and historical client records, the majority of farmers have loans there. This includes many non-performing debts, collateral and property mortgages.

As for **Eurobank Ergasias**, it mainly finances processing companies and is less involved in the primary production sector. Nevertheless, the bank recently entered the agriculture sector with the offer of a Farmer's Card³⁷ (**Agrokarta in Greek**), upon invitation by the Ministry of Agricultural Development and Food. In contrast to the other systemically important banks, Eurobank does not have contract farming programmes, but is interested in offering this type of programmes in the future.

Alpha Bank offers a Farmer's Card, direct payments, and flexible contractual entrepreneurship programmes. The agriculture sector remains a new field for Alpha Bank, which has a small market share and provides little financing to it.

The **National Bank of Greece** has a small market share in the financing of agriculture. Under the bank's Small and medium-sized enterprises (SME) Department, there is an agriculture branch that offers a Farmer's Card, but its main activity is contract farming and livestock production.

As for cooperative banks, **Pancretan Cooperative Bank** has a significant market share on the island of Crete (14% of deposits in total). In terms of financing SMEs, the bank's portfolio was EUR 858.7 million, out of a total of EUR 1.63 billion, in 2016. During 2016, the bank's portfolio for farming and livestock production was 2% and reached EUR 39.9 million.³⁸ Other sectors funded by the bank include amongst others large-sized enterprises in the energy and tourism sector.

As for the **Cooperative Bank of Karditsa**, it finances SMEs on a large scale, including in the agriculture sector. The bank focuses on sectors with small production variations, such as cotton production. Cereal producers operating on a larger scale are not in its scope.

Lastly, there is the **Cooperative Bank of Thessaly**, whose objective is to finance its members in the spirit of improving and protecting industry and craft, trade, agriculture, livestock production and fishing, and generally all stages of these economic activities. During 2015, the bank's portfolio for farming and livestock production reached EUR 3.1 million, out of a total of EUR 51.4 million in loans to SMEs.³⁹ This was 6% of the total SME loan portfolio.⁴⁰

37 The Farmer's Card provides short-term financing for farmers against the security of direct payments.

38 EIB, 2018, Assessing the potential use of financial instruments in Greece in agriculture – A study in support of the ex-ante assessment for the deployment of EAFRD resources through financial instruments during the 2014-2020 programming period, Final report.

39 Central Bank of Greece, 2015, Annual notes.

40 EIB, 2018, Assessing the potential use of financial instruments in Greece in agriculture - A study in support of the ex-ante assessment for the deployment of EAFRD resources through financial instruments during the 2014-2020 programming period, Final report.



Of the 3 000 agriculture cooperatives and 130 women's agriculture and agri-tourist cooperatives,⁴¹ **some provide loans to their members.**⁴² Based on the current price of an agriculture crop, they can finance farmers' working capital needs of up to 80% of the sales value. The average short-term loan is about EUR 18 000. Interviews revealed that cooperatives would be interested in wholesale borrowing, where they would obtain a loan from a bank and would then lend the proceeds to their members.⁴³

2.3.1.2. Financial products

Greek financial institutions offer loans to farmers for both investment and working capital needs, but with no great diversity, as shown in Table 5. There are about five different loan products available for Greek farmers with interest rates ranging in between around 5.5% (for contract farming programmes) and 8% (for investment loans for farming activities, facilities and equipment). The loan duration and financing amounts vary depending on the purpose of the loan and the financial capacity of the farmer.

In order to increase the supply of finance for working capital needs, banks, along with the Ministry of Agricultural Development and Food as well as the large-sized cooperatives, devised two further schemes: the 'Farmer's Card' and the 'Contractual agriculture scheme'. Both schemes aim to facilitate short-term funding and to enable farmers to prepare their farm campaigns. The Farmer's Card is open to any farmer, whereas the contractual agriculture scheme is usually available only through cooperatives, producer groups or processing units. These schemes often cover 80% of working capital needs and they use direct payments or output value as collateral.

The Farmer's Card competes with informal loans provided by upstream value chain actors. While the card performs well,⁴⁴ it does not perform as well as expected. This is because fertiliser and pesticide input suppliers provide informal financing to farmers by ensuring the purchase of the farmers' future production with a discount on the selling price of the produce.

41 Ifigeneia Douvitsa and Demosthenis Kassavetis, 2015, The Greek cooperative movement during the fiscal crisis.

42 In terms of production volume agricultural cooperatives have a small share of about 20% in the Greek market.

43 Interviews with cooperatives, 2019. This initiative is still in process of developments and no further details about its parameters have been disclosed in the course of the interviews.

44 Bank Interviews, 2019.

**Table 5:** Overview of financial products offered to farmers, 2019

Financial Institution	Piraeus Bank	National Bank of Greece	Eurobank Ergasias	Alpha Bank
Contract Farming Program	<ul style="list-style-type: none"> • Loan agreements with farmers and processors or aggregators. • Interest rate around 5.5%. • The range of the financing amounts is EUR 10 000 to EUR 60 000, depending on the holding. • Duration ranges from 6 to 12 months. • 22 000 agriculture holdings are being financed per year, on average. • EUR 700 million to 250 leading food companies and 2 000 farmers in total. 	<ul style="list-style-type: none"> • Farmers having contracts with a National Bank of Greece-partnered trading/manufacturing business, with or without the mediation of an agriculture cooperative. 		<ul style="list-style-type: none"> • Support of the whole agri-food value chain from production through to processing, up to the export of agriculture products. • Interest rate is variable depending on the relationship between the beneficiary and the bank (currently 6%-6.5%).
Farmer's Card	<ul style="list-style-type: none"> • Credit limit is linked to the amount of the CAP Pillar I direct payments that the producer receives. • No issuing costs for the card, no annual fee, no collateral required. 	<ul style="list-style-type: none"> • The funds are disbursed through the special Agrikarta Debit Mastercard. 	<ul style="list-style-type: none"> • Each card has a credit limit. • No interest rate at present. • Particularly for small farmers who must reapply for the card every year. 	<ul style="list-style-type: none"> • Direct payments to beneficiaries of the first pillar of the Common Agricultural Policy (CAP Pillar I).
Working Capital for Farmers (WCF)	<ul style="list-style-type: none"> • The applicants to WCF are key sector players. The credit line depends on the type of crops or livestock, and the size of the holding. • The duration is one year (plus a one-year extension option), and the total amount is up to 90% of the eligible credit line (CL). • Interest rate is variable for the entire term of the loan. 			
Farmers' Micro-finance	<ul style="list-style-type: none"> • Micro-finance up to EUR 5 000 to farmers to cover unpredictable expenses. • This applies to all kinds of agriculture holdings. • Interest rate is floating during the entire loan period. 			
Investment financing for Young/New Farmers	<ul style="list-style-type: none"> • Eligible beneficiaries are persons aged 19-50 years old who want to become farmers, whether they have received support from the RDP program. Interest rate is variable. • The loan amount varies from EUR 5 000 to EUR 150 000. • Maximum financing amount is up to: 80% of the estimated investment cost and 80% of estimated value of the mortgaged property. 			



Investment Loans for Farming Activities, Premises and Equipment	<ul style="list-style-type: none"> • The investment loan duration is up to 7 years for mechanical equipment and intangible assets, and up to 10 years for building premises and purchasing plots of land. • Interest rate is variable. Currently, the level of interest rate is 7.5%-8%. • The investment loan is given to the beneficiary, who receives 50% grant financing (public subsidy from the EAFRD / RDP or other instrument)) over the total investment amount. 			
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Source: Research, 2019.



Greek banks also provide products based on financial instruments that aim to improve the supply of loans. These include, the 2014-2020 EU programme for the Competitiveness of Enterprises and SMEs (COSME), the Employment and Social Innovation (EaSI) guarantee instrument, and the EAFRD financial instrument, which is currently (April, 2020) in its last phase before start of implementation.

COSME has no impact on agriculture finance in Greece. On the contrary, as of the end of 2018, the EaSI guarantee instrument had facilitated access to finance for 174 Greek SMEs in the agriculture, forestry and fishing sector for a total of EUR 3.3 million (representing 20.4 % of the total portfolio in Greece)⁴⁵.

The 2014-2020 EAFRD financial instrument is expected to, at least partially, unlock the investment and growth potential of Greek agriculture. Its creation was in 2018 after the managing authority undertook an ex-ante assessment for the potential use of financial instruments supported by the EAFRD and followed targeted coaching sessions offered by EIB (*fi-compass*), DG AGRI, and the European Commission. These two steps helped to create a new understanding of the matter and a new approach, in comparison to the one for the 2007-2013 period, by better addressing the local needs of farmers. According to the ex-ante assessment carried out, Greek farmers and SMEs in the agricultural and agri-food sectors face difficulties accessing financing provided by banks due to unfavourable terms and conditions (e.g. interest rate, maturity, collateral requirements). The sectors are heavily dependent on subsidies as well, more than the rest of the economy.

The Greek government has taken the necessary steps for the implementation of the EAFRD financial instruments in line with the recommendations of the ex-ante assessment with the objective of providing better access to finance for farmers and agri-food enterprises through credit risk protection to financial Intermediaries, via capped (counter-) guarantees for portfolios of newly originated loans or finance leases financing investments. The governance body for the monitoring of the activities of the new financial instrument is the Greek EAFRD RDP Managing Authority. In September 2019, a Funding Agreement was signed between the Managing Authority and the European Investment Fund (EIF) for the creation of an EAFRD fund-of-funds (FoF). According to the arrangements, EIF has been appointed as manager of the FoF for the implementation of one or more of the planned EAFRD financial instruments.

A first loss portfolio guarantee instrument (FLPG) for loans between EUR 10 000 and EUR 5 million, named **Rural Development Guarantees Fund**, has been established with EUR 80 million financial contribution from the Greek RDP 2014-2020. This amount is expected to be leveraged through selected financial institutions to a portfolio of loans up to EUR 400 million.

The main goals of the instrument are:

- to facilitate access to finance at better conditions (e.g. lower interest rates, reduced collateral, longer maturity and grace period) for the local Final Recipients;
- to provide capital relief to selected financial institutions in exchange for the commitment to build a portfolio of new debt-financing to Final Recipients; and
- to facilitate complementarity with grants.

In December 2019, a call for expression of interest was launched to select eligible financial institutions under the FoF. Financial Institutions will benefit from an 80% risk coverage of each final recipient transaction up to a guarantee cap amount, which is a function of the guarantee cap rate of up to 35%. The exact financing terms depend on the credibility and risk profile of each applicant. Financial institutions could respond to the Expression of Interest until 14 February 2020. The banks have submitted their applications and the implementation will start as soon as the Guarantee Agreements are signed, which is expected by Q2 2020.

This financial instrument will be implemented to cover the loan applications of farmers and agri-food businesses under the RDP sub-measures 4.1 and 4.2 and will support investment operations together with working capital. The instrument focuses on investments that would improve the overall performance and sustainability of the farms (e.g.

⁴⁵ Source: EIF, 2020.



to increase production, to create added value, to improve the quality of the products produced, to introduce innovative production methods and environmental sustainability of the holding) and investments in processing, marketing and development of agricultural products. In addition, the EU Commission has adopted a decision, due to the COVID-19 pandemic, to allow the possibility to cover stand-alone loans for working capital up to EUR 200 000 for farmers and agri-food businesses.

Furthermore, based on the findings of the ex-ante assessment, at the time of writing, the Greek government is in process of setting up a risk-sharing micro-loan instrument (loans of up to EUR 25 000) aimed at covering micro-loan applications to agriculture businesses. The Greek government has approved this financial instrument without the obligation for farmers to have a social security payments clearance certificate. The micro-loans disbursed to final beneficiaries will be co-financed *pari-passu* (e.g. 50/50) by the financial instrument and the financial intermediary. For the majority of Greek producers, an amount up to EUR 25 000 is deemed sufficient in average to cover the entire annual working capital needs for production (e.g. seeds, fertilisers, etc.).

Greek young farmers and agricultural companies (SMEs and Mid-caps) can also benefit from the European Investment Banks (EIB) loan programme⁴⁶ for agriculture and the bioeconomy with specific targets to support younger farmers. The programme launched in April 2019 as part of the joint EIB-DG AGRI ‘Young Farmers’ Initiative⁴⁷. This initiative aims to scale-up investment for the agricultural sector, long underserved by the banking system due to its higher perceived risk. The financing, channelled through intermediary banks, includes a window with favourable lending conditions for young farmers financing and aims to address many of the current shortcomings that farmers face (providing e.g. better terms for the loans to the farmers; lower interest rates; longer grace periods (up to 5 years) and longer maturity (up to 15 years); added flexibility, depending on the conditions, to respond to price volatility in the agricultural sector). As of May 2020, EUR 200 million of financing from the programme was already signed with the National Bank of Greece and Piraeus Bank⁴⁸ allowing with these loans to partially fill an important financing gap related also to young farmers’ access to finance. This partnership between the EIB and these two leading Greek banks⁴⁹ aims to transform agricultural investment across Greece. The new scheme is expected to support in total EUR 560 million of new investments by farmers, agribusiness, food and bio economy companies across the country (as EIB funding has to be matched by participating banks).

2.3.1.3. Description of financing market

In 2015-2016, the share of non-performing loans⁵⁰ (NPL) in agriculture has decreased significantly (Table 6). Based on data of the Central Bank of Greece, it can be seen that over a period of just three years (2016-2019), the share of NPL in agriculture declined by 9%, which is much faster than the decline of NPL for the total economy (only 6.4%). At the end of 2019, NPL in agriculture reached EUR 553.04 million.

46 In April 2019, the EIB and the European Commission announced nearly EUR 1 billion of financing for the agriculture and bio economy sectors across Europe. The sum will be matched by the implementing financial institutions, thereby mobilising close to EUR 2 billion of long-term financing for SMEs in the sector. The loans will be managed by local banks and leasing companies active across the EU and will include a minimum 10% window for farmers under 40. <https://www.fi-compass.eu/news/2019/05/eur-1-billion-europes-next-generation-farmers>.

47 Further information about the Initiative available at: <https://www.fi-compass.eu/publication/brochures/joint-initiative-improving-access-funding-european-union-young-farmers>.

48 EU Agriculture programme loan for SMEs: <http://www.eib.org/en/projects/pipelines/all/20190107>.

49 Further information available on <https://www.eib.org/en/press/all/2020-054-eib-national-bank-of-greece-and-piraeus-bank-launch-eur-560-million-agriculture-investment-scheme>.

50 A loan is classified as non-performing if the farmer (or any other borrower) has not paid interest, fees or instalments for more than 90 days, or if it is assessed to be unlikely that the borrower will fully meet its payment obligations without any collateral being realised.

**Table 6:** Evolution of NPL in the agriculture sector

	Agriculture	Total business loans
December 2015	58.8%	49.0%
December 2016	58.7%	49.7%
December 2017	53.5%	47.4%
December 2018	47.5%	44.7%
June 2019	49.6%	42.6%

Source: Bank of Greece, 2020.

The high levels of NPL for the whole economy was one of the factors that impacted the profitability and solvency of Greek banks, and their ability to source liquidity to finance the Greek economy. In addition, banks experienced deposit outflows, which further diminished their options for a quick recovery.

Against this background, and **after many recovery actions, Greek banks now appear to be following strict lending policies.** In interviews, it was mentioned that banks are unable to renegotiate terms and conditions, such as grace periods, repayment schedules, loan amounts or interest rate levels, to better meet the needs of their clients. The provided loans must be in line with the policies and procedures as banks fear that issuing too many loans to farmers not fully complying with the required thresholds (in terms of profitability, credit history or indebtedness) could result in more clients defaulting on their loans. This would in turn lead to higher provisioning expenses and possibly write-offs, resulting in slower portfolio rotation and smaller profits.

In addition, **commercial banks commonly require collateral, as well as a percentage of equity of around 25% (for each loan) to ensure that farms are not overleveraged.** The type of collateral requested by banks varies widely. It includes business property, urban property or cash contributions equal to the loan amount requested. Interviews with banks' representatives indicated that banks can also finance farmers' short-term needs without guarantees, by using the CAP direct payments farmers are expecting for the year, as collateral. These cases are limited to short-term loans and for small amounts of less than EUR 10 000. In the rare cases when large-sized producers are involved, additional requirements, such as sales contracts for future produce, could be imposed by the banks.

Compared to the rest of the economy, the average interest rates for the agriculture sector are slightly higher. Banks prefer to provide floating rate loans or loans of up to 1 year with fixed interest rates:

- Loans to SMEs usually have a fixed duration and an annual cost of 3.93% (excluding any charges).
- Loans of up to EUR 250 000 usually have a defined maturity, a cost 5.07% and require collateral.
- Loans ranging between EUR 250 000 and EUR 1 million usually have a defined maturity, a cost 4.10%, and require collateral.
- Loans above EUR 1 million usually cost 3.56%.⁵¹

While several service providers offer credit reporting services in Greece, a full scale credit bureau does not exist. The largest provider is Agrotikos Teiresias (a joint stock company), which was created in 1977 by the major Greek banks.⁵² It specialises in the collection and supply of credit profile data of corporate entities and private individuals, and in the operation of a risk consolidation system for consumer credit. There is no obligation to report to the credit registry and it is mostly used by banks.

⁵¹ Bank of Greece, 2019, Bank interest rates on new euro-denominated deposits and loans vis-à-vis euro area residents.

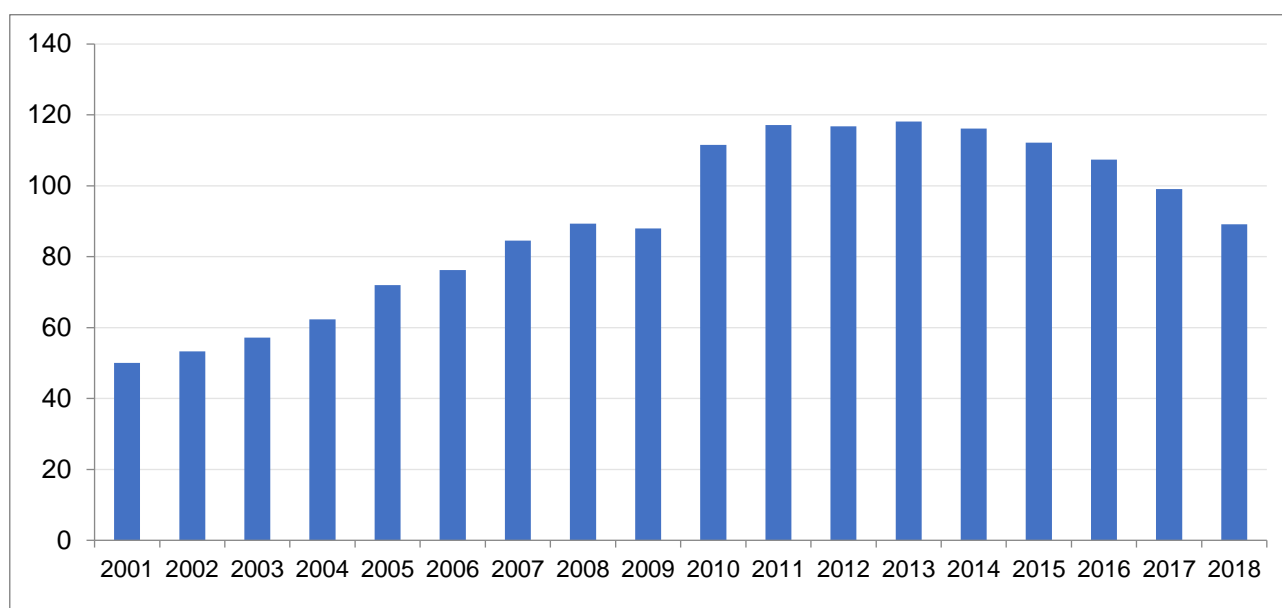
⁵² Agrotikos Teiresias abides by law 2472/97 on the 'Protection of the individual from the processing of personal data' and the relevant provisions of the Directive 95/46/EC. It further operates a Security and Information Quality in line with ISO 9001.



2.3.2. Analysis of the supply of finance

When analysing the supply of finance, Greece's recent and lengthy financial crisis (2009 to 2017) has to be taken into account. In recent years, the Greek banking system has lived through extremely challenging times. This has substantially constrained the supply of credit, as shown in Figure 14. For agriculture, the guaranteed support of the CAP direct payments has been a very helpful asset for farmers and banks, making it easier to secure short-term loans.

Figure 14: Domestic credit to the Greek private sector, 2001-2018, % of GDP



Source: IMF, 2020.

The supply of credit to agriculture – measured by outstanding loans – has been decreasing. The debt of the Greek agriculture sector, in the form of outstanding loan amounts, is shown below in Table 7. It also includes the annual percentage changes. The fact that outstanding loans have decreased in the period 2014-2019 by more than EUR 300 million (reaching EUR 1.2 million in 2019) demonstrates that the sector is still deleveraging. This accounts for the negative investment capital growth, a situation confirmed by interviewees. The decreasing portfolio reflects the increase of repayments and the overall improvement in the financial stability of the sector. Thus, the provision of financing may not have necessarily decreased. The fact that many farmers are able to repay their previous loans indicates that there has been an overall recovery in the agriculture sector. With this improvement, and with the forthcoming EAFRD support at the end of the 2014-2020 programming period, the financial sector expects the outstanding loan portfolio to start growing again in the coming years (as new loans would be larger and disbursed more frequently).

**Table 7:** Domestic MFI Credit to Domestic Non-Financial Corporations by Branch of Economic Activity in 2014-2019

End of Period	Total (non-financial corporations)		Agriculture	
	Outstanding amounts (EUR million)	Annual percentage change (%)	Outstanding amounts (EUR million)	Annual percentage change (%)
2014	95 198	-3.3	1 520	-6.5
2015	89 141	-1.2	1 410	-4.4
2016	87 502	0	1 341	0.1
2017	82 114	0.4	1 233	-5
2018	76 379	0.3	1 218	4.1
2019	67 349	0.2	1 201	0.2

Source: Credit to domestic non-financial corporations by domestic MFIs excluding the Bank of Greece, breakdown by branch of activity, Central Bank of Greece, 2020.

According to the banks, **the supply of finance is more constrained by farmers' lack of available collateral, than by the limited resources of the banks.** Greek banks are therefore extremely reluctant to provide data, for example, on their loan-to-deposit ratio. Nevertheless, the interviews with banks support the idea that the banks' balance sheets are less of an issue than the farmers' capacity to provide valuable collateral and credible business plans.

Banks have specific challenges when financing young farmers and new entrants. This is because many of them do not have a credit history and are therefore unable to prove their repayment capacity. In addition, it is difficult to provide the required amount and quality of collateral requested by banks.⁵³ For younger farmers, the absence of own equity raises further challenges. In general, new entrants or young farmers who take over a large-sized farm with diversified agriculture activities are considered to be more bankable and to have better access to financing. Young farmers and new entrants often turn to private sources, as revealed in the *fi-compass* survey. Private financing in terms of 'friends, family and business partners' may account for anywhere between 19% and 40% of financing.⁵⁴

In general, most farmers representatives interviewed identified a lack of dissemination of information about available funding tools. Farmers are unaware of the loan products offered for the development of their businesses. In addition, some are reluctant to approach the banks due to their own lack of business mentality and the traditional way they run their business. They feel that the paperwork is overwhelming, and that the banking system, including its procedures and administrative requirements, are too cumbersome.

53 Interviews, 2019.

54 Bank Interviews, 2019.



2.4. Financing gap in the agriculture sector

This section presents an assessment of the financing gap in the Greek agriculture sector, broken down by farm-size and financial product.

Key elements of the financing gap in the Greek agriculture sector

- The financing gap is estimated to be between EUR 4.5 billion and EUR 14.3 billion.
- Small-sized farms (below 20 ha) make up the majority of the financing gap.
- The gap is the largest for long-term financing, but it is also substantial for medium-term financing.
- About 25% of the overall gap might be attributed to young farmers.
- The key constraints, apart from the limited liquidity of the banking sector which is still recovering from the financial crisis, are (i) a lack of collateral, (ii) a lack of credit history among young farmers, and (iii) the lack of finance knowledge among farmers.
- In addition, the strong concentration of the supply means that banks can be very selective in choosing their clients, which, in combination with banks being risk averse, leads to significant constraints on the supply side.

This section presents an estimate of the total value of unmet financing needs of financially viable agricultural enterprises, defined as the financing gap, for 2017. The estimate is calculated by multiplying the total number of farms in the financing market by the proportion of financially viable farms reporting unmet demand for finance multiplied, in turn, by the average obtained loan value to farms.

$$\text{Financing gap} = \text{Number of farms} \times \text{percentage of firms that are both financially viable and have unmet demand} \times \text{average loan volume}$$

All the calculations are based on the results of the *fi-compass* survey for Greek farms and statistics from Eurostat (see Annex A.4 for more information). The methodology used for calculating the gap is described in Annex A.3.

The financing gap arises from unmet financing demand from economically viable farms.⁵⁵ As explained in section, the unmet demand for finance includes

- (i) lending applied for but not obtained, or
- (ii) a lending offer refused by the potential borrower, as well as
- (iii) lending not applied for due to expected rejection.

For the purpose of this study, 'turnover growth' is used as a proxy of farm viability. Two different criteria for viability are used, which lead to the calculation of a range for the financing gap between an upper and a lower bound:

- The **lower bound** gap is calculated under the hypothesis that only enterprises which reported a stable (non-negative) turnover growth and no cost increase in the previous year can be considered as viable.
- The **upper bound** gap is calculated under the hypothesis that all enterprises which reported a stable (non-negative) turnover growth can be considered as viable.

The financing gap for the Greek agriculture sector is estimated to be between EUR 4.5 billion and EUR 14.3 billion (Table 8 and Figure 15). The unmet financing needs, however, are concentrated in specific segments of the sector, with the financing gap mainly affecting small-sized farms. The type of loans for which

⁵⁵ The financing gap presented in this section is different from the total unmet demand presented in Section 2.2.2. In the quantification of the total unmet demand, all the enterprises in the population applying for finance are considered independent from their economic viability.



the gap is the largest are long-term loans. Amongst other things, this is due to Greek farmers' having a lack of collateral that can be used to secure their loans and due to the major banks' being unwilling to finance long-term projects. Short-term financing is also inadequate to meet the needs of farmers, but using CAP direct payments as collateral (as required by the banks) has improved conditions.

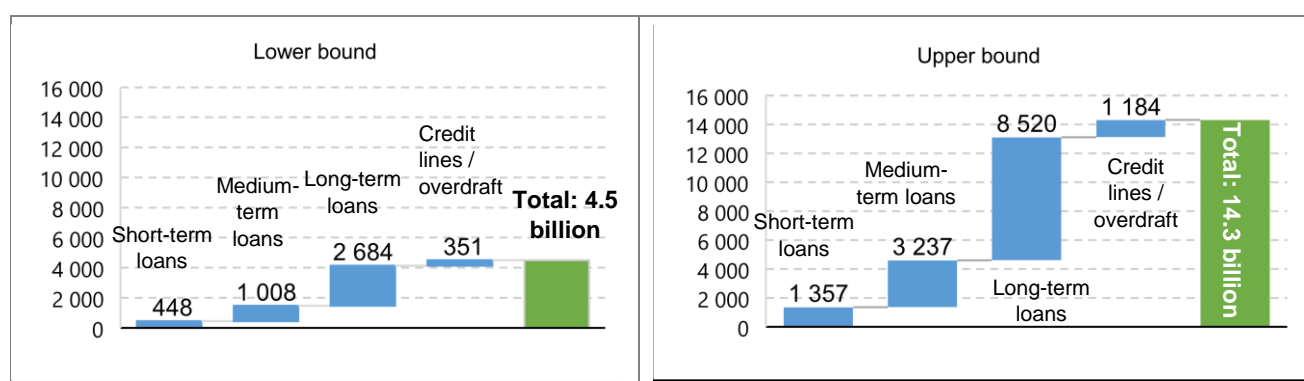
The needs for medium-term financing are also substantial. The unmet needs for viable farms range between EUR 1.0 and EUR 3.3 billion. Because the drivers of the gap for medium-term financing are similar to those for long-term financing, these can both be addressed by similar financial products. It should be noted that large-sized farms do not appear to have significant difficulties in accessing finance of any type.

Table 8: Financing gap by farm size in the agriculture sector, 2017, EUR million

		Total	Short-term Loan	Medium-term Loans	Long-term Loans	Credit lines/bank overdraft
Upper bound	Small-sized farms	12 924.3	1 202.8	2 957.1	7 708.7	1 055.7
	Medium-sized farms	1 255.3	137.9	254.3	757.2	105.9
	Large-sized farms	119.0	16.2	25.8	54.4	22.5
	Total	14 298.6	1 356.9	3 237.2	8 520.3	1 184.1
Lower bound	Small-sized farms	4 058.4	396.8	920.5	2 428.5	312.6
	Medium-sized farms	394.6	45.5	79.2	238.6	31.4
	Large-sized farms	37.2	5.4	8.0	17.1	6.7
	Total	4 490.2	447.6	1 007.7	2 684.2	350.6

Source: Calculations based on the results from the fi-compass survey.

Figure 15: Financing gap by product in the agriculture sector, 2017, EUR million



Source: Calculations based on the results from the fi-compass survey.

As discussed for section 0, **the share of Greek farmers who are discouraged from approaching banks for a loan is significant** (about 50%).⁵⁶ This inevitably affects the gap calculations. Thus, when the gap is estimated only for those that have been rejected on their loan applications, or refused the bank's loan offer,

⁵⁶ Because of the high number of Greek farms (684 000) and the assumption that approximately 50% have been discouraged, leads the total gap estimate to be very high. The high share of discouraged farmers is linked to the tumult on the financing market following the financial crisis.



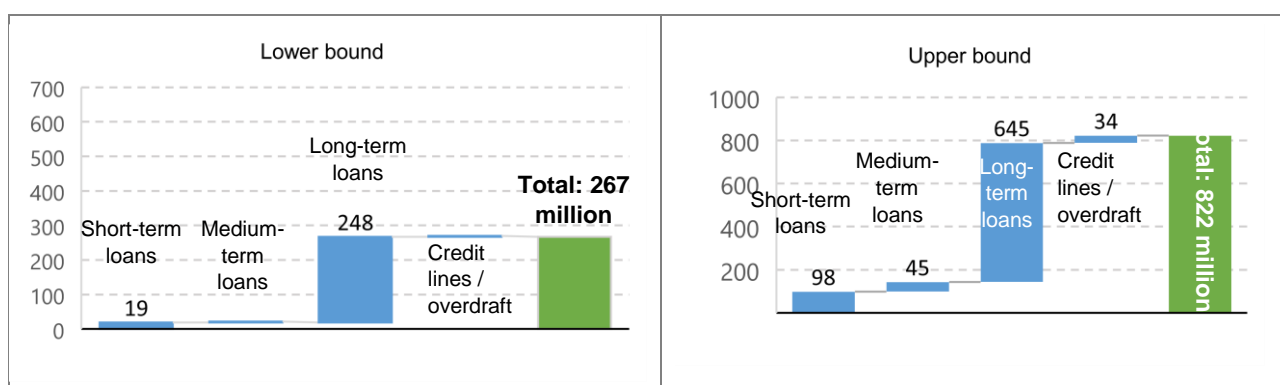
the total financing gap estimate comes to EUR 267 million to EUR 822 million. Still, the gap is the largest with regard to access to long-term financing for small-sized farms (Table 9 and Figure 16).

Table 9: Financing gap by farm size in the agriculture sector (excluding discouraged farmers), 2017, EUR million

		Total	Short-term Loan	Medium-term Loans	Long-term Loans	Credit lines/bank overdraft
Upper bound	Small-sized farms	742.1	87.28	40.67	583.91	30.27
	Medium-sized farms	73.9	10.00	3.50	57.36	3.04
	Large-sized farms	6.3	1.18	0.36	4.12	0.65
	Total	822.3	98.5	44.5	645.4	34.0
Lower bound	Small-sized farms	241.1	16.8	0	224.3	0
	Medium-sized farms	24.0	1.9	0	22.0	0
	Large-sized farms	1.8	0.2	0	1.6	0
	Total	266.8	18.9	0.0	247.9	0.0

Source: Calculations based on the results from the fi-compass survey.

Figure 16: Financing gap by product in the agriculture sector (excluding discouraged farmers), 2017, EUR million



Source: Calculations based on the results from the fi-compass survey.

In the ex-ante assessment for EAFRD financial instruments, commissioned by the Greek EAFRD managing authority (2018),⁵⁷ the market financing gap is calculated to be between EUR 2.1 and EUR 2.5 billion⁵⁸.

⁵⁷ EIB, 2018, Assessing the potential use of financial instruments in Greece in agriculture – A study in support of the ex-ante assessment for the deployment of EAFRD resources through financial instruments during the 2014-2020 programming period.

⁵⁸ The methodology used to calculate the gap was different that the one used in this report. To estimate the demand and supply of finance to farmers and agri-food enterprises, the ex-ante assessment made use of two-step methodological approach:

- Supply calculation based on an online survey of 500 Greek farmers and 200 Greek agri-food enterprises, of which those who confirmed having accessed financing over the last three years were considered and then multiplied by the estimated average amount of financing obtained. Next step included estimating the total supply of new loans based on the amount of outstanding loans. In order to combine the approaches, the lowest estimated result by product type was taken as the lower bound, while the highest estimated result was taken as higher bound.



Regardless of the actual size of the gap, which may vary depending on the methodologies applied and the data used, all stakeholders interviewed agreed that **a substantial financing gap exists in the Greek agriculture sector and that it affects small-sized farms in particular.**

There are several drivers of the gap:

- The limited liquidity of the banks over the last eight years, during the financial crisis, and the strict lending policies they are still applying.
- The lack of sufficient competition in the financial market and the dominance of one banks in the provision of finance to farmers.
- Farmer's lack of collateral due to the limited availability of liquid, high-value assets.
- Structural features of Greek agriculture that undermine access to finance, such as the limited size of agriculture holdings, the low profitability and added value of production, the ageing farmers and landowners.
- A lack of credit history, especially in the case of young farmers and new entrants.
- Deficiencies in the provision of specialised advice and support, combined with the generally low entrepreneurial culture of the sector, particularly in the small-size segment.

About 25% of the overall gap might be attributed to young farmers. Between 36% and 80% of rejected and viable loan applications came from applicants under 40 years old. Similarly, between 23% and 40% of discouraged applications came from young farmers. Using this information to provide a different breakdown of farms with constrained access to finance, a financing gap for young farmers of between EUR 1.9 billion and EUR 3.4 billion is obtained. The fact that young farmers represent a considerable part of the gap can be explained by their lack of credit history, lack of collateral, the banks' perception of young farmers as high-risk clients, and the banks' risk aversion, with them imposing a zero-risk policy when financing farmers. Young farmers who take over an established family business have a far better chance of accessing credit than any other new entrant.

The EAFRD financial instruments are expected to significantly enhance farmer's access to finance.

The interviewed stakeholders believe that the two financial instruments that are already planned will strongly facilitate farmers' access to finance: the first loss portfolio guarantee instrument (FLPG) for loans above EUR 25 000 will reduce collateral requirements and lower interest rates for farmers. It is expected that lending can be increased by 4 to 6 times, assuming a portfolio guarantee cap rate up to 35% and a guarantee rate of 80%. As mentioned in the previous sections of the report, the overall amount of financing for farmers is expected to reach EUR 400 million.⁵⁹

In addition, a risk-sharing micro-loan instrument (loans of up to EUR 25 000) is in the process of being set-up. Providing technical support to farmers to support the implementation of their investment project could also increase the bankability of the investment. The amount of financing to farmers is estimated to be between EUR 66 million and EUR 100 million.⁶⁰

Over the coming years, the financing gap is likely to reduce, unless the current COVID-19 health crisis reverses the ongoing positive process by disrupting market channels and the flow of resources into farms. This may be due to several reasons:

- ii) The demand for finance of farmers and agri-food enterprises was estimated based mainly on the online survey. The total amounts that respondents (by size class and type of financial product) intended to ask for in the future was taken as a basis for the estimation of the total demand.

Thus to establish the gap, this two-step approach was followed for each financial product considered: first, the maximum estimated supply was subtracted from the lowest demand estimate presented in the previous chapters. Secondly, the minimum estimated supply was subtracted from the highest amount of the estimated demand.

⁵⁹ EIB, 2018, Assessing the potential use of financial instruments in Greece in agriculture - A study in support of the ex-ante assessment for the deployment of EAFRD resources through financial instruments during the 2014-2020 programming period, Final report.

⁶⁰ Ibid.



- Outstanding debts are shrinking, which in turn will create the opportunity for improved financial management and refinancing.
- With the financial crisis fading away with time, banks seem more willing to step up funding, provided that their requirements are met. The requirements, however, are currently not flexible.
- The implementation of the EAFRD financial instruments may potentially play a major role in driving down the financing gap, particularly because guarantees are short in supply. It may also change banks' perception about the sector, the risks associated with it, and the potential for the sector to repay its new financing and to create growth.
- A crucial factor for improvement is also the rationalisation of the tax and insurance burdens.
- Any future potential land/farm consolidation in the sector will reduce the number of holdings, leading to more sustainable and viable farms. However, as land sales are very limited and as small-sized farming has traditionally dominated, such impacts may not be expected in the short to medium-term.



2.5. Conclusions

Investments in fixed assets in the Greek agriculture sector have started to increase again (after contracting throughout the financial crisis). In 2018, they represented 18% of the GVA for agriculture, forestry and fisheries. However, the level of investment as a share of GVA is still much lower than the EU 28 average share of 30.7%.

Investments by farmers have been supported by bank funding, despite a decrease in the outstanding agriculture loan portfolio. Besides liquidity constraints on the side of banks during and in the aftermath of the financial crisis, the decreasing outstanding portfolio is due to many farmers repaying their debt. The fact that many farmers are able to repay their debts indicates that the agriculture sector has recovered. The financial sector expects the outstanding loan portfolio to grow in the next few years.

Farmers mostly require loans to cover their working capital needs (e.g. feeding stuff and energy) and **investment needs** (e.g. modernisation, animal welfare compliance, and new machinery and equipment).

CAP stimulates demand for finance and supports farmers' incomes and investments. The CAP subsidies strengthen farmers' incomes and some give liquidity, which can also be used for repayments of loans. Many Greek farmers only invest in their business in conjunction with CAP support, something also tolerated by banks when assessing farmers' loan applications. Similarly to many other EU countries, Greek banks try to use as a guarantee any future CAP payments that a farmer will receive before approving his/her loan application.

Almost half of the loan applications of farmers are rejected and many farmers are discouraged from applying. This is mainly caused by the lack, or low value, of collateral of all farmers, but particularly for the younger ones. These young farmers also tend to lack a sufficient credit history. In addition, farmers still have outstanding debt to repay, which limits their borrowing capacity. Farming in Greece is still dominated by the older generation that is often lacking a general business-oriented attitude, as well as the necessary business and agronomic skills.

The general situation of the banking system in the aftermath of the financial crisis and the high levels of NPLs (generally, and in agriculture) limits not only the overall willingness to lend, but also the risk appetite of Greek banks. Banking policies thus remain relatively restrictive in the aftermath of the financial crisis, with banks being less open to negotiate the terms and conditions of credit. Given the limited competition of agriculture finance suppliers, banks can be very selective in choosing their clients.

The financing gap has been estimated to be between EUR 4.5 billion and EUR 14.3 billion. The financing gap is concentrated on small-sized farms. Access to long-term loans remains the key driver of the gap.

Based on the results of the analysis, several recommendations for public intervention could be considered:

- The EAFRD guarantee instrument that is about to be launched, is expected to improve farmers' access to finance. However, given the magnitude of the gap and the overall situation of the Greek financial market for agriculture, it is unlikely that the instrument will be able to bring the market to normal functionality by the end of the current programming period. Thus, as an assessment should be made at a later stage, also in the light of using financial instruments in the next programming period 2021-2027, aiming to verify:
 - The adequacy of the guarantee capital and the expected leverage.
 - The concrete ability to address the constraints of young farmers and small-sized enterprises, which according to this analysis, are the more constrained segments.
 - The overall performance of the instrument and achievement of targets.
- The EAFRD micro-loans financial instrument, which is under implementation, seems also to be an adequate instrument to support the financial inclusion of micro and small-sized farms as well as young farmers, who currently have to rely on informal financial sources (e.g. from family or friends) to a great extent. Also for this instrument, an assessment of its performance at a later stage should be undertaken, also in the light of using financial instruments in the next programming period 2021-2027.



- To stimulate banks' lending for higher loan amounts above micro-finance, and targeting more market-oriented enterprises (from small to medium scale as well as young farmers and new entrants), a risk-sharing loan instrument might also be considered. It could combine the necessary risk coverage for banks with a higher reduction of the interest rates, something highly desired by Greek farmers, as interest rates are far higher than the Euro area's average.
- Independent from the type of financial instrument implemented, the opportunities offered by the new CAP legal framework, such as (i) the easier combination of financial instruments and grant support, alongside interest rate subsidies, (ii) stand-alone working capital provision, or (iii) the possibility to finance the purchase of land for young farmers, might offer interesting opportunities to increase the effectiveness of the instruments directed towards the agriculture sector or towards specific target groups.
- Finally, additional technical support, in the form of training and/or advisory services, could be provided to farmers, also in combination with the financial instruments. This would help improve farmers' relationships with banks, and improve the quality of potential future loan applications. Training in financial management and accounting topics should be a fundamental component of this support.



3. PART II: AGRI-FOOD SECTOR

3.1. Market analysis

Key elements of the Greek agri-food sector

- The Greek agri-food sector plays a significant role in the domestic economy. With an output value of EUR 13 billion, it accounts for around 6% of total GVA and one-third of the industry's GVA.
- The sector comprises 16 933 enterprises, producing more than EUR 15 billion in revenue.
- The average annual growth rate of revenue in the sector was 1.86% over the 2009 to 2016 period.
- Most enterprises manufacture food products (90%), with the milk and dairy, bakery, and oil sub-sectors alone accounting for around 50% of total agri-food production.
- Firms employing over 50 people, while representing only 2% of all firms, account for 63% of total industry turnover.
- While most Greek agri-food enterprises (90%) are small family-run businesses employing fewer than 10 people, they account for only 18% of the industry's turnover. The small size of these enterprises makes it difficult to generate economies of scale and to comply with the demands of international markets in terms of volume and variety of assortment.
- The Greek agri-food sector has been negatively affected by increasing concentration of the domestic grocery retail sector, leading to price pressures, sagging margins and rising working capital needs. Consolidation and restructuring in the sector are a distinct possibility in the near future.

The Greek agri-food sector plays a significant role in the domestic economy. With an output value of EUR 13 billion in 2018⁶¹, it accounts for around 6% of total GVA. The GVA of the agri-food sector accounts for around one-third of the industry's GVA⁶². In size, the sector is equivalent to 7% of Greece's Gross Domestic Product (GDP). It is one of the most competitive, outward looking sectors in the country. During the economic crisis, the sector retained its dynamics, especially due to the need to replace more expensive imported goods with domestic food production. The resulting increase in food production translated partially into a higher export activity. The average annual growth rate of revenue in the sector was 1.86% over the 2009 to 2016 period. In 2018, nearly half of all enterprises (48%) had an increase in their turnover. However, the selling price of their output increased by only 22% in 2018, compared to 35% for the EU 24. At the same time, production costs increased by 46%. Exports of food and beverage manufacturers reached EUR 2.4 billion in 2017, while imports totalled EUR 2.1 billion, resulting in a trade surplus of EUR 279 million.⁶³

The Greek agri-food sector comprises 16 933 firms, of which 90% are small, mostly family-run businesses employing fewer than 10 people. While the sector produces more than EUR 15 billion in revenue, these small family-run enterprises account for only 18% of the industry's total revenues, at around EUR 2.6 billion. Firms employing between 10 and 49 people, account for 8% of all firms, while large-scale companies (firms with more than 50 employees), account for only 2% of all firms in the sector. However, large businesses have seen their revenues increase in recent years and now account for around 63% of the industry's total turnover. While the sector employed 111 000 people in 2018, 19% of enterprises decreased their number of permanent employees.⁶⁴

61 Eurostat, 2019.

62 Focus Group, 2019 and Hellenic statistics.

63 Eurostat, 2019.

64 PwC, 2018, Food & Beverage Industry On the verge of change.



Nearly all agri-food enterprises (90%) manufacture food products, with only 10% manufacturing beverages. Three sub-sectors alone, milk and dairy, bakery and oils, account for around 50% of all agri-food production. In 2018, 73% of the enterprises had revenues under EUR 2 million, 14% had revenues between EUR 2 and 10 million, and only 7% had revenues greater than EUR 10 million.⁶⁵

The Greek agri-food sector has been negatively affected by the increased concentration of the domestic grocery retail sector over the last few years. The increase in market concentration has augmented the bargaining power of the large, domestic supermarket chains, leading to downward pressure on pricing and increasing the working capital needs of agri-food firms. While there are a substantial number of agriculture cooperatives active in the agri-food sector, their impact on the local rural economy varies.

Despite its resilience during the crisis, the food and beverages industry lags behind in innovation due to structural weaknesses that limit dynamic growth. The constraints of the sector on domestic and export growth boil down to the relatively small size of the entities and market failures (e.g. the small scale of companies is incompatible with the requirements of the international markets in terms of volume and variety of assortment). Under the pressure of extremely low concentration and weak market diversification potential, the sector is likely to experience consolidation and restructuring in the future.

⁶⁵ PwC, 2018, Food & Beverage Industry On the verge of change.



3.2. Analysis on the demand side of finance to the agri-food sector

This section describes the drivers of demand for finance in the agri-food sector and analyses the met and unmet demand. It seeks to identify the main reasons for agri-food enterprises to request financing and the agri-food sub-sectors showing the largest need for finance. The section also provides an analysis of the type of enterprises that face the biggest hurdle in accessing credit. The examination of the demand for agri-food finance is based on the findings from the Agri-food survey results of 70 firms, as well as interviews with key stakeholders in the agri-food sector, combined with national statistics.

Key elements on finance demand from the Greek agri-food sector

- Compared to other EU countries, the Greek agri-food sector is one of the least capital-intensive. However, Greek agri-food producers with overseas markets did manage to maintain or increase their investment levels in recent years, even at the peak of the financial crisis.
- Investments in capacity expansion is the main driver of finance demand for Greek agri-food firms, followed by the need for inventory⁶⁶ and working capital.
- The canning and pork sub-sectors have the highest investment capital needs, followed by the fruit and vegetables, bakery and oil sub-sectors.
- Access to finance for working capital and investment loans is a difficulty for one-third of the agri-food firms.
- The unmet demand for credit for the Greek agri-food sector is estimated at EUR 1.9 billion.
- The existence of previous outstanding loans, insufficient collateral and a lack of credit history are the main reasons why firms' have their applications for finance rejected.
- Start-ups are particularly constrained in their access to finance.
- The key factors that discourage agri-food companies from applying for bank loans are the unfavourable loan terms and conditions offered by the banks alongside the fear of possible rejection.
- The fear of rejection is largely caused by the fact that many agri-food enterprises have an outstanding debt.

3.2.1. Drivers of total demand for finance

The demand for finance by the agri-food sector was negatively affected by the financial crisis. Throughout the crisis, gross investment in the whole manufacturing sector declined by 41.8%, and investment in food manufacturing followed a similar trend.⁶⁷

The Greek agri-food sector is not particularly capital intensive. Gross investment in the agri-food sector amounted to EUR 528.2 million in 2018 and gross added value to EUR 3 458 million in 2016.⁶⁸ Figure 17, provisionally compiled by Eurostat for the years after 2016, shows the evolution of gross investment in food and beverage production over the last ten years. The limited capital base of enterprises in the food and beverages sectors suggests the possible existence of technological deficiencies.

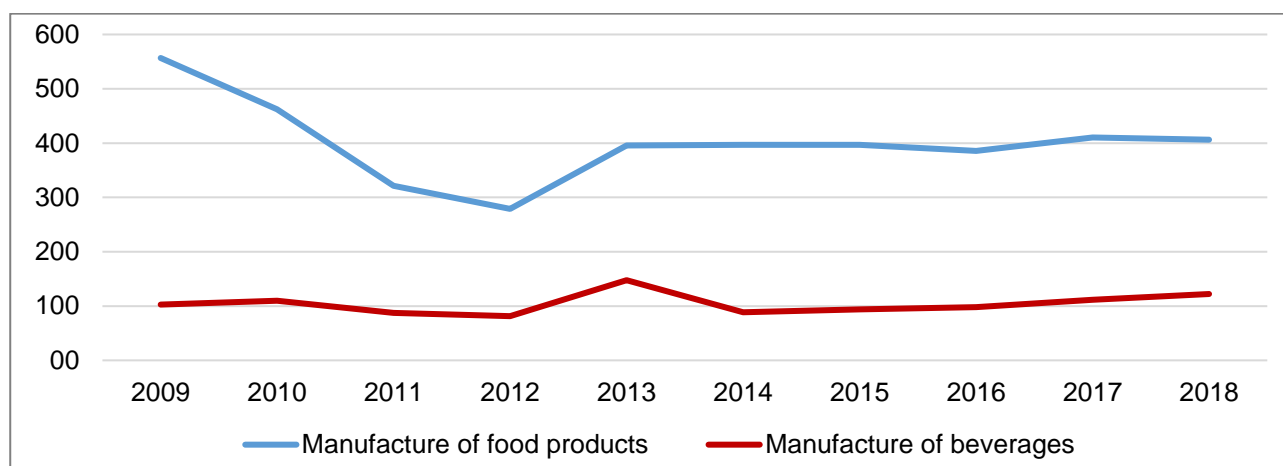
⁶⁶ Inventory in this regard means the purchase of stock, agriculture raw materials for example.

⁶⁷ Foundation for Economic Research & Industrial Research, May 2017, 'The Manufacturing Sector in Greece', Study. Gross investment for the whole manufacturing sector amounted to EUR 2.1 billion in 2015.

⁶⁸ Eurostat and Hellenic Statistic Institute's websites.



Figure 17: Manufacture of food product and beverages in Greece: gross investment in tangible goods in 2009-2018, EUR million



Source: Eurostat, 2019.

However, the ratio of fixed assets to liabilities has been higher for the agri-food sector than for the rest of the Greek industries. The relatively high proportion of assets of agri-food enterprises provides them with the possibility of accessing investment finance, at least for some sub-sectors. The total debt in the agri-food sector amounted to EUR 3.6 billion in 2016, with the most indebted sub-sectors being bakery (EUR 887 million of debt) and dairy and ice cream (531 EUR million) (Table 10). Fixed assets in the agri-food sector increased significantly between 2008 and 2015⁶⁹, from EUR 4.2 billion to EUR 5.5 billion. In the period 2012 - 2015, fixed assets saw an average annual growth rate of 2.6%.⁷⁰ These high rates of investment growth were mostly possible due to larger-size agri-food enterprises being able to take advantage of large export markets in other countries.⁷¹

Table 10: Total Debt and Fixed Assets of the agri-food sector, 2018, EUR million

Sub-sectors	Total Debt (EUR million)	Fixed Assets (EUR million)
Red Meat	39	223
Water and Soft Drinks	56	41
Nuts and Currants	68	192
Alcoholic Beverages	127	194
Fruits and Vegetables	146	432
Oil	225	332
Frozen Food	239	64
Poultry	243	272
Pork	267	974
Canning	304	1 817
Fisheries	528	338
Dairy and Ice cream	531	254
Bakery	887	344
Total	3 659	5 476

Source: PwC, Food & Beverage Industry On the verge of change, 2018.

69 No recent data available.

70 PwC, 2018, Food & Beverage Industry On the verge of change.

71 PwC, 2018, Food & Beverage Industry On the verge of change.



Investment needs seem to be higher in certain agri-food sub-sectors, based on fixed assets value.⁷²

The canning and pork sub-sectors have the highest investment capital needs, followed by the fruit and vegetables, bakery and oil sub-sectors. The poultry, dairy and ice cream, red meat, alcoholic beverages, and nuts and currants sub-sectors seem to have lower investment capital needs.

Agri-food enterprises in the pork and red meat sub-sector, which offer more off-the-shelf products through the big supermarkets to satisfy customer demand, invest in processing equipment. Smaller processors, in particular, need to invest to comply with increased food safety standards.

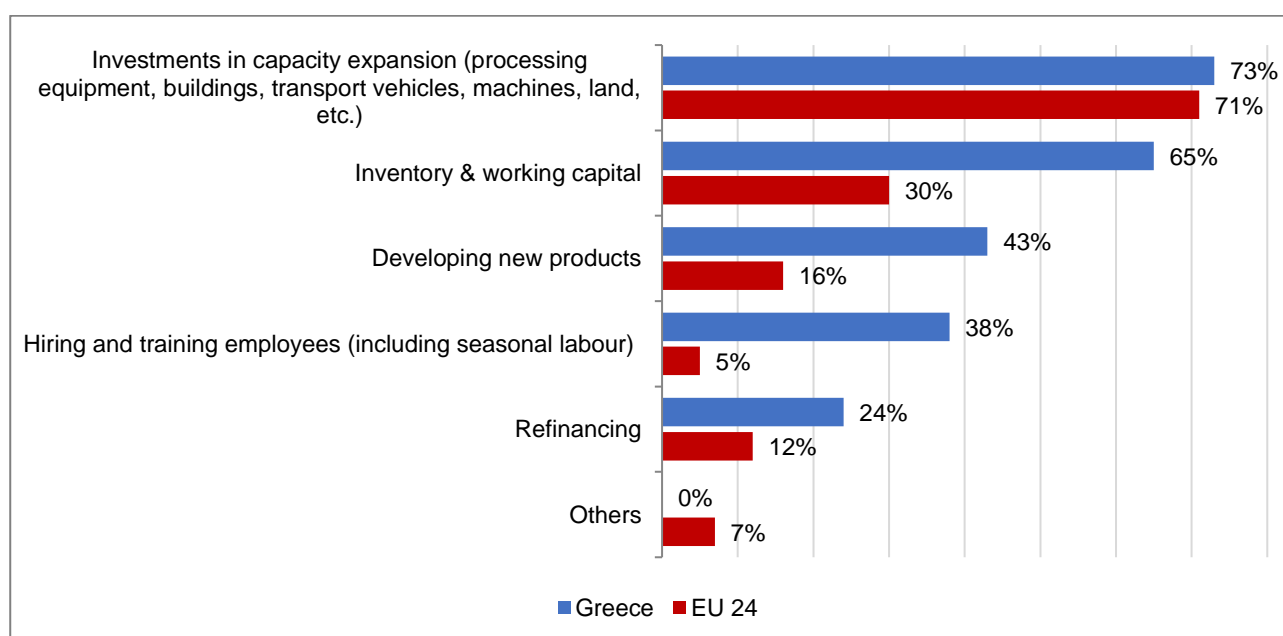
Interviews, particularly with wine makers, outlined that investment needs are also high in this sub-sector. Greece is the 8th largest EU producer of wine (and 18th in the world) with 2.2 million hectolitres⁷³ produced in 2018.⁷⁴ In recent years, however, production and exports have both declined. To reverse this trend, enterprises need to invest in new wine grape varieties, replace old vineyards and improve their production practices. Consistency in the quality of exported wine is also an important factor, which is likely to define the success or failure of the industry.

In general, the **demand for finance by the Greek agri-food sector is mainly driven by:**

- the need to expand capacity;
- inventory and working capital needs; and
- the need to develop new products.

Based on the Agri-food survey, and confirmed by interviews and focus group discussions, investments in capacity expansion, inventory and working capital needs are the main reasons why Greek agri-food enterprises seek finance. While investments in capacity expansion have roughly the same importance for Greek and EU 24 processors, their working capital needs are a more significant concern (Table 18). Indeed, all reasons for demanding finance, such as for developing new products, hiring and training employees, as well as re-financing, are significantly more important for Greek agri-food enterprises than for the EU 24 average.

Figure 18: Purpose of bank loans in the agri-food sector in 2018



Source: Agri-food survey.

⁷² PwC, 2018.

⁷³ A hectolitre is equal to 100 litres.

⁷⁴ Source: Statistical book, Volume of wine produced in European wine producing countries in 2018, 2020. In Greece there are about 1 295 wineries, 300 indigenous grape varieties, 33 regions with PDO and about 100 PGIs.



Investments in capacity expansion include the purchase of processing equipment, buildings, transport vehicles and machinery. These investments are considered long-term in nature. Interviews suggested that demand is mostly driven by medium and larger-size enterprises. Vegetables and fruit processors (as well as the canning industry) often need to invest into cooling facilities to ensure that raw materials can be stored for 2-5 days before being processed. In addition, most sub-sectors require modern and efficient equipment for the packaging and the presentation of their products in a way that is appealing to customers on both the domestic and foreign markets.

Interviews carried out for the purpose of this study showed that, in general, enterprises with substantial export activity seek larger bank loans for their investments. Hardly any differences exist among regions, but according to the Greek Managing Authority, Macedonia and Crete are slightly ahead of the other areas. Demand for investment was, however, negatively affected by the Russian embargo, which shut down a key market for the Greek products and stalled many expansion plans that were underway.⁷⁵

Investments in working capital cover operational costs and are considered short-term in nature, usually being repaid in less than a year. **Working capital needs play a significant role in overall demand for finance across all sub-sectors,** but particularly for the dairy and milk, fruit and vegetables processing sub-sectors as they also require the purchase of raw materials on a continuous basis. For small-sized agri-food enterprises, this is of key importance in keeping their business running.

It is worth noting that **small-sized agri-food enterprises with large export activity have more substantial financing needs for working capital than enterprises serving only the domestic market.** This is because exporting enterprises have to keep up with the demand and quality requirements of the EU and overseas customers, and because they usually have to finance the production and promotion of their products on credit until they receive payment from international buyers, which results in an increase in working capital needs. The existence of strict capital controls on Greek banks since 2015 has further aggravated their situation. Any future expansion of their production capacity would inevitably create further financing needs.⁷⁶

Developing new products contributes to the increasing demand for finance. The Bank of Greece estimates that, for example, products that are Protected Designation of Origin (PDO) branded can be 1.5 times more expensive than other products not PDO protected. This is mainly applicable to dairy products (cheese and yogurt), olives, natural sweets and honey.⁷⁷ Additional investments could be made in the creation and promotion of more attractive packaging.

Low selling prices and high production costs were the main difficulties reported by the Greek agri-food enterprises in 2018. The problems faced by them were also more significant compared to the EU 24 (Figure 19). More than half (59%) of all Greek agri-food companies faced low selling prices, compared to only 22% for the EU 24. Significant were also the problems with the high production costs, as noticed by 45% of all businesses. This clearly shows that profits for agri-food processors were squeezed and rather low in 2018.

Heavy taxation is a complicating factor, not only because it reduces profitability and own equity for reinvestment, but also because it leads to tax evasion, which obscures the financial picture of the enterprises for the banking system and ends up making them appear non-bankable.⁷⁸

With regards to access to finance, Greek agri-food enterprises are at a significant disadvantage compared to the rest of the EU 24. For each type of loan product (finance for investments and for working capital) nearly a third (30%) of Greek enterprises reported facing difficulties. This compares to only 10% and 11%, respectively, in the EU 24. Regulatory bottlenecks and access to labour are the only areas, where Greek processors perceive fewer obstacles than their EU 24 counterparts.

75 Information provided from interviews with the EAFRD Managing Authority and Ministry of Rural Development & Food.

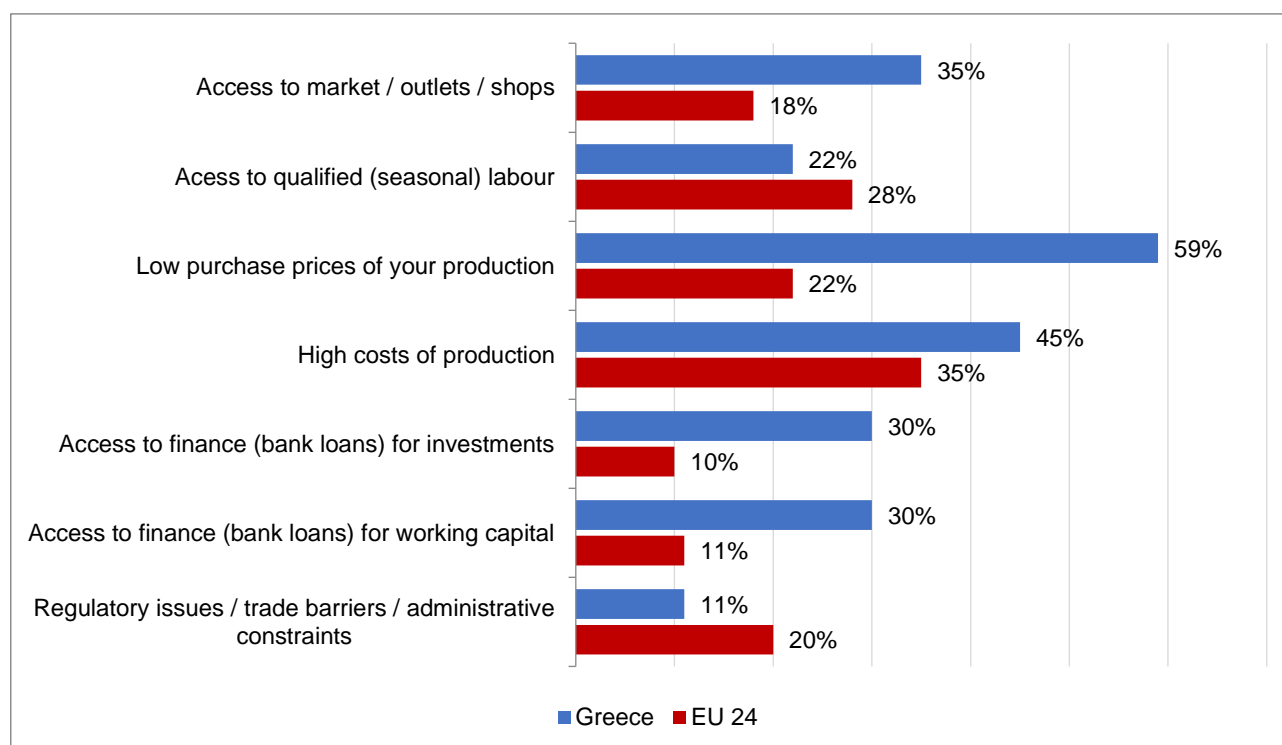
76 Interview with independent agribusiness consultant, 2019.

77 National Bank of Greece, 2015, Sectoral Report: Unlocking the potential of the Greek agri-food industry.

78 To avoid taxes, agri-food enterprises claim lower levels of turnover and profitability compared to their real (higher) income. Banks do not finance enterprises with low levels of turnover and profit recorded in tax statements (Focus Group meeting, 2019).



Figure 19: Difficulties experienced by agri-food enterprises in 2018



Source: Agri-food survey.

Currently, there are certain policy measures that contribute to improving the access to finance.

EAFRD support is facilitating investments by agri-food enterprises,⁷⁹ sometimes in conjunction with domestic resources from the National Aid Scheme. The main relevant RDP sub-measures are 4.2 Support for Investments in processing/marketing and/or development of agriculture products and, to a much lesser extent, 19.2 LEADER. The RDP shapes investment trends, because many agri-food enterprises invest only in conjunction with RDP measures and the National Aid Scheme.

At the end of 2019, all available funds under sub-measure 4.2 had been committed. The demand for grants is very high, going beyond what was made available under the grant calls. Taking into account all submitted applications (before any administrative checks, i.e. including any potentially non-eligible or non-admissible applications), in total 295 applicants asking for EUR 412 million in public financing (apart from their own contribution, which is of the same size) could not be satisfied, indicating a potentially large unmet demand for finance from the agri-food sector (Table 11).

79 On this analysis, all interviews and the focus group were in large agreement.

**Table 11:** Greece: RDP 2014 – 2020 implementation of sub-measure 4.2, total public finance, by the end of 2019

Sub-measure	Number of all submitted applications under the grant calls	Total support requested by all submitted applications (EUR million)	Number of approved and supported applications under the grant calls	Budget made available under the grant calls (EUR million)	Amount requested not being supported (EUR million)
4.2 Support for investments in processing, marketing and/or development of agriculture products	578	584	283	172	412

Source: EAFRD managing authority. Preliminary data.

Note: The 'Total support requested' and the 'Amount requested not being supported' are calculated based on all received applications before any administrative check regarding eligibility or selection criteria have taken place. Applications that have not been approved could have been non-eligible, and/or with insufficient or missing information not allowing for their evaluation, and/or with insufficient value-added, and/or ranked at a place for which the budget under the call is no longer available.

Considering the investment projects submitted under sub-measure 4.2, the sub-sectors with the highest demand for finance are the fruit and vegetables, and dairy sub-sectors.⁸⁰ Almost half of the applicants having obtained support from the RDP (sub-measure 4.2) also applied for bank loans in order to ensure their private co-financing part required for the implementation of the grant project. Although processors have easier access to the banking system compared to farmers, grants are still a factor allowing them to gain access to commercial funding, at least with a view to smoothing their current and future cash flows.⁸¹

In October 2018, the average loan amount necessary to complement grants from RDP sub-measure 4.2 was between EUR 150 000 and EUR 450 000 per small-sized enterprises for long-term financing.⁸² The average repayment period of such loans is currently 4 to 5 years, and may expand to up to 8 years for new loans (for projects below EUR 3 million). A significant number of bank loans, amounting to around EUR 1.25 - 1.3 million per loan are sought by investors in order to implement investment projects between EUR 4.5 - 5 million in size.

As mentioned already in section 2.3.1.2, following the recommendations of the ex-ante assessment for the use of EAFRD financial instruments, the Greek RDP Managing Authority is about to launch a First loss portfolio guarantee financial instrument co-financed by the EAFRD. The instrument managed by the EIF aims to improve access to finance to Greek farmers and agri-food companies through provision of guarantees to a portfolio of new loans to be originated by the participating banks covering 80% of potential losses on loan by loan basis until reaching the portfolio cap rate of up to 35%. The financial instrument is expected to be available at the second half of 2020 and, alongside the RDP grant support, to help addressing demand of finance for investments and working capital of the sector creating an agriculture loan portfolio of EUR 400 million.

80 Interviews and Focus Group, 2019.

81 Interviews and Focus Group, 2019.

82 Information based on interviews with the Greek Managing Authority.



3.2.2. Analysis of the demand for finance

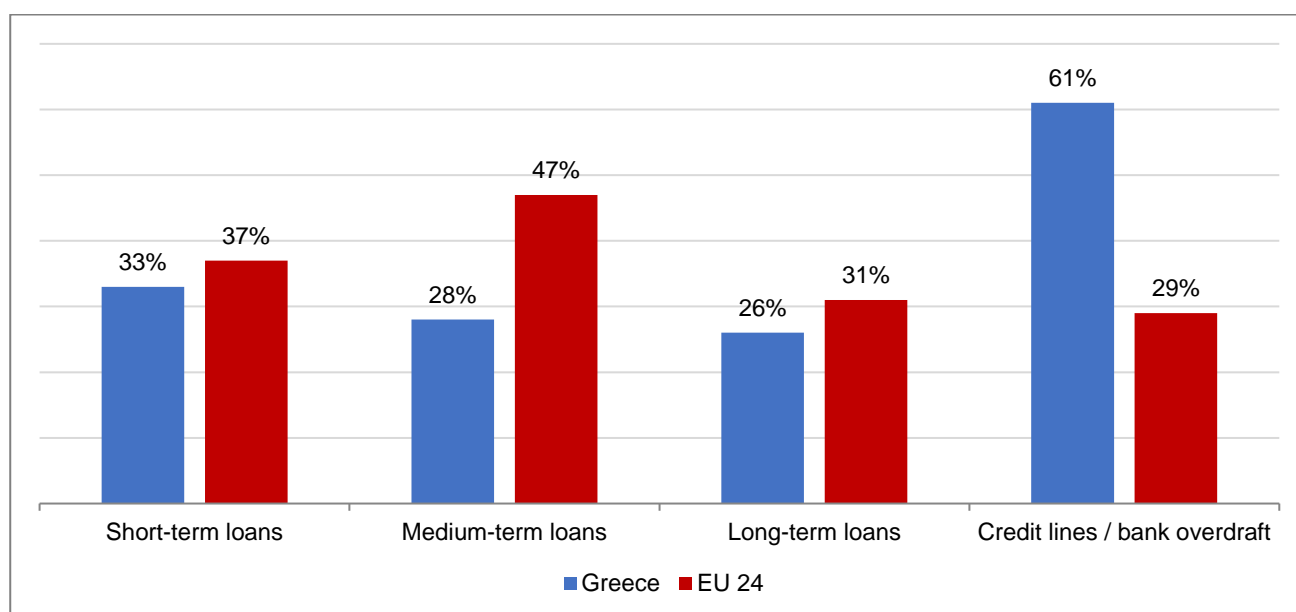
The potential total demand for finance combines both met and unmet demand. The met demand consists of the value of all applications for finance, which were accepted by the financial institutions in the relevant year. The unmet demand consists of the assumed value of applications rejected by a financial institution, offers of credit refused by agri-food enterprises, alongside cases where agri-food companies are discouraged from applying for credit due to an expectation of rejection or refusal.

The unmet demand for the Greek agri-food sector is estimated at EUR 1.9 billion, based on the results from the Agri-food survey.

Over the last three years, the most important sources of finance for Greek agri-food enterprises has been their own funds (93% of survey respondents), followed distantly by credit lines (20%). Long-term loans, medium-term loans and short-term loans were reported as an important source of finance by only 1%, 7% and 13%, respectively, of the respondents.⁸³

Based on the Agri-food survey, when applying for bank financing, **most agri-food enterprises applied for credit lines or bank overdrafts in 2018** (61% of those applying for finance, compared to 29% for the EU 24 average). Short-term loans were a distant follower (33%, compared to 37% for the EU 24 average), trailing medium-term and long-term loans (Figure 20).

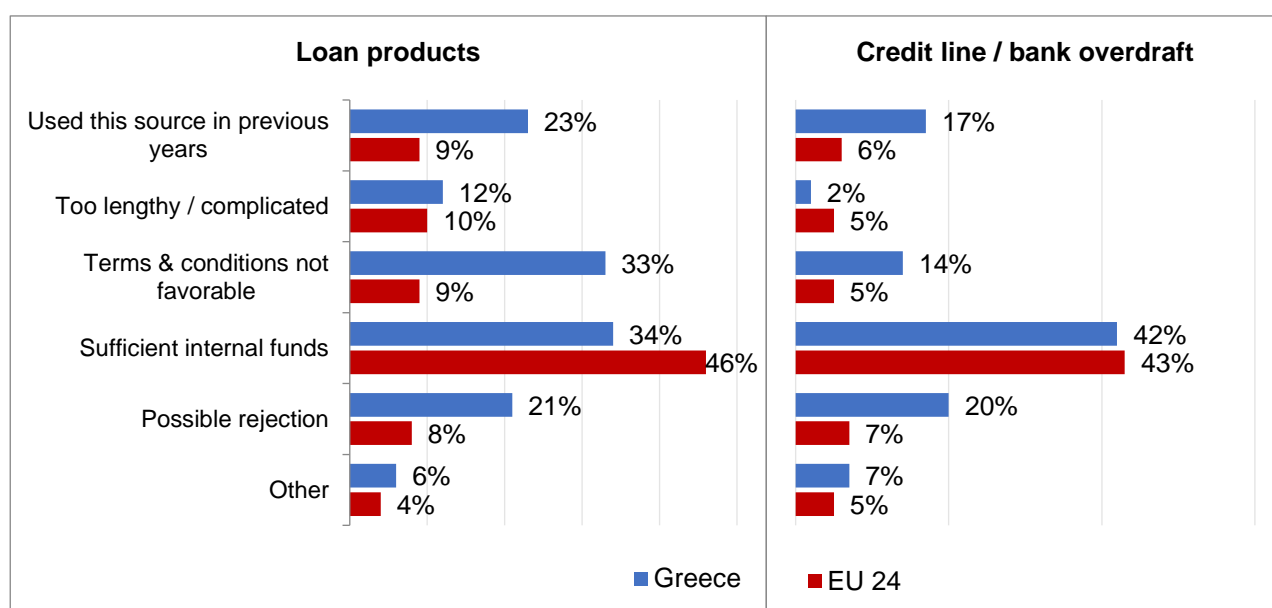
Figure 20: Agri-food enterprises applying for finance in 2018, by financing product



Source: Agri-food survey.

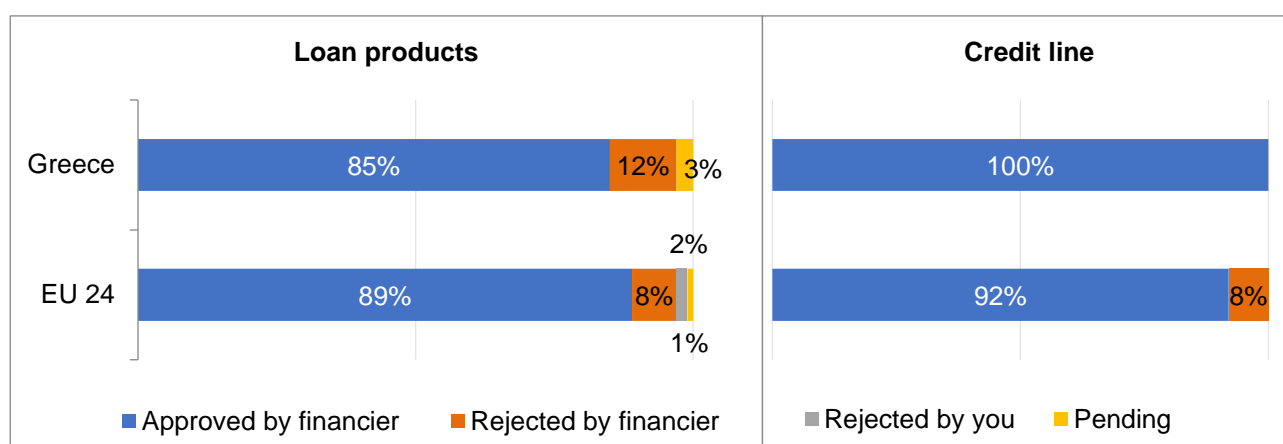
In Greece, the share of enterprises discouraged from applying for finance reached 20% in 2018. This is significantly higher than the EU 24 average. The surveyed agri-food enterprises mentioned the availability of their own funds and the unfavourable credit conditions offered by banks as the main reasons for not applying for finance (Figure 21). Interviewees and the focus group participants confirmed that the fear of possible rejection is largely caused by the fact that many agri-food enterprises have outstanding debt and because of the perception of unfavourable loan terms, related to high collateral requirements and the banks' inflexibility in providing tailored finance solutions (loan amount, maturity, interest rates, grace periods, etc.). The banks' restrictive lending policies over the last decade have not been helpful either.

⁸³ Agri-food survey, 2019.

**Figure 21:** Reasons for not applying for loans in the agri-food sector in 2018

Source: Agri-food survey.

While the rejection rates for loans to the agri-food sector are lower than for agriculture, they are still relatively high. According to the Agri-food survey, 12% of all applications for loans were rejected, which is nearly 50% higher than what is observed in the EU 24. No Greek agri-food processor refused a loan offer, compared to 2% for the EU 24. The survey also reported no rejections for credit lines and bank overdraft applications in Greece. According to the SAFE survey, the rejection rate for Greek SMEs from the whole economy is about 15%.⁸⁴

Figure 22: Results from loan applications in the agri-food sector in 2018

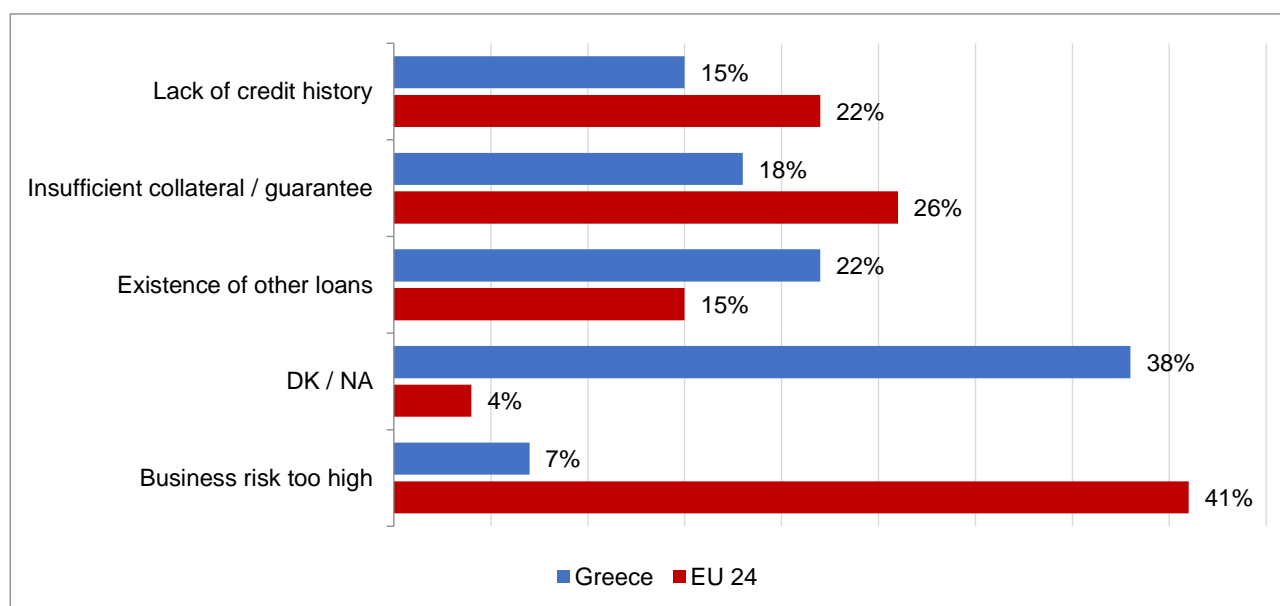
Source: Agri-food survey.

The most common reasons agri-food enterprises are rejected on their loan applications are insufficient levels of collateral, the existence of outstanding loans, and a lack of credit history (Figure 23).

⁸⁴ European Central Bank, 2018, Survey on the Access to Finance of Enterprises (SAFE).



Figure 23: Reasons for loans rejection in the agri-food sector in 2018



Source: Agri-food survey.

As discussed above, **rejections are driven by the absence of sufficient levels of valuable assets that can be used as collateral.** Banks often consider the value of existing fixed assets to be low and they fear that the selling price of the equipment or machinery, which is sometimes out-dated (especially for micro and small-sized businesses), will not be sufficient to cover the outstanding debt in case of default or that finding a buyer for the pledged assets may be difficult. This aspect particularly affects medium and long-term loan applicants, where banks request higher levels of collateral. A general lack of sufficient assets is a particular challenge for start-ups and new entrants.⁸⁵

Some agri-food enterprises are still paying off their old debt and thus have limited capacity to take on additional debt, even if they have investment needs. It has been mentioned during interviews, that particularly in situations where banks apply financial ratio indicators (in terms of assets to liabilities or debt to equity ratio, for example) to set their lending policies, lending to agri-food enterprises with existing debt can be very difficult for the banks. Compared to the EU 24, and after coming out from a lengthy financial crisis, outstanding debt remains on a high level, although companies have managed to reduce it.

In addition, during the financial crisis, many agri-food enterprises were faced with severe repayment problems and were unable to pay one or more loan instalments on time, which negatively impacted their credit history.

There are also agri-food enterprises that lack a track-record with any financial institution. The enterprises that have never borrowed before and that are unable to demonstrate their repayment capacity are also frequently rejected by banks. This is also relevant for new entrants and start-ups that are unable to even demonstrate that their business has been operating successfully for two or three consecutive years⁸⁶.

Lack of an appropriate business plan is another frequent reason for rejection. According to considerations shared by the participants in the focus group, banks also base their loan decision on the feasibility of the investment presented. Many small-sized Greek agri-food enterprises find it challenging to present their plans and financial situation convincingly as they do not fully understand what figures and indicators the banks use in their analysis.

Start-ups are particularly affected by an absence of sufficient collateral or a lack of credit history, which results in the rejection of their loan applications. In addition, new agri-food enterprises often face challenges

⁸⁵ Interviews, 2019.

⁸⁶ Ibid.

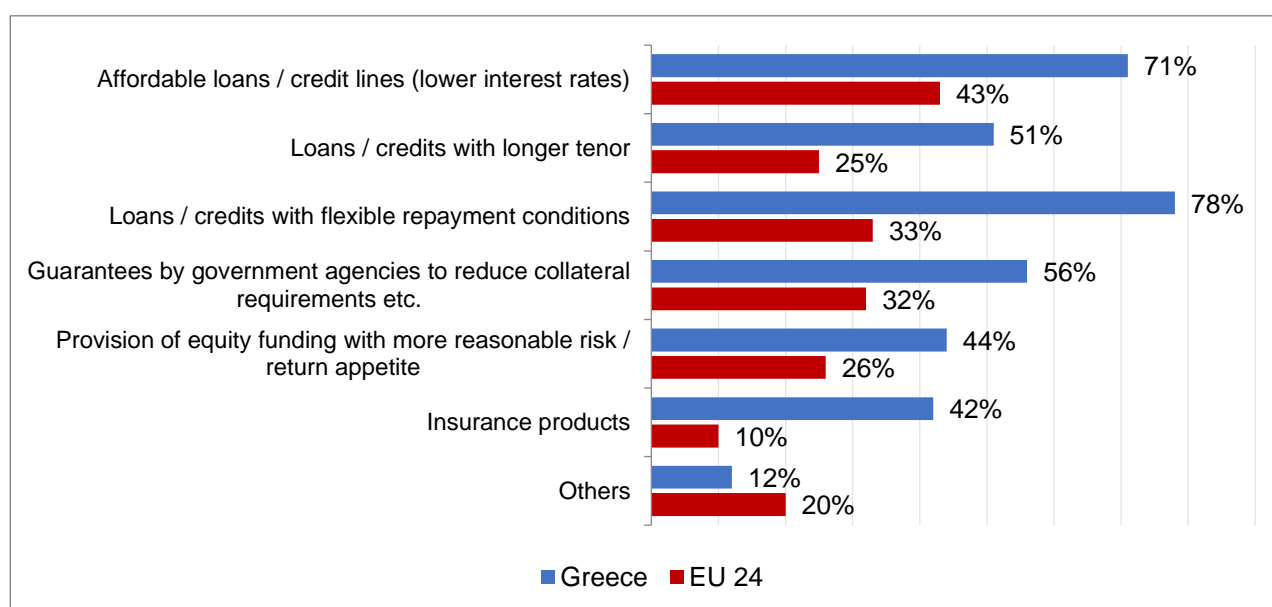


in presenting their business case convincingly.⁸⁷ Presenting the bank with projections, in terms of market demand and development, turnover, costs and profit, is often a challenge for them. In addition, new entrants find it difficult to assess their own repayment capacity.

Banks offer generic loan conditions that are not tailored towards the agri-food sector's needs and business cycle, which reduces the chance that agri-food enterprises will receive financing. It also affects their repayment capabilities, as some production could be seasonal, especially for micro-scale food processors and factories that do not import products during winter. There might also be fluctuations in the business activity depending on the availability of raw materials⁸⁸. Agri-food enterprises would thus benefit from repayment plans that take their business cycle into account, such as making bullet repayments as opposed to flat monthly payments.

Increased flexibility of repayments and lower costs of borrowing would increase access to finance for agri-food enterprises (Figure 24). According to the Agri-food survey, enterprises believe that the cost of loans, particularly for long-term loans, is too high. In addition, they identified a lack of flexibility in loan conditions as an additional problem (as was also identified by agricultural enterprises). A lack of collateral was specified as another important area that could also be addressed by governmental support.

Figure 24: Solutions to reduce difficulties in accessing finance in 2018



Source: Agri-food survey.

Technical support could be provided in order to improve the agri-food sector's financial know how. As outlined above, many small-sized agri-food enterprises, and particularly new entrants, find it challenging to prepare and present their business case convincingly to the banks. Providing technical support to those enterprises would improve their access to finance. Technical support should cover sustainable business management practices, such as cash flow management, financial planning and debt management.

Most agri-food enterprises in Greece (66% or two-thirds) believe that the financial needs of their enterprises will increase over the next 2-3 years. This share is about twice as high as in the EU 24 and it could be interpreted as an indirect signal that the financial system is on the right path, albeit very slow, to improving alongside the markets for agri-food production.⁸⁹

⁸⁷ Interviews, 2019.

⁸⁸ Ibid.

⁸⁹ Agri-food survey.



3.3. Analysis on the supply side of finance to the agri-food sector

This section provides an overview of the financial environment in which the agri-food sector in Greece operates. It describes the main available financial products, including any currently operating financial instruments targeting the agri-food sector, with national and/or EAFRD resources. The section draws its information from interviews with financial institutions, as well as from national statistics.

An attempt is made to give a description of the general conditions for accessing finance, such as interest rates and requirements for collateral, and the availability of funding for agri-food enterprises. Potential differences in availability of financial products across different types of agri-food enterprises are reviewed and analysed.

Key elements on the supply of finance to the Greek agri-food sector

- There are four commercial banks and three cooperative banks that supply finance to the agri-food sector. It is estimated that the four commercial banks have at least a 90% market share.
- While the financial crisis has made Greek banks more risk-averse also towards agri-food enterprises, financing investments in the agri-food sector is still considered less risky than in agriculture.
- In principle, the supply of financial products reflects the full range of 'business banking' products, including working capital and investment financing, complemented with loans providing the matching funds for EU grants and guarantee schemes. No specific financial product tailored to the sector is offered.
- Cooperatives and some processors use forward contracts with processors, wholesalers or exporters to cover 50% to 80% of their working capital needs.
- Interest rates range between 4% and 7% depending on the enterprise size, with small-sized enterprises being in a disadvantaged position.
- Supply of finance to start-ups is more limited, as they are considered a riskier segment and often lack collateral and credit history.
- According to banks, the main reasons loan applications are rejected are due to outstanding debt and a lack of guarantees and collateral.
- According to agri-food enterprises, banks do not provide enough information on the various financing tools available.

3.3.1. Description of finance environment and funding availability

3.3.1.1. Finance providers

The Greek banking landscape consists of four commercial banks and three cooperative banks that, in addition to financing agriculture, also provide financial services for the agri-food sector. The agri-food sector is dominated by Piraeus Bank. Other players include the National Bank of Greece, Eurobank Ergasia, Alpha Bank, Cooperative Bank of Karditsa, Pancretan Cooperative Bank, and Cooperative Bank of Thessaly. Most of their business loan products also include investments into buildings, as well as machinery and equipment purchase that, in principle, are also available to the agri-food sector.

Public information on the market share figures was not available from national statistics and could not be obtained from the focus group meetings. The four commercial banks are estimated to control over 90% of the market. More details regarding the finance providers are provided in section 2.3.1.2.



3.3.1.2. Financial products

Greek agri-food enterprises are offered mainly two financial products falling under the banks' category for 'business banking': investment loans and working capital loans. These two loan products can be differentiated based on the purpose, maturity and interest rate (Table 12). Banks do not offer specific products targeted to the needs of the sector, for example considering the seasonality of the farm production (see Section 3.2.2).

Table 12: Overview of financial products offered to agri-food enterprises, 2018

Type of Product		Purpose	Maturity	Interest Rate
(i)	Investment Loans	Capital investment	Medium and long-term loans	7.5%-8.0%
(ii)	Working Capital Products	Working capital	Short-term credit line	Flexible rate based on EURIBOR 1M/3M or Base Short-Term Loan Rate (BLR) and risk assessment

Source: EIB, *Assessing the potential use of financial instruments in Greece in agriculture, Final report, 2018*.

Publicly supported guarantees are also part of the banks' portfolios in the agri-food sector, as in the primary production sector (for description please see section 2.3.1.2).

The financial instruments, which the Greek EAFRD managing authority is setting up under the 2014-2020 RDP, aim to improve access to finance not only for farmers, but also for Greek agri-food enterprises. The EAFRD resources made available will be used to provide credit risk protection to financial Intermediaries (e.g. via capped (counter-) guarantees or risk-sharing), which will allow the latter to extend loans or finance leases financing investments to agriculture and agri-food sectors.

The **Rural Development Guarantees Fund**, managed by EIF is expected to be available in the market soon and to facilitate access to finance at better conditions providing loans between EUR 10 000 and EUR 5 million to farmers and agri-food businesses under the RDP sub-measures 4.1 and 4.2. The EUR 80 million financial contribution from the Greek RDP 2014-2020 will be leveraged through the selected financial institutions to originate a portfolio of loans up to EUR 400 million. As mentioned in section 2.3.1.2, in addition, the EU Commission has adopted a decision, due to the COVID-19 pandemic, to allow the possibility to cover stand-alone loans for working capital up to EUR 200 000 for farmers and agri-food businesses.

Furthermore, at the time of writing this report, following the recommendations of the ex-ante assessment, the Greek government is in the process of setting up a **risk-sharing micro-loan instrument** (loans of up to EUR 25 000) aimed at covering micro-loan applications to agriculture and agri-food businesses.

3.3.1.3. Description of the financing market

The financial inclusion of agri-food producers is highly unequal. The increasing concentration of the domestic grocery retail sector over the last few years has increased the bargaining power of large domestic supermarket chains and led to downward pressure in the prices of agri-food products.⁹⁰ This has eroded the margins of agri-food enterprises and increased their working capital needs.⁹¹ This situation limits access to finance for small-sized agri-food enterprises, which are more subject to the reduction of economic margins and less resilient to possible temporary shocks.

90 The Sklavenitis Group (operating under Sklavenitis, Chalkiadakis, Halkiadakis and The Mart brands) is the market leader and had a market share of 30 % in 2018, Source: ekathimerini.com: Over 500 000 customers every day at Sklavenitis, 25.09.2019, <https://www.ekathimerini.com/244880/article/ekathimerini/business/over-500000-customers-every-day-at-sklavenitis>.

91 EIB, 2018, *Assessing the potential use of financial instruments in Greece in agriculture - A study in support of the ex-ante assessment for the deployment of EAFRD resources through financial instruments during the 2014-2020 programming period*, Final report.



Large processors have relatively easy access to finance as they have historical records in the banking system and a long-standing track record.⁹² Interest rates applied to such enterprises are favourable, varying from 4% to 6%. Small agri-food processors find it more challenging to access finance. However, they receive a more favourable treatment from the banking system when they can prove sustainable sales (e.g. through long-term supply contracts). Interest rates for financing small processors fluctuate from 5.5% to 7%. These figures are consistent with the economy-wide data on interest rates supplied by the Bank of Greece (Table 13).

Table 13: Interest rates on outstanding amounts of EUR denominated loans by domestic MFIs to EURO area residents, 2019, (annual percentage changes)

Period	Loans to sole proprietors			Loans to non-financial corporations			Average Rate
	Up to 1 year	1 to 5 years	> 5 years	Up to 1 year	1 to 5 years	> 5 years	
2016	7.32	6.19	5.18	5.62	4.89	3.98	4.92
2017	7.1	6.24	4.97	5.25	4.69	3.78	4.64
2018	6.92	6.36	4.64	4.99	4.24	3.76	4.36
1 st semester 2019	6.83	6.22	4.56	4.79	3.96	3.61	4.19

Source: *Bulletin of Conjunctural Indicators of the Central Bank of Greece, March-April 2019.*

The supply of finance to start-ups and new companies is more limited. This is regardless of the interest rates they would be willing to pay. These enterprises are considered as riskier and as lacking collateral and banking history.

Banks are still suffering from the impact of the financial crisis and NPLs in the sector remain high – in June 2019, NPLs were at 35.9% for the agri-food sector. However, this was only 84% of the NPL levels of total business loans. In addition, given that NPLs were at 50% in 2015, they have decreased significantly over the last few years (Table 14). Still, banks remain cautious and are unable to finance enterprises that lack credit history or repayments capacity.

Table 14: Greece: Evolution of NPL on the agri-food sector, 2015 - 2019, % of all NPL

	NPL of agri-food sector	Total NPL of other economic sectors
December 2015	50%	49.0%
December 2016	44.7%	49.7%
December 2017	41.7%	47.4%
December 2018	36.8%	44.7%
June 2019	35.9%	42.6%

Source: *Bank of Greece, 2020.*

Banks require guarantees, but they also consider factoring and commercial contracts as collateral for financing. These may fluctuate from 50% to 100% of the requested loan amount.

92 Interviews, 2019.



3.3.2. Analysis of the supply of finance

Outstanding loan amounts in the manufacturing sector have been decreasing in the past four years.

Due to a lack of publicly available information, the exact supply of agri-food loans over the past years. However, the volume of outstanding agri-food loans are included in the Central Bank of Greece data under the category of loans to the manufacturing industry. The evolution of this is used as a proxy for the evolution in agri-food, a large component of Greek manufacturing sector. Assuming that the agri-food sector might account for one quarter of the outstanding portfolio (⁹³), the outstanding amounts in September 2017 would have been EUR 4.45 billion. This would be broadly in line with the estimates on the debt of specific agri-food sub-sectors (Table 10).

Table 15: Credit to domestic non-financial corporations by domestic MFIs, excluding the Bank of Greece, EUR billion, broken down by branch of activity

End of period	Sep-13	Sep-14	Sep-15	Sep-16	Sep-17	Sep-18	Sep-19
Manufacturing	20.8	20.52	20.59	19.75	17.86	17.50	16.38
Debt securities	0.02	0	0	0	0.01	0.02	0.01
Loans	20.82	20.52	20.59	19.75	17.85	17.48	16.37
of which loans in EUR	20.59	20.31	20.38	19.57	17.64	17.14	16.08
Up to 1 year	9.20	8.44	8.27	7.69	7.02	6.88	6.39
Over 1 and up to 5 years	4.84	5.54	5.90	5.53	4.39	3.79	3.50
Over 5 years	6.54	6.33	6.21	6.35	6.23	6.48	6.19

Source: Bank of Greece. The reader should bear in mind that the agri-food sector might account for nearly one quarter of these values.

The fact that the number of outstanding loans decreased from 2013 to 2019 demonstrates that **investment capital growth for the agri-food sector has been negative**. During the interviews conducted for this study, stakeholders expressed views that amongst others, the availability of EAFRD support measures plays an important role for driving investment in the sector and this respectively might have an impact on the growth trends.

The role of the formal banking sector in supplying finance can be strengthened further. As discussed in section 2.3.2, the Agri-food survey provides an optimistic outlook for the future, with higher approval rates of loan applications after years of downturn. This shows an improvement in the sentiment and health of agri-food enterprises, as well as a clear indication from the banks to support the sector.

Nevertheless, **financial inclusion of agri-food enterprises remains limited**.⁹⁴ As discussed in section 3.2.2, 93% of enterprises have identified their own funds as their most important source of finance. It is remarkable that only 1% of the agri-food enterprises identified long-term loans as an important source of finance over the last three years, compared to 7% for medium-term loans and 13% for short-term loans.

⁹³ Based on Focus Group discussions and especially the opinion of the Bank representatives.

⁹⁴ Interviews.



While the financial crisis has made banks more risk-averse to financing investments in general, including in the agri-food sector, they are still more willing to fund this sector than agriculture. The ex-ante assessment for the use of EAFRD financial instruments in Greece,⁹⁵ and the discussions with interviewees, identified a lack of information on available financing instruments. Agri-food enterprises are not aware of all the possible options for financing, especially when it comes to business development. In addition, some enterprises are reluctant to approach the financial system, having been discouraged in the past. They find the paperwork and documentation needed overwhelming, and they feel that the banking system is too cumbersome, with too much time needing to be invested.

95 EIB, 2018, Assessing the potential use of financial instruments in Greece in agriculture - A study in support of the ex-ante assessment for the deployment of EAFRD resources through financial instruments during the 2014-2020 programming period, Final report..



3.4. Financing gap in the agri-food sector

This section presents an assessment of the financing gap in the Greek agri-food sector per firm-size and loan maturity.

Key elements of the financing gap in the Greek Agri-food sector

- The financing gap is estimated to be EUR 1.8 billion.
- Small enterprises have the largest share of this gap.
- Access to long-term financing is the biggest issue.
- The main drivers of the gap are a lack of collateral and credit history. The limited business and financial management skills of the enterprises also reduce their access to finance.
- Start-ups and young entrepreneurs are helped by EAFRD support to cover investment capital needs. Their lack of credit history and collateral for guarantees results, however, in even more challenges when attempting to access finance.
- The financing gap is also driven by the numerous processing businesses that are discouraged from applying for credit due to unfavourable loan conditions offered by the banks.
- In addition, risk averse banks and the relatively high concentration of the financial market constrain the supply of finance to the agri-food sector.

This section presents an estimate of the total volume of unmet financing needs of financially viable agri-food enterprises, defined as financing gap, for 2018. The estimate is calculated by multiplying the total number of firms by the proportion of financially viable firms reporting unmet demand for finance multiplied, in turn, by the average obtained loan value to firms.

$$\text{Financing gap} = \text{Number of firms} \times \text{percentage of financially viable firms with unmet demand} \times \text{average loan volume}$$

All the calculations are based on the results of the Agri-food survey for Greek firms (see Annex A.5 for more information). The methodology used for calculating the gap is the same as the methodology used for the agriculture sector (see Annex A.3).

The financing gap arises from unmet financing demand from economically viable firms.⁹⁶ As explained in section 0, the unmet demand for finance includes:

- (i) lending applied for but not obtained; or
- (ii) a lending offer refused by the potential borrower; as well as
- (iii) lending not applied for due to expected rejection.

For the purpose of this study, 'turnover growth' is used as a proxy of firm viability. In particular, we make the hypothesis that all enterprises which reported a stable (non-negative) turnover growth can be considered as viable.

⁹⁶ The financing gap presented in this section is different from the total unmet demand presented in Section 3.2.2. In the quantification of the total unmet demand, all the enterprises in the population applying for finance are considered independent from their economic viability.



The financing gap for the Greek agri-food sector is estimated at EUR 1.8 billion (Table 16 and Figure 25). It mainly concerns small-sized firms. The type of loans for which the gap is the largest are long-term loans. These loans account for over half the total financing gap.

Short-term financing, in the form of credit lines/bank overdrafts and short-term loans, is easier to obtain because firms can use sales contracts as collateral, as banks are willing to demonstrate greater flexibility in this regard.

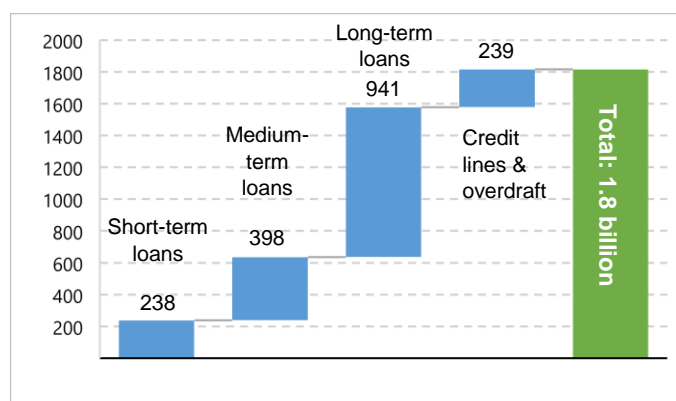
The ex-ante assessment for use of EAFRD financial instruments provided a comparable gap for agri-food enterprises. The total financing gap is estimated to range between EUR 951.2 million and EUR 1 478.1 million. In line with the findings of the Agri-food survey, the ex-ante assessment found that the gap is largest for medium and long-term loans.⁹⁷

Table 16: Financing gap by firm size in the agri-food sector, 2018, EUR million

	Total	Short-term Loan	Medium-term Loans	Long-term Loans	Credit lines/bank overdraft
Small-sized firms	1 630.3	208.2	358.3	849.1	214.6
Medium-sized firms	141.1	25.1	29.7	69.0	17.4
Large-sized firms	44.6	4.7	9.9	23.2	6.7
Total	1 815.9	238.0	397.9	941.3	238.8

Source: Agri-food survey.

Figure 25: Financing gap by product in the agri-food sector, 2018, EUR million



Source: Calculations based on the results from the Agri-food survey.

Based on the Agri-food survey results, and interviews and focus groups discussions, **the main drivers of the financing gap include demand-side constraints, such as a lack of valuable collateral as well as an absence of credit history.** In addition, agri-food enterprises also consider bank terms and conditions as unfavourable, and therefore they refrain from applying for finance.

⁹⁷ EIB, 2018, Assessing the potential use of financial instruments in Greece in agriculture - A study in support of the ex-ante assessment for the deployment of EAFRD resources through financial instruments during the 2014-2020 programming period, Final report. For the methodology used see Section 2.4



Smaller enterprises find it particularly challenging to access financing. This is because they often lack a historical record in the banking system, have a less extended sales network, shorter relationships with the banking system, and have fewer contracts to pledge as guarantees for financing. Additionally, there is a substantial share of small enterprises that lack knowledge of the financing opportunities available to them (e.g. public financing through RDP sub-measures and the national aid scheme), or to whom the overall application procedure seems too lengthy or complicated.

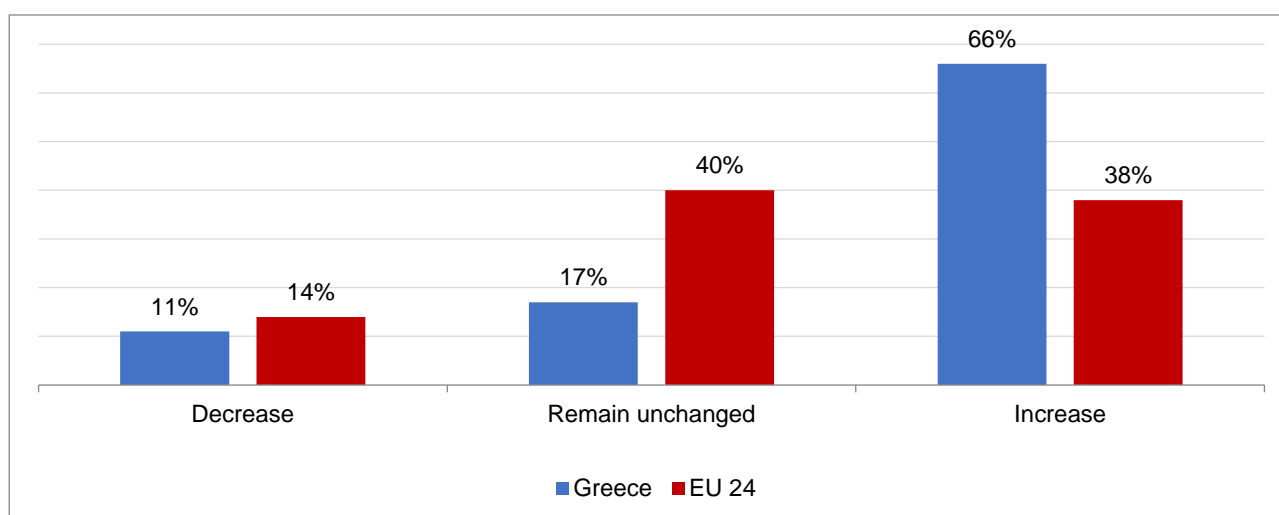
Supply side constraints have also been identified, such as the risk-averse behaviour of banks and the limited competition within the banking sector that allows banks to be very selective in terms of clients.

The financing gap for new entrepreneurs and start-ups can be roughly estimated at between 30% to 40% of the total financing gap. This estimation is mainly based on the previous experience of the focus group participants with the implementation of the EAFRD measures and the national aid schemes.

Start-ups and new entrants, in particular, would greatly benefit from technical support. This is because they face problems presenting viable business cases. Strengthening their financial management skills, would increase their bankability.

The evolution of the financing gap depends, to a large extent, on the implementation of EU financial support. In the next three years, demand is expected to rise, also driven by investment support initiatives like sub-measure 4.2 of the RDP. In fact, 66% of respondents expect the needs of enterprises to increase in the next 2-3 years. Unless the drivers of the gap are addressed, it can be expected to increase.

Figure 26: Agri-food companies' expectations on future financing needs, 2018



Source: Agri-food survey.



3.5. Conclusions

The Greek agri-food sector is not particularly capital intensive, and its investment rate⁹⁸ is low. This is due to the contraction of the Greek economy that led to the slow repayment of old loans and longer amortisation periods. Capital controls have also played a major role, as Greek enterprises have lost established market shares abroad. Consequently, enterprises are reluctant to invest. However, gross investments for both food products and beverages have stabilised in recent years, with beverages even increasing slightly.

Like for the agriculture sector, the outstanding loan portfolio to the manufacturing sector has been decreasing in recent years. This is caused by the lower levels of disbursement and higher levels of repayment. Banks are still faced with limited liquidity and thus cannot finance all applications submitted. In addition, the limited competition allows finance providers to be very conservative and risk-averse in their financing decisions.

Greek agri-food enterprises mostly demand finance to expand capacity, meet their inventory and working capital needs, and to develop new products. Capacity expansion includes the purchase of processing equipment, facilities, transport vehicles and machinery. Amongst others, fruit and vegetable processors (as well as the canning industry) often need to invest into cooling facilities for storage and working capital is needed to purchase raw materials. New product development includes innovative packaging and branding (e.g. Protected Designation of Origin). The EAFRD also facilitates the investments of agri-food enterprises. The demand for grants for investment support is very high, which cannot be covered by the grant budgets made available until now, indicating a potential high unmet demand for finance by the agri-food sector.

Many agri-food enterprises are rejected on their loan applications, or discouraged to apply for funding. This is mostly due to the absence of sufficient levels of valuable assets that can be used as collateral, outstanding debt (impacting the repayment capacity) and an absence of credit history. Start-ups and new entrants are particularly negatively affected by the absence of sufficient collateral and a lack of credit history.

The financing gap for the Greek agri-food sector is estimated at EUR 1.8 billion. It mainly concerns small-sized firms. The gap is largest for long-term loans, which account for over half of the total financing gap.

Based on the results of the analysis, several recommendations for public intervention could be considered:

- The EAFRD guarantee instrument that is about to be launched, is expected to improve the conditions for access to finance for agri-food enterprises. However, as already mentioned for the agriculture sector, it is unlikely that the instrument will be able to bring the market to normal functionality by the end of the current programming period. At a later stage, with implementation progressing, an assessment of the current set-up should be done to look at:
 - The adequacy of the guarantee capital and the expected leverage.
 - The concrete ability to address the constraints of small-sized enterprises and new entrants, which according to this analysis are the most constrained businesses.
 - The performance of the instrument and the conditions of the underlining loans offered by banks
- The EAFRD micro-loan scheme, which is under implementation, would also need time to evolve. A proper assessment of its performance and efficiency, as well as impact, should be done at a later stage, in light of a decision for the next programming period.
- To further stimulate banks' lending for larger investments and loans of higher amounts, above micro-financing, a risk-sharing loan instrument, complementing the EAFRD guarantee fund, might also be considered. It would combine the necessary risk coverage for banks with a higher reduction of the interest rates, which in Greece are far higher than the Euro area average, and are particularly high for small-sized enterprises. Its target could be enterprises of small to medium scale, who also aim at exporting products.
- Independent from the type of financial instrument implemented, the opportunities offered by the new legal framework, such as the easier combination of financial instruments, interest rate subsidy and grant support, might offer interesting opportunities to increase the effectiveness of the instrument towards the most affected segments.

98 Equal to investment/value added, at factor costs.



- Technical support, in the form of training and advisory services, might be provided to micro and small-sized enterprises to help improve their knowledge on the banking sector and raise the quality of their loan applications, thereby also making it easier for banks to evaluate their applications.



ANNEX

A.1. References

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A.2. Stakeholders interviewed

Type of Organisation	Name of Institution
Consultant	Agribusiness Consulting
Cooperative farming and processing	Triantafyllopoulou Winery
Farmer's and processing organisation	Venus Fruit
Financial Institution	Bank of Greece
Financial Institution	Piraeus Bank
Managing Authority	Ministry of Agricultural Development Development and Food
Managing Authority	Managing Auth. RDP
Processor	Attiki Honey
Producer organisation	Union of Cooperatives of Thessaloniki
Producer organisation	Velvita Peaches
Young farmer's organisation	Panhellenic Young Farmers Association



A.3. Methodology for financial gap calculation

This section of the report clarifies the terminology and proposes a method for estimating the financial gap formula for Target Group I and Target Group II. This version of the formula aligns with the *fi-compass* Factsheet on the financial gap in agriculture and the 2013 EC working paper on the Ex-ante assessment of the EU SME initiative. It is based on the data from the *fi-compass* survey of 7 600 farms carried out in mid-2018.

Financing gap definition. We define the financing gap to be the *unmet credit demand due to constrained or missing access to financing*. This definition includes market failures as well as other types of constraints.

Operationalisation of the financing gap formula. Each component of the formula can be obtained in the survey data under the following assumptions:

Rejected credit applications include applications that are rejected by banks (or other credit organisations) and offered from banks but turned down by the farmers/firms.

The share of Viable firms is measured by the share of total firms that have a non-negative turnover growth⁹⁹ or a non-negative turnover and that are not in a situation of cost increase (these two criteria might be used to obtain an upper and lower boundary for the calculations).

Discouraged application is proxied by the average size (financial value) of loan applications made by firms that applied for a similar type of financial product. This allows for grouping firms which did not apply for fear of rejection with rejected firms (step 2 and 4 below).

To calculate the financial gap, we define the following four steps. Each step refers to the latest surveyed year for both the surveys.

Step1: Ratio of viable farms with unmet demand for finance

Rejection Rate^{Viable} : This refers to the share of viable enterprises whose application was unsuccessful. It is measured by the ratio of enterprises with unsuccessful applications over the total population. It includes rejected applications by the lending institution and offers turned down by the applicant itself.

$$Rejection Rate_j^{Viable} = \frac{Number\ of\ Rejected\ Viable\ Firms}{Total\ survey\ population_j}$$

with and $j = Short - term, Medium - term, Long - term\ Loans, Credit\ lines$.

Discouraged Rate^{Viable} : It represents the share of viable enterprise that were self-discouraged because of fear of rejection. It is computed as follows:

$$Discouraged Rate_j^{Viable} = \frac{Number\ of\ Discouraged\ Viable\ Firms}{Total\ survey\ population_j}$$

with and $j = Short - term, Medium - term, Long - term\ Loans, Credit\ lines$.

Unmet demand Rate^{Viable} : The total share of survey respondents with unmet demand for finance is obtained by summing the two rates:

$$Unmet\ demand\ Rate_j^{Viable} = Rejection\ Rate_j + Discouraged\ Rate_j$$

⁹⁹ A turnover that has been stable or growing in the last year.



Step 2: Number of farms rejected or discouraged

N. of Farms in unmet demand_{ij}^{Viable}: In order to get the number of farms constrained in accessing financing, we multiply total share of viable respondents with unmet demand from the survey sample (Step 1) by the total farm population from Eurostat by farm size.

For TGI, this total population is adjusted by removing farms having a Standard Output (SO) below EUR 8 000 EUR 4 000 or EUR 2 000, depending on the Purchasing Power Parity Index (PPI) of the country. The EUR 8 000 EUR 4 000 or EUR 2 000 SO thresholds are used for countries with their 2017 PPI respectively above the 66th percentile, between the 33rd and 66th percentile, or below the 33rd percentile of the PPI index in the EU. We assume equal rates of rejections among small, medium and large-sized farms, and disentangle the share of farms with constrained in obtaining credit by financing product.

$$N. of Farms rejected_{ij}^{Viable} = Eurostat Farm population_i * Rejection Rate_j^{Viable}$$

$$N. of Farms discouraged_{ij}^{Viable} = Eurostat Farm population_i * Discouraged Rate_j^{Viable}$$

$$N. of Farms in unmet demand_{ij}^{Viable} = N. of Farms rejected_{ij} + N. of Farms discouraged_{ij}$$

for $i = Small, Medium, Large$

and $j = Short - term, Medium - term, Long - term Loans, Credit lines$.

Step 3: Standard Loan Application Size

Application Size_{ij}: For each type of financial product and each firm/farm size category, a standard size of application is constructed. A starting point for Country experts might be the EU wide geometric mean, adjusted at country level with the purchasing power party index. This value might be further adjusted based on the results of the analysis.

Step 4: Financial gap across farm size and product type

The financing gap is obtained by multiplying the amount of loans (Step 3) by the total number of farms facing constrained access to credit as calculated in Step 2.

Note: when the survey sample size allows, an indicative breakdown of the gap will be provided for young farmers per member state. The breakdown is obtained from the age ratio within rejected loan applications.

$$Financial Gap_{ij} = Application Size_{ij} \times N. of Farms in unmet demand_{ij}^{Viable}$$

for $i = Small, Medium, Large$

and $j = Short - term, Medium - term, Long - term Loans, Credit lines$.

Finally, the total gap is the sum of figures across size classes (i) and products (j).

Private financing (obtained from family or friends) will be included in a separate quantification for countries with a high share of private lending.

The methodology for the gap calculation for TG II is the same as for TG I, but no lower limit on the size of enterprises is applied in step 2 (all enterprises in the population are included in the calculation). For Target Group II, we obtain each component of the financing gap formula from the following questions in the Agri-food survey of Target Group II carried out in mid-2019:

Lending/funding applied to: For what kind of finance did you apply in 2018 and with what amount?

Lending not applied to: For what reasons did you not apply for some kind of finance?



Rejected: What was the result of your application?

Viability: Has the following company indicator changed in the last year: Turnover?

It has to be noted that the surveys to be used by the Study for the calculations, the *fi-compass* farm survey and the Agri-food survey, are designed to be statistically representative at national level. Therefore regionalised figures and calculations could be applied with a limited dimension and for only few countries. Information from interviews may complement such regionalised descriptions.

For Greece Table 17 and Table 18 report the elements used in the calculation of the financing gap for the agriculture and agri-food sector, respectively.

Table 17: Elements for the calculation of the financing gap in the agriculture sector in 2017

		Short-term Loans	Medium- term Loans	Long-term Loans	Credit lines/bank overdraft
Lower bound: farms with a non-negative turnover growth and no cost increase	Share of respondents rejected by creditor or farmer	0.36%	0.00%	0.72%	0.00%
	Share of respondents that have not applied because of possible rejection	8.13%	8.11%	7.04%	7.40%
	Total (sum of rejected and discouraged)	8.48%	8.11%	7.76%	7.40%
Upper bound: farms with a non-negative turnover growth	Share of respondents rejected by creditor or farmer	1.87%	0.36%	1.87%	0.72%
	Share of respondents that have not applied because of possible rejection	23.85%	25.70%	22.77%	24.28%
	Total (sum of rejected and discouraged)	25.72%	26.06%	24.63%	25.00%
Total unmet demand: all farms	Share of respondents rejected by creditor or farmer	2.94%	0.72%	2.74%	1.51%
	Share of respondents that have not applied because of possible rejection	44.20%	47.55%	43.09%	45.69%
	Total (sum of rejected and discouraged)	47.14%	48.27%	45.83%	47.20%
Farms with constrained access to finance, lower bound	Small-sized farms	15 308	15 061	13 525	13 741
	Medium-sized farms	1 385	1 362	1 224	1 243
	Large-sized farms	55	54	49	50
Farms with constrained access to finance, upper bound	Small-sized farms	61 065	62 507	58 465	59 807
	Medium-sized farms	5 524	5 655	5 289	5 411
	Large-sized farms	221	226	211	216
Standard loan application size (EUR)	Small-sized farms	14 755	35 792	98 710	13 321
	Medium-sized farms	18 694	34 019	107 183	14 776
	Large-sized farms	55 137	86 572	19 993	78 695

Source: *fi-compass* survey.

**Table 18:** Elements used for the calculation of the financing gap in the agri-food sector in 2018

		Short-term Loans	Medium-term Loans	Long-term Loans	Credit lines/bank overdraft
Firms with a non-negative turnover growth	Share of respondents rejected by creditor or firm	1.41%	0.23%	0.45%	0.00%
	Share of respondents that have not applied because of possible rejection	16.61%	22.43%	18.47%	16.45%
	Total (sum of rejected and discouraged)	18.02%	22.65%	18.93%	16.45%
Total unmet demand: all firms	Share of respondents rejected by creditor or firm	1.86%	0.45%	0.45%	0.00%
	Share of respondents that have not applied because of possible rejection	16.84%	22.65%	18.70%	16.68%
	Total (sum of rejected and discouraged)	18.70%	23.11%	19.15%	16.68%
Firms with constrained access to finance	Small-sized firms	2 997	3 768	3 148	2 736
	Medium-sized firms	45	57	48	41
	Large-sized firms	9	11	9	8
Standard loan application size (EUR)	Small-sized firms	69 467	95 098	269 731	78 436
	Medium-sized firms	551 892	519 688	1 445 675	419 909
	Large-sized firms	544 218	910 203	2 555 079	854 000

Source: Agri-food survey.



A.4. TG I: *fi-compass* survey

The analysis for the agriculture sector in the report relies on the *fi-compass* survey on financial needs of EU agricultural enterprises, conducted from April to June 2018 across 24 EU Member States (EU 24): Austria, Belgium, Bulgaria, Croatia, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, The Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden.

The survey was carried out targeting the completion of 300 questionnaires for each Member State. The target was reached in all countries except Lithuania (for few interviews) and Ireland, where the farmers were less confident in sharing information.

Overall, the survey consists of 7 659 respondents, of which 73% own the agricultural enterprise, 8% are member owners, 8% are owner's relatives, 7% administrative managers, 3% other employees, and 1% human resource managers. Table 19 reports the number of respondents by Member State.

Table 19: *fi-compass* survey sample size per Member State

Country	No. of Respondents	Country	No. of Respondents
Belgium	350	Latvia	315
Bulgaria	351	Lithuania	296
Czech Republic	309	Hungary	315
Denmark	302	The Netherlands	301
Germany	376	Austria	320
Estonia	310	Poland	320
Ireland	151	Portugal	349
Greece	350	Romania	350
Spain	354	Slovenia	300
France	350	Slovakia	312
Croatia	300	Finland	327
Italy	351	Sweden	300

Source: *fi-compass* survey.

Additionally, the sample covers 198 (94.7%) of the 209 NUTS2 regions in the 24 Member States. These regions have nearly 99% of EU 24 farms

Almost 85% of questions were completely answered and 98% of all questions were answered on average. The most problematic questions were on confidential, financial aspects. Only 50% of interviewees replied concerning their turnover, 67% gave the specific amount of their loan and 56% the exact interest rate of their loan.

For additional information, please refer to <https://www.fi-compass.eu/publication/brochures/survey-financial-needs-and-access-finance-eu-agricultural-enterprises>.



A.5. TG II: Agri-food survey

To mirror the *fi-compass* survey on the needs of EU agricultural enterprises, a computer assisted telephone interviewing (CATI) survey was conducted for the agri-food processing sector in mid-2019.

For the purpose of this survey, a commercial global register was used in each country. A commercial global register provides data in a single source, harmonises the information collected on businesses (e.g. Industrial classification, employee size, turnover, contact names etc.) and offers software platforms that allow users to easily access a sample of businesses for commercial purposes.

The survey was conducted targeting the completion of a minimum of 45 questionnaires for each Member State. The minimum sample size obtained varied per country mirroring the differences in the size of the sector. Table 20 reports the sample size per country

Table 20: Agri-food survey sample size per Member State

Country	No. of Respondents	Country	No. of Respondents
Belgium	100	Latvia	50
Bulgaria	100	Lithuania	50
Czech Republic	66	Hungary	46
Denmark	50	The Netherlands	80
Germany	186	Austria	50
Estonia	50	Poland	130
Ireland	50	Portugal	100
Greece	70	Romania	150
Spain	197	Slovenia	50
France	180	Slovakia	50
Croatia	45	Finland	50
Italy	200	Sweden	48

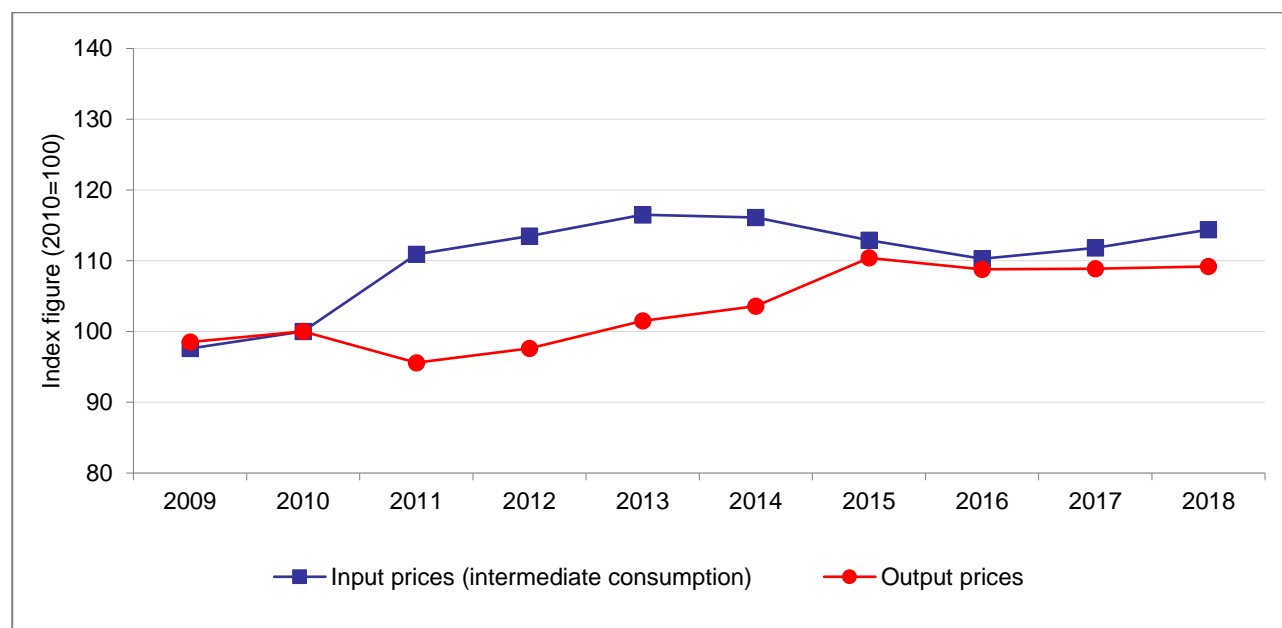
Source: Agri-food survey.

The survey consists of 2 148 respondents, of which 85% were enterprises operating in the manufacturing food sector, and 15% in the manufacturing of beverages.



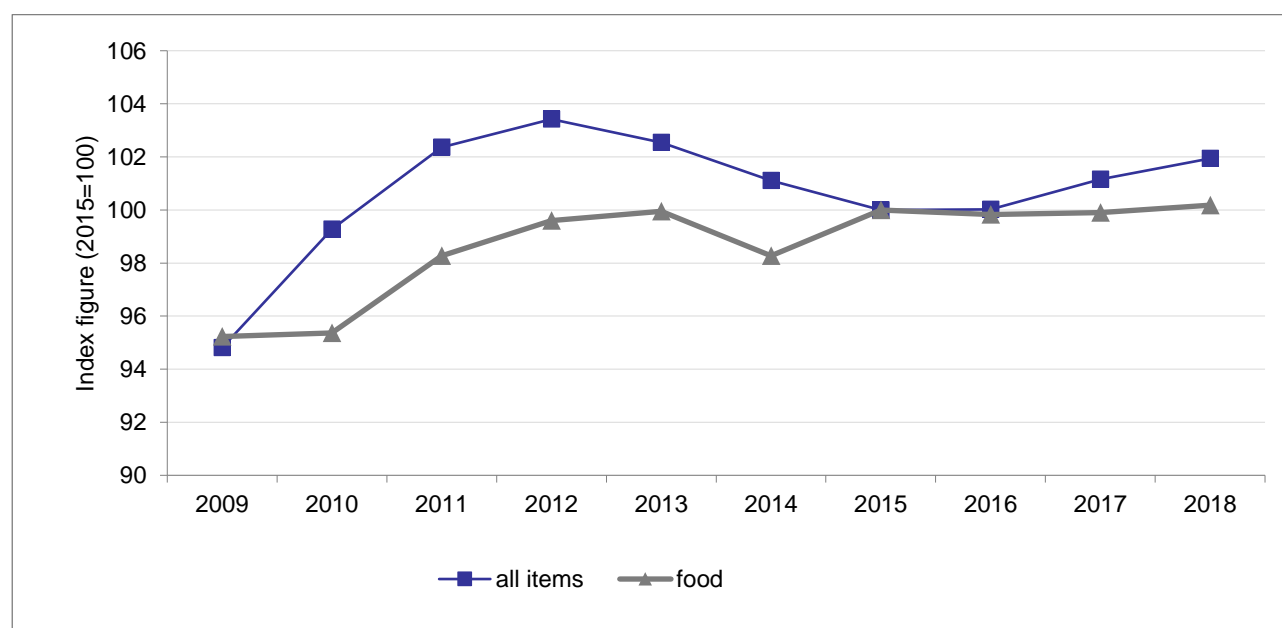
A.6. Data from the agriculture statistical factsheet

Figure 27: Evolution of agriculture input and output prices, 2009-2018



Source: European Commission, DG AGRI, June 2019, Statistical Factsheet for Greece.

Figure 28: Evolution of harmonised indices of consumer prices, 2009-2018



Source: European Commission, DG AGRI, June 2019, Statistical Factsheet for Greece.

