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

June 2020

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This document has been prepared with the support of a consortium of Ecorys and Frankfurt School of Finance & Management gGmbH.

This document is to be referred as: *fi-compass*, 2020, Financial needs in the agriculture and agri-food sectors in France, Study report, 78 pages. Available at: https://www.fi-compass.eu/sites/default/files/publications/financial_needs_agriculture_agrifood_sectors_France_0.pdf.

Glossary and definitions

Expression	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.
BPCE	Banque Populaire-Caisse d'Epargne
Bpifrance	Banque Publique d'Investissement
ANIA	Association Nationale des Industries Alimentaires
CAMCA	Caisse d'Assurances Mutuelles du Crédit Agricole
CEGC	Compagnie Européenne de Garanties et Cautions
CAP	Common Agricultural Policy
CFC	Consumption of fixed capital
CUMA	Coopérative d'Utilisation de Matériel Agricole
DJA	Dotation Jeunes Agriculteurs
EAFRD	European Agricultural Fund for Rural Development
EaSI	European Union Programme for Employment and Social Innovation
ECB	European Central Bank
EFSI	*European Fund for Strategic Investments*
EIB	European Investment Bank
EIF	European Investment Fund
EU	European Union
EU 24	The 24 EU Member States covered by the *fi-compass* '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

fi-compass survey[1]	Survey on financial needs and access to finance of 7 600 EU agricultural enterprises carried out by *fi-compass* in the period April-June 2018 and based on respondents' financial data from 2017.
FOSTER	Fonds Occitanie de Soutien Territorial aux Entreprises Régionales
FNPL	Fédération National des Producteurs de Lait
GDP	Gross Domestic Product
GFCF	Gross fixed capital formation
GUFA	Groupement d'Utilisation de Financements Agricoles
GVA	Gross Value Added
ha	Hectare
IACS	Integrated Administration and Control System
INAF	Initiative Nationale pour l'Agriculture Française
INPAQ	L'Interprofession Porcine d'Aquitaine
INRAE	Institut National de Recherche pour l'Agriculture, l'Alimentation et l'Environnement
INSEE	Institut National de la Statistique et des études économiques – National Institute of Statistics and Economic Studies
ODR	Observatoire du Développement Rural
PCAEA	Plans de Compétitivité et d'Adaptation des Exploitations Agricoles
RDP	Rural Development Programme
SAFER	Société d'Aménagement Foncier et d'Etablissement Rural
SIAGI	Société Interprofessionnelle Artisanale de Garantie d'Investissements
SMEs[2]	Small and medium-sized enterprises
SO	Standard Output
SOGAL-SOCAMUEL	Société de garantie des entreprises laitières agricoles et alimentaires
UAA	Utilised Agricultural Area

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-agricultural-enterprises.

2 SMEs are defined in the EU recommendation 2003/361. It includes micro (less than 10 employees), small (less than 50 employees) and medium-sized enterprises (less than 250 employees). https://ec.europa.eu/growth/smes/business-friendly-environment/sme-definition_en.

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EXECUTIVE SUMMARY

This report gives an insight into agriculture and agri-food financing in France[3] by providing an understanding of investment drivers, financing supply and financing difficulties as well as on the existing financing gap.

The analysis draws on the results from two comprehensive and representative EU-level surveys carried out in 2018 and 2019. These were 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 France

The agricultural finance market in France has been steadily expanding in recent years, with the total outstanding loan volume to the sector increasing from EUR 47.7 billion in 2015 to EUR 52.7 billion in 2018. However, investment rates in the sector have been volatile over the same period, with a slightly declining trend, and productivity growth has stagnated. The demand for credit in the sector is highly concentrated, with most coming from large-sized farms (over 100 ha) with sizeable investment projects. Overall, 15% of farms account for 65% of the total loan volume.

The demand for finance in the French agriculture sector is driven by several investment drivers:

(i) **Expansion of farms**: With the aim of improving their economies of scale, average-size farms are expanding their capacity through investments in land and larger infrastructure. Farms are also expanding through investments in non-agricultural activities, such as renewable energy production and agri-tourism.

(ii) **Modernisation and innovation**: Farms are investing in more efficient machinery and equipment and in better performing technical facilities. This dynamic includes changes in production processes to meet consumer demand and regulatory requirements (e.g. organic and local production, animal welfare standards). Investments in digital transformation generate higher returns through smart machinery, drones and sensor technologies, as well as decision support data analytics. Innovations are also taking place in niche sub-sectors (e.g. urban farming, niche products, indoor farming, organic production, short circuits).

(iii) **Climate change adaptation**: Significant investments are linked to strategies that aim to mitigate the impact of climate change on agriculture and to improve resilience. These strategies include new agricultural practices (e.g. winter coverage of agricultural land, no-tillage, hedge plantations), as well as diversification of production. Investments in irrigation infrastructure and water reservoirs are also being made to improve farm resilience.

In addition, the need for working capital is increasing. This trend in financial needs is driven by sales growth (the increased average output level per farm implies higher input and production costs per farm), new practices to cope with volatility in input and output markets (including innovative financial solutions such as Over-The-Counter (OTC)[4] contracts) and needs arising during transition periods (e.g. for farmers shifting from conventional to organic production). Currently, a large part of working capital is provided by input suppliers, including cooperatives, through credit lines. Additional working capital is provided by banks through short-term credit and credit lines, as well as medium and long-term loans. A substantial need for additional working capital has emerged due to the high demand for investment loans, combined with the investment needs of young farmers starting new farms and for farm expansion, transition or diversification. Farmers' working capital needs are estimated to be around 20-30% of the investment amount.

3 Analysis conducted for Metropolitan France. Eurostat and national statistics used in the report include overseas territories.

4 Over-The-Counter (OTC) refers to the process of unregulated contracts for physical assets.

Overall, the conditions for the access to credit in France are favourable thanks to a healthy banking sector and low interest rates. In addition, French farmers can count on a group of financial intermediaries with a high level of specialisation in the sector and a long tradition of lending to agriculture.

However, these **specialised intermediaries have dominant market positions, with one bank controlling almost 70% of the market and four intermediaries making up almost the entire market**. Although no major constraints emerge from the analysis of the supply of finance, this level of market concentration may allow banks to be very selective in their financing decisions.

Although the supply of finance to agriculture is growing, key financing challenges remain ahead of the sector's ongoing structural transformation. **The study shows that there is an additional need for financial instruments, with an estimated financing gap of between EUR 1.3 billion and EUR 1.7 billion.** The financing gap mainly concerns large-sized farms (43% of the total gap) that require medium and long-term financing. In addition, **difficulties in satisfying increasing needs for working capital finance have been highlighted** in the analysis. Interviewees reported that financial institutions generally do not adequately finance the working capital of new risk management practices developed to cope with the increasing volatility of farm income. Similarly, there is a financing deficit for the working capital requirements of new investments in often large and innovative projects. This segment of the gap is likely to increase in the near future.

Overall, the main obstacles identified that constrain access to finance relate to:

- low and volatile economic margins that increase banks' risk perception;
- applicants' lack of business history or financial data on innovative investments or new production practices, which may increase a bank's reluctance to finance an investment; and
- lack of sufficient assets to be used as collateral and a lack of own capital may also be obstacles.

Banks also signal difficulties arising from the increasing size and complexity of agricultural investments. The ownership structure of larger enterprises is also evolving towards more complex financial structures and financing needs.

New entrants and young farmers are likely to account for a significant share of the financing gap. Interviews revealed that farmers who take over existing farms or establish their own farms face difficulties in fully financing their projects. For individual farmers, some of the challenges arise from a lack of personal equity that is needed to secure large long-term loans. For corporate farms with new structures (e.g. multiple shareholders, external investors, complex and diverse production with innovative investments), the challenges stem from new financial needs that banks are not always ready to satisfy.

RECOMMENDATIONS

- Several financial instruments, with EAFRD, EFSI and national/regional resources, have been put in place during this programming period at both the national and regional level. However, most of them have only been created very recently and so it is not possible to fully assess their impact on the financing gap at this stage. The analysis suggests that they may be unable to significantly reduce the rather substantial financing gap by the end of the current programming period. At a later stage, a review of these instruments should be conducted. This review should verify the adequacy of the available capital funding, the concrete ability of the instruments to address the constraints of the most affected enterprise segments, as well as their performance and efficiency. Based on such a review, the scope for establishing new initiatives, including under the CAP Strategic Plan 2021-2027, could be evaluated.
- To address the needs of young farmers, the opportunities offered by the new legal framework, such as the easier combination of financial instruments, grant support and interest rate subsidies, or the possibility to finance the purchase of land for young farmers, could be embedded in any future financial instrument under the CAP Strategic Plan 2021-2027.
- Considering the increasing number of more complex farm legal and ownership structures, the feasibility of a pilot equity or quasi-equity instrument might be analysed. Such an analysis could also focus on the need to support start-ups and, in particular, young farmers and new entrants with innovative ideas, as these two groups were found to be particularly constrained in their access to finance.

- Difficulties in addressing new and increasing needs for working capital, especially for medium and large sized agricultural enterprises, which also constitutes a significant part of the financing gap, could be addressed by providing stand-alone working capital finance through EAFRD-funded financial instruments, which will be possible under the new legal framework.

Financing gap for the agri-food sector in France

The investment dynamic in the French agri-food sector is positive. Investment in the French agri-food sector grew by 35% over the 2014-2017 period, reaching an estimated EUR 13-14 billion in 2018. Approximately EUR 10 billion is invested in tangible assets, between EUR 3-4 billion in (non-tangible) innovation assets and EUR 2 billion in related working capital requirements. Medium and large-sized industrial enterprises account for 77% of the investment in the sector.

The demand for finance in the French agri-food sector is driven by several investment drivers:

(i) **Capacity expansion**, with French farmers investing in machinery, equipment and buildings.

(ii) **Production efficiency and product innovation**, which is related to the ongoing digitalisation of most enterprise functions.

(iii) **Compliance with stringent standards**, especially with regards to enterprises' improved energy performance and waste management practices.

The supply of finance to the sector is provided by a large number of private banks and one public institution that supports industrial and economic development (Banque Publique d'Investissement - Bpifrance), as well as private sector funds and mutual guarantee associations (Unigrains, Sofiproteol, SIAGI, SOCAMA).

The supply of finance to the French agri-food sector is relatively unconstrained. This is shown by the growing outstanding loan volume to the sector (44% increase from 2013 to 2018), which reached EUR 38.2 billion in 2018. The difficulties highlighted by banks only relate to the financing of innovative projects involving non-tangible assets that cannot be used as collateral.

However, an estimated financing gap of EUR 2.9 billion exists in the sector. Approximately 88% of this gap concerns small-sized firms. In terms of financial products, 62% of the gap relates to long-term loans. Although medium-sized enterprises account for around 8% of the financing gap, they may also face important constraints based on the feedback of qualified stakeholders interviewed for this study.

Overall, the main obstacles identified that constrain access to finance relate to:

- high business risk related to low profitability;
- insufficient collateral or guarantees, especially for small and medium-sized enterprises, and
- a lack of credit history for start-ups.

Large-sized enterprises have access to the bond market and benefit from good risk scoring. This means they can finance their needs through a diverse range of funding sources and that they are less financially constrained.

Based on feedback from qualified interviewees, existing public support measures do not reach a significant share of small enterprises. This is due to the thresholds of investment volume required per project and the complexity of the administrative work required to support applications.

RECOMMENDATIONS

- Despite the diverse offer of public support, a significant financing gap has been identified within the sector in relation to start-ups and small and medium-sized enterprises. The available public support tools seem to lack a specific focus on the agri-food sector and investments in non-tangible assets for innovation. Therefore, an assessment of the current instruments, including on their ability to address the financial constraints of these target groups, investments in non-tangible assets and the agri-food sector more generally, could be helpful for taking corrective action and in making these instruments more efficient.

- The possibilities offered by the new EAFRD legal framework, including the easier combination of financial instruments and grant support, as well as the provision of stand-alone working capital finance, might offer the opportunity to design a dedicated financial instrument (in the form of a guarantee or risk-sharing loan fund) with an increased focus on the above mentioned segments. It will be beneficial if new initiatives related to financial instruments are in synergy with successfully running schemes at the national level, or if they continue their implementation. The presence of a single CAP Strategic Plan 2021-2027 may facilitate the set-up and outreach of any financial instrument supported by it.
- The possibility to set-up a pilot equity or quasi-equity financial instrument that supports start-ups with innovative projects might also be analysed.

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 France. 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 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.

Per 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 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 this study. The analysis is further elaborated by desk research and enriched with secondary data 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. 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 discusses 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 on the French agriculture sector
• France is the largest agricultural producer in the EU, accounting for 18% of EU 28 agricultural output. • The value of French agricultural production reached EUR 76.6 billion in 2018. • While the value of agricultural production increased by 14% since 2010, the volatility over these years shows the vulnerability of the sector. • Agricultural exports, with a value of EUR 63.5 billion in 2018, accounted for nearly 13% of total exports. • Out of 456 500 farms, nearly 43% are managed as medium-sized (20-100 ha) family farms.5 • Crop production accounted for 59.2% of agricultural output in 2018, while the livestock sector accounted for 34.5%.6 • Wine (17.4%) and cereals (14%) are the dominant sub-sectors within the crop production, while dairy (12.5%) and cattle (9.9%) are dominant within livestock. • Organic production increased by 100% over the last five years, driven by consumer demand and policy support.7 Cereals, wine and fruits/vegetables are now major focus areas of organic production. • Young farmers (under 40 years old) represent 15.6% of the farm population, which is the 3rd highest share in the EU 28. However, nearly 45% of farmers will reach retirement age within the next ten years.[8] • The legal form of farms is changing towards an increasing number of corporate farms (36% in 2018). This is driven by larger farms, more complex production systems, more sophisticated marketing practices and changing practices in equity management (e.g. new ownership models, specific holdings for land management). • Farm incomes are becoming increasingly volatile due to exogenous events (e.g. climate change) and market risks (e.g. market deregulation for milk production).

The French agriculture sector is a dominant force within the EU 28, accounting for 18% of EU 28 agricultural output in 2018. With 456 500 farms, the French agriculture sector also accounted for 3.9% of the total employment in the EU 28 in 2018. The value of French agricultural production reached EUR 76.6 billion in 2018. The major agricultural produce that places France among the top producers in the EU are cereals (21.7% of the EU 28), wine (46%), industrial crops (19.7%), cattle (23%), and dairy (16%). Nearly 60% of the agricultural output in France is generated through crop production, with wine representing 17.4% and cereals 14%. The livestock sector generates 34.5% of agricultural output,9 with dairy accounting for 12.5% of this sub-

5 Eurostat: Farm Structure Survey 2016, https://ec.europa.eu/eurostat/documents/2995521/9028470/5-28062018-AP-EN.pdf/8d97f49b-81c0-4f87-bdde-03fe8c3b8ec2.

6 European Commission, DG AGRI, June 2019, EU Agricultural Factsheet for France, https://ec.europa.eu/info/sites/info/files/food-farming-fisheries/farming/documents/agri-statistical-factsheet-fr_en.pdf.

7 Agencebio, https://www.agencebio.org/vos-outils/les-chiffres-cles/.

8 Eurostat: Farm Structure Survey 2016, https://ec.europa.eu/eurostat/documents/2995521/9028470/5-28062018-AP-EN.pdf/8d97f49b-81c0-4f87-bdde-03fe8c3b8ec2.

9 European Commission, DG AGRI, June 2019, EU Agricultural Factsheet for France, https://ec.europa.eu/info/sites/info/files/food-farming-fisheries/farming/documents/agri-statistical-factsheet-fr_en.pdf.

sector and cattle 9.9%.[10] With a value of EUR 63.5 billion in 2018, agriculture exports accounted for nearly 13% of France's total exports.

Farm structures provide French agriculture with a competitive edge. Nearly half of French farms (43%) are categorised as medium-sized family farms (20-100 ha).[11] According to the latest census, the average farm size was 63 ha in 2016, which is significantly higher than the EU 28 average of 16.6 ha.[12] There has been a process of structural change towards an expansion in farm size over the last two decades, with a loss of small-sized farms and a growth in the number of medium-sized farms (from 25% in 2000 to 43% in 2016) and large-sized farms. Consequently, investments in land and infrastructure have also been growing. During this period, larger farms have also become more flexible in their working conditions (e.g. in terms of length of work, vacations, etc.) compared to small-sized farms.[13]

Within the next ten years, demographic shifts are expected to continue to be a factor that defines French farm structure. Young farmers (under 40 years old) represent 15.6% of the farming population, which is the third highest share in the EU 28.[14] However, nearly 45% of the current farm population will be beyond retirement age by 2030. The inter-generational transfer within the next ten years will thus impact farm structures, business behaviour, product specialisation and financing solutions. Already today, the share of farms established as legal entities is changing, with an increasing number of corporate farms,[15] which signals a more structured business approach. In 2016, 64% of the farms were registered as a natural person, while 36% were registered under the name of a corporation.[16,17] For comparison, the EU 28 average of corporate farms is significantly lower, at only 3.5%.[18]

Organic production is growing quickly. It increased by 100% between 2015 and 2018, from EUR 5.9 billion to EUR 9.7 billion,[19] driven by consumer demand and policy support. Cereals, wine, and fruits and vegetables are now the major focus areas of organic production. An additional 5 000 farms became involved in organic production in 2018, reflecting the fast increase in organic farms. They represented 11 359 farms in 2003, 25 468 in 2013, and 41 623 in 2018. They account for about 10% of all French farms and 7.5% of the standard output (SO)[20].

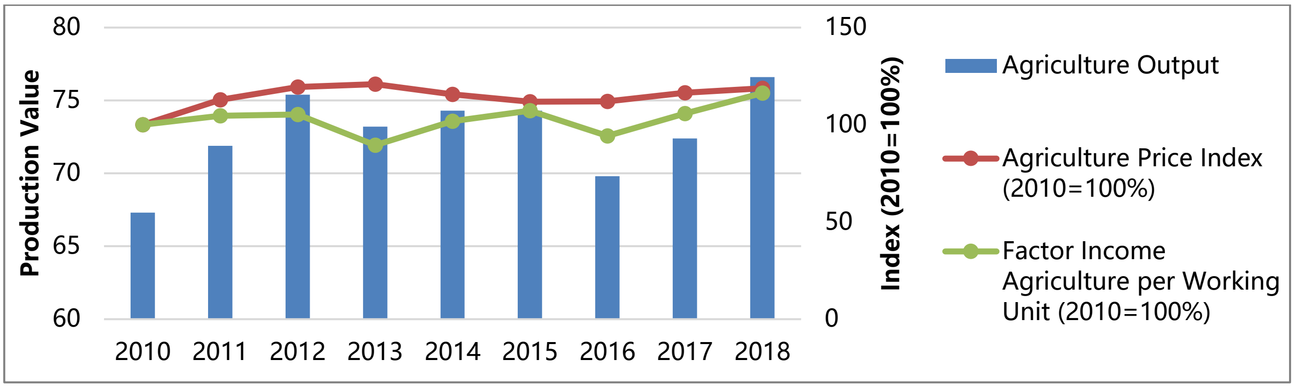
Since 2010, French agriculture has been performing positively, despite showing vulnerabilities to climate change and market interventions. The positive yet volatile development of the French agriculture sector can best be displayed by a set of key indicators (Figure 1):

- Overall, the crop dominated production value of French agriculture (EUR 76.6 billion in 2018) has increased by 14% since 2010. However, production value is showing volatility due to climate change.
- The extreme rain in spring of 2016 and the abolishment of the dairy quota in 2015 impacted agricultural factor income.

10 European Commission, DG AGRI, June 2019, EU Agricultural Factsheet for France, https://ec.europa.eu/info/sites/info/files/food-farming-fisheries/farming/documents/agri-statistical-factsheet-fr_en.pdf.
11 Eurostat: Farm Structure Survey 2016, https://ec.europa.eu/eurostat/documents/2995521/9028470/5-28062018-AP-EN.pdf/8d97f49b-81c0-4f87-bdde-03fe8c3b8ec2.
12 Agreste Primeur, 2018, Enquête sur la structure des exploitations agricoles, n° 350 (Figure 2, p. 2).
13 Interview with Farmers Associations.
14 Eurostat: Farm Structure Survey 2016, https://ec.europa.eu/eurostat/documents/2995521/9028470/5-28062018-AP-EN.pdf/8d97f49b-81c0-4f87-bdde-03fe8c3b8ec2.
15 Corporate farms are farm holdings where the legal entity is not the farmer himself. The holding can be owned and operated by one or multiple farmers.
16 Agreste Primeur, op. cited (Figure 3, p.3).
17 Roubin, 2019, 'Aujourd'hui apparaissent d'autres formes de financements', Revue Banque, no. 829.
18 https://ec.europa.eu/info/sites/info/files/food-farming-fisheries/farming/documents/farm-structures_en.pdf.
19 Agencebio, https://www.agencebio.org/vos-outils/les-chiffres-cles/.
20 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.

- Increasing cereal prices (7.4% in 2018) outpaced increasing energy prices (12.2% in 2018), resulting in the overall growth of the agriculture price index since 2010 (18%).

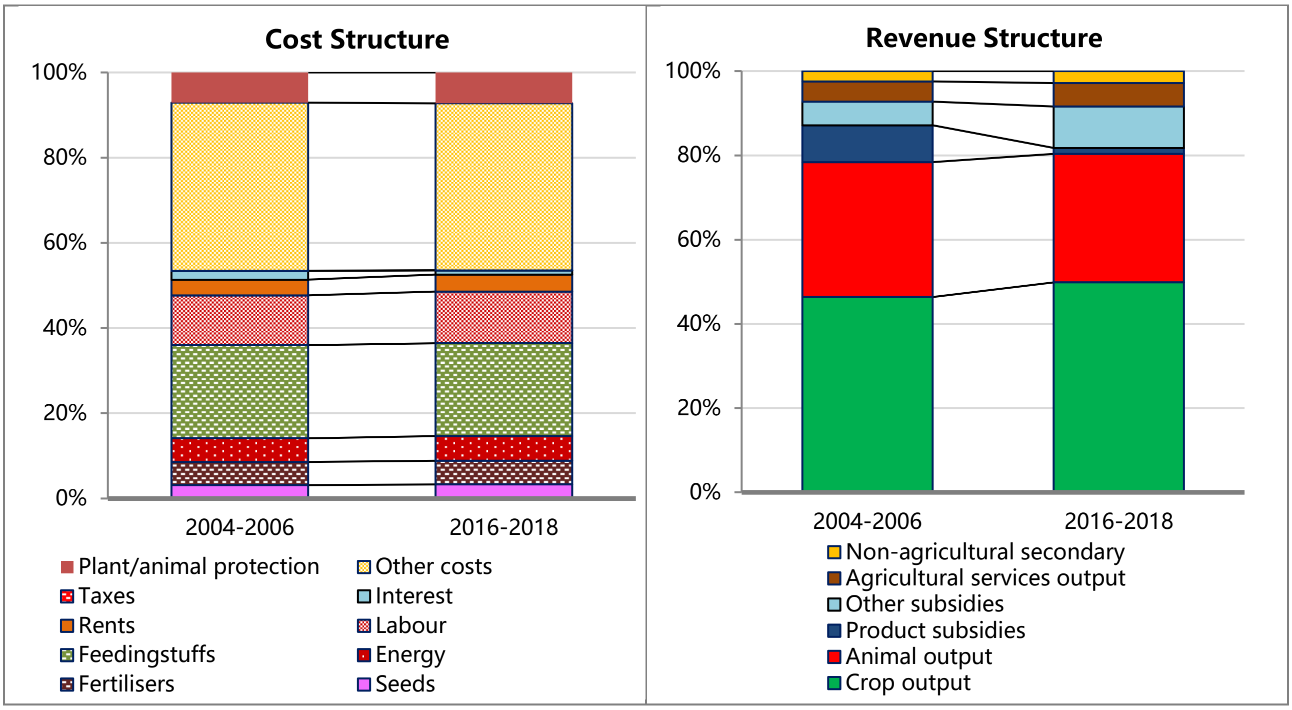
Figure 1: Development of French agricultural output producer prices and factor income in 2010-2018 (2010=100%), EUR billion



Source: Eurostat, 2019, Agricultural Economics Accounts.

As for the cost and revenue structure of the French agriculture sector (Figure 2), comparing the years 2004-2006 with 2016-2018, the costs for interest and seeds have decreased, while the costs for labour and energy have increased. On the revenue side, the share of revenues stemming from public support has decreased, while the share from crop output and agricultural services has increased.

Figure 2: Agriculture income – only cost and revenue structure in France, 2004-2018



Source: European Commission, Directorate-General AGRI, Statistical Factsheet for France, June 2019.

Statistical factsheet France, 2019
More data on agriculture indicators from France can be found in the **Statistical Factsheet France 2019** of the Directorate-General for Agriculture and Rural Development, Farm Economics Unit.

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

Key elements on finance demand from the French agriculture sector

- Investments in French agriculture declined over the 2012-2017 period before increasing again in 2018.
- The demand for finance is driven by a growing number of medium and large-sized farms, and their objective to expand capacity, invest in the modernisation of machinery and input technologies, as well as climate change adaptation measures and risk management practices.
- The demand for finance is heavily driven by capital-intensive sub-sectors such as dairy, pig and poultry production.
- Machinery, land, and buildings are the main investment categories for farms.
- New technologies are being introduced to improve productive efficiency and respond to societal demand (e.g. quality, sustainability, ethics) and investments are being made to support diversification in non-agricultural activities (e.g. renewable energy, agri-tourism).
- Working capital requirements are also increasing, driven by sales growth, new practices to cope with output and input market volatility, changing consumer tastes and requirements for higher quality products, and production risk management.
- Almost half of all French farmers (48.5%) applied for finance according to the fi-compass survey, with investment loans with medium and long-term maturities the most commonly selected.
- The total unmet credit demand for the French agriculture sector is estimated at EUR 6.2 billion.
- The rejection rate for farmers' bank loan applications ranges from 1% to 3%, depending on the finance product, and is lower than the EU 24 average.
- About 6% to 8% of farmers did not apply for a loan due to a fear of possible rejection.
- The main reason for rejection is based on banking policy, with investment risk assessed as too high.
- For innovative projects, a lack of collateral and business history also leads to unmet finance demand.

2.2.1 Drivers of total demand for finance

French agriculture shows a positive attitude towards investments. As a measure of investment intensity, the Gross Fixed Capital Formation (GFCF)[21] in the agriculture sector has increased by 5% since 2010, reaching EUR 10.5 billion in 2018 (Table 1). This was despite showing some fluctuations over the period. When expressed as a share of Gross Value Added (GVA), the GFCF ratio in French agriculture of 33.7%

21 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. An increase in 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 investment in fixed assets will typically be reduced, since it ties up additional capital for a longer period of time, with a risk that it will not pay itself off.

matches the EU 28 average (32%).[22] In 2018, the largest share of investments was allocated to non-agricultural assets (EUR 9.2 billion), in particular to machines and other technical equipment (EUR 6.6 billion). The investments in agricultural assets (e.g. purchase of livestock or perennials) amounted to EUR 1.2 billion in 2018.[23] These figures are supported by the findings from interviews with banks, where a total investment volume of up to EUR 12-13 billion per year was estimated.[24]

Table 1: Gross fixed capital formation in French agriculture sector in 2010-2018, EUR million

	2010	2011	2012	2013	2014	2015	2016	2017	2018
Agricultural Products	843	819	1 027	1 210	1 311	1 361	1 199	1 200	1 232
Animals	335	201	343	650	598	611	538	493	521
Perennials	509	618	684	561	713	750	662	708	711
Non-Agricultural Products	9 126	10 409	11 223	10 728	9 691	9 270	8 811	8 591	9 218
Machinery and equipment	6 389	7 492	8 225	7 952	6 461	6 465	6 137	6 028	6 571
Buildings	2 218	2 375	2 457	2 225	2 688	2 250	2 145	1 966	2 030
Other	520	541	541	552	542	555	528	596	617
Total GFCF	9 969	11 228	12 250	11 939	11 002	10 631	10 010	9 791	10 449
GFCF (in % of GVA)	35.8	38.6	40.8	45.3	40.0	35.9	38.1	29.7	33.7

Source: Eurostat, Economics Accounts for Agriculture, 2019.

The level of indebtedness of the French agriculture sector is heterogeneous and depends on the economic size of the farms and the sub-sector (Table 2). The average farm balance sheet in the horticulture, milk, pig and poultry sub-sectors have the highest loan-to-value ratios. The debt level in the arable crop sub-sector is close to average, and the wine and beef sub-sectors have the lowest ratio. The loan-to-value ratio increases with the farm size regardless of the sub-sector (with an exception for the poultry sub-sector, where small-sized farms present a high ratio). The more capital-intensive sub-sectors are milk, beef, poultry and pigs, whilst the less capital-intensive sub-sectors are wine and arable crops.

22 European Commission, 2017, Gross Fixed Capital Formation in Agriculture.

23 Eurostat, 2019, Agricultural Economic Accounts.

24 Crédit Mutuel, 2018, Le nouveau paysage du financement bancaire de l'agriculture. Les nouvelles formes de financement des installations et des investissements innovants agricoles. Présentation à l'Académie d'Agriculture de France. Available at: https://www.academie-agriculture.fr/system/files_force/seances-colloques/20180516 presentation2.pdf?download=1.

Table 2: Loan-to-value ratios by standard output and agriculture sub-sectors in France, 2018

	Number of medium and large-sized farms (> 20 ha)	Standard output from EUR 25 000 to 100 000	Standard output from EUR 100 000 to 250 000	Standard output > EUR 250 000	Medium and large-sized farms (% of total farm population)
All sectors	290 514	30%	44%	51%	43%
Arable crops	52 363	31%	48%	49%	42%
Horticulture	4 911	59%	62%	59%	60%
Wine	43 928	19%	30%	38%	32%
Beef	28 827	28%	38%	-	31%
Milk	45 226	30%	47%	58%	47%
Pigs	5 462	-	56%	69%	67%
Poultry	10 178	77%	62%	68%	67%

Note: Table only includes farms >20 ha; classification in economic size, while study uses physical size.
Source: Agreste-FADN 2018.

The demand for agricultural finance in France is underpinned by the following investment drivers:

(i) **Farm expansion:** Farms invest in land with the objectives of increasing economies of scale and profits, and of securing CAP direct payments. This is complemented by investments in extending existing infrastructure.[25] Farms are also diversifying their incomes into non-agricultural activities (e.g. renewable energy production, eco-tourism, etc.).

(ii) **Modernisation**: Farms invest in more efficient machinery and input technologies and more energy-efficient buildings. This dynamic includes changes in production processes to meet consumer demand and regulatory requirements[26] (e.g. norms for organic and local production, animal welfare standards[27]). Investments in digital transformation[28] generate higher returns through smart machinery, drone and sensor technologies, as well as decision support data analytics. In addition to modernisation, innovations also take place in niche sub-sectors such as urban farming, niche products, indoor farming, or short food supply chains.

(iii) **Working capital**: The need for working capital is increasing in all sub-sectors. This shift in financial needs is driven by sales growth, production and commercialisation risk management (e.g. in order to cope with output and input market volatility) and transition periods, such as when shifting from conventional to organic production.

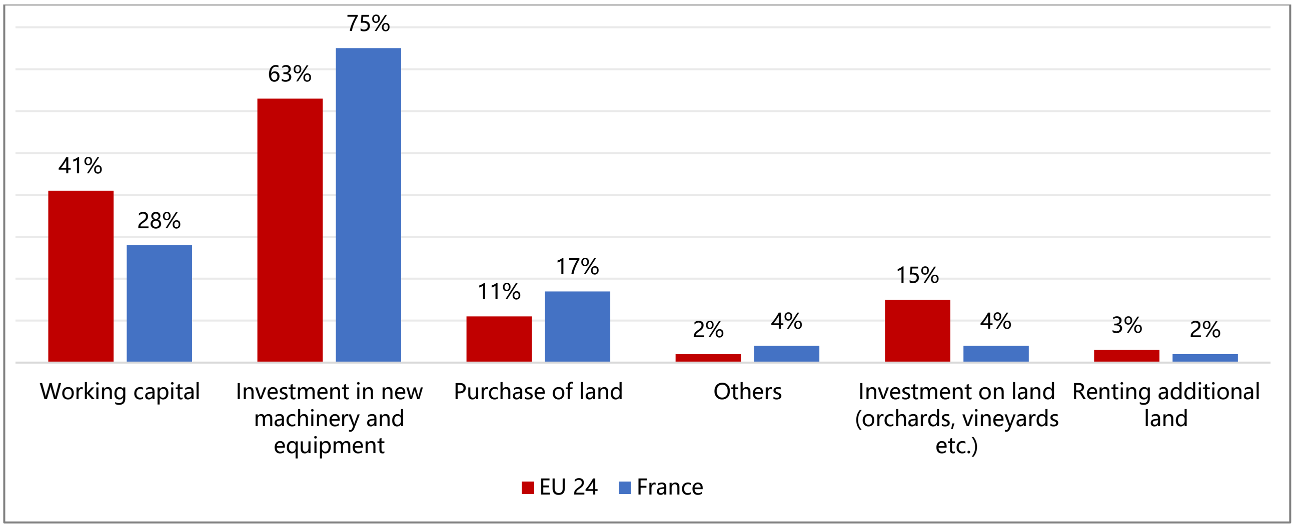
(iv) **Generational renewal of farm managers**: Generational renewal occurs through individual young farmers or corporate farm structures taking over existing farms, or through an inflow of new entrants.

25 Interview with the Chambre d'Agriculture.
26 https://agriculture.gouv.fr/circuits-courts-exigences-sanitaires-et-flexibilite-pour-les-petites-entreprises.
https://agriculture.gouv.fr/bien-etre-animal-la-reglementation-qui-encadre-lelevage-et-les-controles-officiels.
https://agriculture.gouv.fr/le-bien-etre-et-la-protection-des-porcs.
https://agriculture.gouv.fr/le-bien-etre-et-la-protection-des-poules-pondeuses.
Mabire C., 2017, unpublished Ph.D. thesis, 'Résistance du monde agricole: aspects psychosociaux du bien-être et du mal-être', Université de Lorraine, ffNNT, 2017LORR0365ff.fftel-01848724f . Available at : https://tel.archives-ouvertes.fr/tel-01848724.
27 For instance: the Label Rouge standard requires larger spaces per pig and minimum levels of some feed ingredients.
28 https://agriculture.gouv.fr/alimagri-la-revolution-numerique.

(v) **Climate change adaptation**: Significant investments are linked to strategies to mitigate the negative impact of climate change on crop production and to increase resilience to increasing climatic adverse events, such as droughts, floods and extreme heat. These strategies include new agriculture practices (e.g. winter coverage of agricultural land, no-tillage, hedge plantation), production diversification (e.g. short supply chains and direct sales),[29] and climate change resilient production techniques (e.g. irrigation and water reservoirs or production techniques based on plant phenology).

Capacity expansion and modernisation were the main purposes behind bank loan applications by French farmers in 2017 (Figure 3). The results from the *fi-compass* survey show that bank loans are mainly used by French farmers to finance investments in machinery, equipment and buildings (75%, compared to 63% for the EU 24 average), working capital (28%, compared to 41% for the EU 24) and the purchase of land (17%, compared to 11% for the EU 24).

Figure 3: Purpose of bank loans in the agriculture sector in 2017



Source: fi-compass survey.

Investments in machinery and equipment account for the largest share of farmers' fixed assets. The overall balance sheet of an average farm in France in 2018, across all types of production, is provided by FADN (Table 3). Fixed assets account for 58% of total assets and current assets for 42%. The largest share of investment in fixed assets is devoted to machinery and equipment (27% of fixed assets), followed by buildings (26%), livestock for reproduction (18%) and land (16%). This relatively low share of investment in land is mainly linked to the high level of rented land (80%[30]) and new ownership practices through, for example, dedicated family and associate holdings or external private and/or public[31] investors.

29 For example, the innovative distribution of farm products in automatic boxes that are presented to clients with an adapted payment system is a recent development in France.

30 SSP, 2016, Agreste, enquête structure.

31 The main public investor is SAFER (Société d'Aménagement Foncier et d'Etablissement Rural).

Table 3: Balance sheet of the average French farm in 2018, 2019, EUR

Assets		Equity and liabilities	
Fixed assets 58%	**266 600**	**Owners' equity 58%**	**266 900**
Land	43 800	Capital	188 600
Buildings	70 400	Reserves	68 800
Machinery	72 600	Investment grants	9 500
Trees (incl. forest)	9 800	**Liabilities 42%**	**192 400**
Livestock for reproduction.	47 000	Long-term liabilities.	122 700
Others	22 900	Current liabilities	6 500
Current assets 42%	**191 100**	Other short-term liabilities.	11 400
Inventory	105 800	Accounts payable	51 800
Debtors	45 500		
Bank and cash	39 800		
Total	**459 500**	**Total**	**459 500**

Source: FADN, 2019.

According to FADN data, owners' equity accounts for 58% of the average farm balance sheet, while liabilities account for 42% (or loan-to-value ratio) (Table 3). Medium and long-term loans represent 64% of the total liabilities, while short-term loans represent 6%. Accounts payable (i.e. credit from farm suppliers for inputs such as seeds, fertilisers, pesticides or feedstuffs) are quite high, accounting for 27% of total liabilities. This indicates that working capital requirements are mostly financed by upstream actors in the food value chain.

Working capital is a central financial need, especially for newly set up farms. Banks provide part of the working capital needs of these farms, mainly through short-term loans and credit lines, but also through medium and long-term loans, although to a lesser extent

Farmers' organisations reported an increased need for working capital across all sub-sectors. If unmet, this need constrains farm development, especially for young farmers and new entrants. The main drivers of the increasing need for working capital and the associated demand for finance are the following:

- **Farm expansion**, with the growth in farm sizes increasing the level of operating costs per farm, resulting in higher working capital needs.
- **Increasing farm income volatility and related risk management strategies**. These strategies may include cost diversification measures using Over-The-Counter (OTC)[32] contracts for purchasing farm inputs and revenue diversification using a portfolio of contracts, including delayed selling of crops (Box on arable crops).
- **New regulation** affecting suppliers' ability to pre-finance inputs. A recent national regulation (Egalim[33]) unbundled the advisory services from the sales of phytosanitary products, in order to prevent a conflict of

32 Over-The-Counter (OTC) refers to the process of unregulated contracts for physical assets.

33 Loi no 2018-938/ October 2018 pour l'équilibre des relations commerciales dans le secteur agricole et alimentaire et une alimentation saine, durable etaccessible à tous. https://www.legifrance.gouv.fr/affichTexte.do?cidTexte=JORFTEXT000037547946&categorieLien=id.

interest. This change in the supplier/farmer relationship limits the financial resources of input suppliers and therefore may affect the previous practice of short-term credit to farmers.

- **New production practices, and related transition periods,** to address environmental sustainability and ethical consumer demand (Box on pig production). This also applies to farm income diversification when increasing production or when converting from conventional to organic production.
- **Working capital needs linked to investment operations.** Farm representatives confirmed during interviews that investments in physical assets generally require 20-30% of working capital.[34] The current demand for investment-related working capital finance in France can be estimated at EUR 2.5-3.7 billion.[35] Therefore, if EUR 1 billion of additional investment (following the Grand Plan d'Investissement 2018-2022) is planned per year, as part of the *Plan de Filières* of the agricultural sub-sectors,[36] an additional EUR 0.2-0.3 billion of working capital will be required.

According to stakeholders, **access to bank finance for working capital can be constrained as banks are not always equipped to evaluate new working capital needs** and they tend to apply more traditional assessment criteria (e.g. maximum amount of EUR/ha depending on the sub-sector). The unmet demand for working capital finance, as expressed during interviews by farmers' representatives, is expected to increase significantly in the coming years in France. The two examples presented in the boxes below (next page) illustrate working capital needs in two of the main sub-sectors.

Working capital needs in the arable crop sub-sector in France

Higher levels of working capital are needed to cope with growing farm income volatility. Income volatility for farms in the main crop sub-sectors have increased substantially in recent years. This is due to recent increases in the yield and price volatility of the most important crops (cereals, oilseeds, sugar beet, linseed, wine, etc). For example, climatic events in 2016 caused significant wheat yield losses. The volatility of farm income associated with the production of the main crop sub-sectors are documented in a recent Directorate-General AGRI study.[37]

To deal with increasing income volatility, farmers are developing or strengthening risk management practices. These practices include diversification of input purchasing contracts, such as those available on the cash forward market (from structured forward contracts to option contracts). This is a new portfolio approach to deal with input market risks that require short-term finance. Similarly, major changes have been observed in selling practices, with innovation in the type of contracts offered by grain cooperatives and private trading companies (index-based contracts, structured contracts with profit-sharing options, etc).[38] However, these contracts require the payment of a premium for option-type contracts and safety deposits for contract integrity. The farmers interviewed indicated that banks are not yet fully integrating this additional

34 Interviews with farm representation stated the share of working capital and FOSTER and ALTERNA confirm the working capital needs of up to 30% of investment expenses.

35 The annual investment in agriculture in 2018 is estimated at EUR 12.3 billion (section 2.3.2).

36 In relation to the governmental project for the future of agriculture, each sub-sector has been asked to define investment needs for creating additional added value. Le Grand Plan d'Investissement is providing EUR 5 billion to agriculture for the five-year /2018-2022/ period. See https://agriculture.gouv.fr/egalim-les-plans-de-filieres and https://agriculture.gouv.fr/gpi. Le Grand Plan d'Investissement is providing EUR 5 billion to agriculture for the five-year 2018-2022 period.

37 European Commission, DG Agri, 2017, 'Study on risk management in EU agriculture'. https://op.europa.eu/en/publication-detail/-/publication/5a935010-af78-11e8-99ee-01aa75ed71a1.

38 Bégué-Turon et al., 2017, 'Utilisation des marchés à terme par les acteurs commerciaux exposés à la volatilité des marchés des grains et du sucre', étude Sigma Terme pour le Ministère de l'Agriculture, Paris, 143 p. Available at: https://hal.archives-ouvertes.fr/hal-02068381/document, https://agriculture.gouv.fr/utilisation-des-marches-terme-par-les-acteurs-commerciaux-exposes-la-volatilite-des-marches-de.

financial requirement in their lending assessment process and in the solutions they offer. In addition, cooperatives that supply inputs and sell grains may find it difficult to maintain their credit lines to farmers due to legal changes in France which required suppliers to unbundle the advisory services from the sales of phytosanitary products.[39]

Another change concerns the financing of insurance costs. The premium of agricultural insurances for covering yield losses are now financed by farmers, as subsidies[40] are no longer given to insurers but directly to farmers instead. Farmers are therefore paying the full commercial premium before receiving the related subsidy months later, which requires additional working capital availability on the farm's balance sheet.

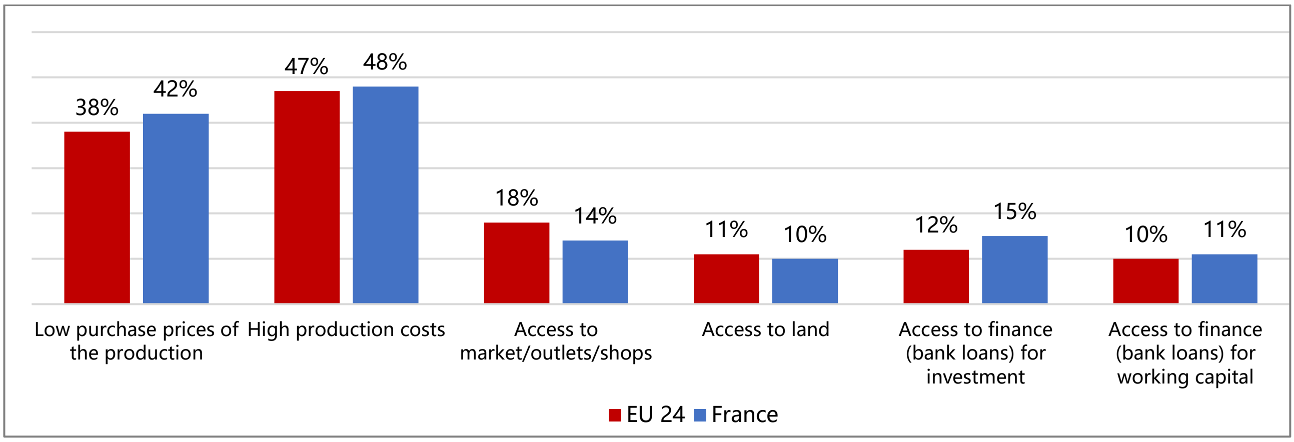
Working capital needs in the pig sub-sector in France

Switching to differentiated pig production might require more working capital than is available to producers. Departing from conventional pig production, differentiated production seeks to address consumers' demand for higher quality. Feed quality is a key factor used for differentiation, along with animal welfare and treatment (e.g. requirements from the Label Rouge standard for more space per pig and minimum required feed ingredients, or shifting to organic production).

New buildings and equipment are required for the production of sows, piglets, pigs and on-farm feed. As a consequence, the farmers interviewed estimate that the working capital per sow for differentiated production could be as much as twice the requirement for conventional production (e.g. energy, feed, labour). In addition, the transitional period, before certification, requires specific funding as the production cannot be sold as certified yet. Therefore, costs are incurred without the benefits, creating a financing gap. The hypothesis of a 40% switch to differentiated production (without any change in the total volume of production) would require significantly more working capital. While current producers with good financial results may adapt, this will be more difficult for new entrants and young farmers.

A guarantee fund for loans to specifically cover the required working capital of large and innovative projects related to ecological transition would be welcomed by the interviewees in the pig sector, and potentially across all sub-sectors.

Figure 4: Difficulties experienced by farmers in 2017



Source: fi-compass survey.

39 Ordonnance 24/04/19 to the French Law EGALIM 30/10/18.
40 Subsidies related to Art. 37 of Reg. (EU) no. 1308/2013.

The *fi-compass* survey suggests that French farmers seek finance for the purchase of land more often than their EU 24 peers (Figure 3). About 17% of French farmers responded that they use bank loans to buy land, but access to land is a challenge for 10% of them (Figure 4).

The acquisition of farm assets requires financing solutions for both new entrants (including young farmers) and existing farmers. New entrants face specific financing challenges and therefore specific solutions are needed. New entrants lack capital and their income level is generally low in their first years of activity. Two main types of practices in farm takeovers have been identified, leading to different private financing strategies and needs:

- **Individual farm takeover:** In this case, a new farmer purchases an existing non-corporate farm from a natural legal person. The seller of the farm provides the new entrant a loan equivalent to the value of the farm assets. The repayment modalities can vary, depending on the asset value. If the seller has been a member of a cooperative and the new entrant is accepted by the cooperative, favourable conditions exist regarding the availability of working capital, through credit lines and loan guarantees from the cooperative. This private financing model can also facilitate applications for additional loans from banks. This type of farm structure could be considered as the traditional model and is structured around the concept of family farm.
- **Corporate farm takeover:** In this case, a new farmer builds up ownership of a corporate farm. This approach allows for the gradual progression of the new entrants' farm management responsibilities and offers flexibility in building a personal equity share within total farm equity. This type of structure is better suited to the working style of the younger generation, which prefers flexibility in their farming activity.[41] Large personal investments in the long run may be considered a constraint. Therefore, corporate farms (large and diversified in capital and production) require more innovative instruments for managing personal equity, investment loans, and working capital.
- **In 2017, the main challenges for French farmers were the high costs of production and the low purchase price of their production.** In the *fi-compass* survey, 48% of respondents reported that one of their main challenges is cost of production, while 42% flagged the purchase prices of their production. These were considered as the main challenges, followed by access to finance for investment (15%) and working capital (11%), which is in line with the overall situation in the EU 24 (Figure 4). Interviews with farmers confirmed the above challenges, as producers face low profits due to low market prices and rising production costs. Income volatility and general reduction of income, year-after-year, brings complexity to the farmers' financing demand for investment and working capital.

The Common Agricultural Policy (CAP) is a vehicle for investment support. Within the CAP, direct payments (Pillar I) and the rural development grants (Pillar II), play an important role in developing the sustainability of the sector, which also stimulates farmers' demand for finance.

French farmers benefit from the financial and investment support from the CAP to develop their activities. For the 2014-2020 programming period, France had a direct payment envelope slightly above EUR 50 billion that represented about three quarters of the total CAP spending. With EUR 16.7 billion (including national and regional co-financing), nearly 17.6% of the total financial allocations were earmarked for the Rural Development Programmes (RDP). Like other larger member states, such as Germany, Italy and Spain, France has programmed 22 regional RDPs for mainland France, five for their overseas regions, and two national programmes for risk management and rural networking.

Investment support for farms and agri-food enterprises and the setting-up of young farmers are among the top investment priorities for the agricultural policy in France. While EAFRD is one of the important tools used, it is not the only one.

41 Interviews with banks and farmer organisations.

42 https://agriculture.gouv.fr/aide-linstallation-de-jeunes-agriculteurs.

While the RDPs include numerous measures, two of them are further analysed below due to their specific impact on investments and the demand for finance by farmers: sub-measure 4.1 (M4.1) on support for investments of agricultural holdings and sub-measure 6.1 (M6.1) on the setting-up of young farmers.

Investment support is a priority under the RDPs.

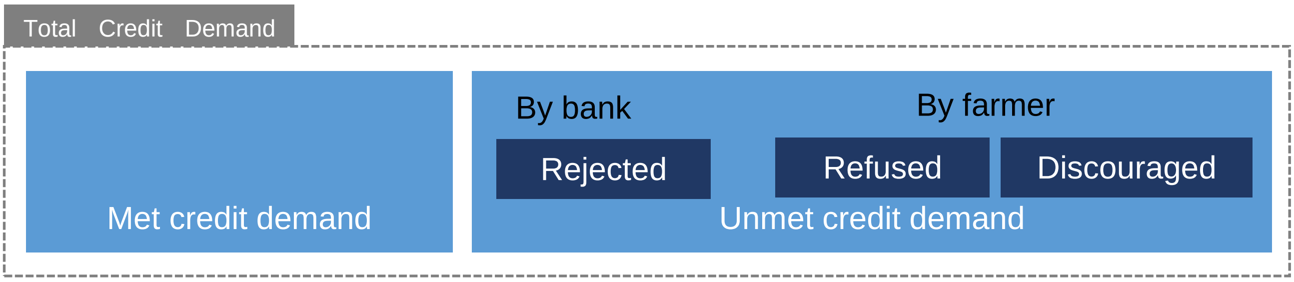
Preliminary EAFRD/RDP data provided by the Ministry of Agriculture and covering eight French regions show that for the 2014-2019 period, a total of 184 regional calls for applications were launched for sub-measure 4.1 totalling EUR 1.19 billion of public financing. In total, about 25 400 applications were approved, a number slightly below the total submitted applications, which shows that farmers have a very good knowledge on how to prepare business plans and provide the necessary information required for obtaining public support. The budget of the sub-measure is by now balanced and well programmed, corresponding to the overall demand for finance.

A similar, rather balanced programming and execution could be noticed for sub-measure 6.1 where, after 12 grant calls, a total of EUR 567 million had been made available by the regional managing authorities and about 12 600 applications had been received for support. Demand was almost as high as the available budget, again signalling good programming capacities.

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 5).

Figure 5: Schematic overview of the demand side of agriculture



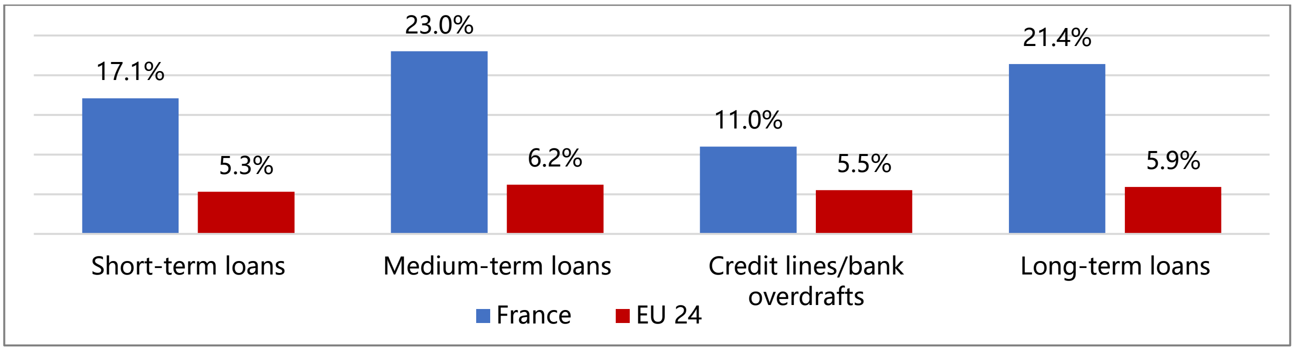
Source: Ecorys, 2019.

Based on the results of the *fi-compass* survey, the unmet demand for finance in the agriculture sector in France is estimated at EUR 6.2 billion.

The main source of finance for French farmers is bank lending. According to the *fi-compass* survey, 45% of French farms applied for bank finance in 2017, which was three times higher than the EU 24 average of 13%. Private finance, such as from family or friends, is almost non-existent, with only 0.5% of respondents seeking this type of support.

When applying for finance, French farmers mainly seek investment loans. Almost a quarter of farmers (23%) applied for a medium-term loan in 2017, compared to 6% for the EU 24 (Figure 6). Application rates for long-term loans (21%) and short-term loans (17%) are also both significantly above the EU 24 average (5.9% and 5.3%, respectively). Credit lines, bank overdrafts, and credit card overdrafts are sought by only 11% of French farmers. Overall, the sector shows a more dynamic financing demand than the EU 24 average.

Figure 6: French farms applying for finance in 2017, by financing product



Source: fi-compass survey.

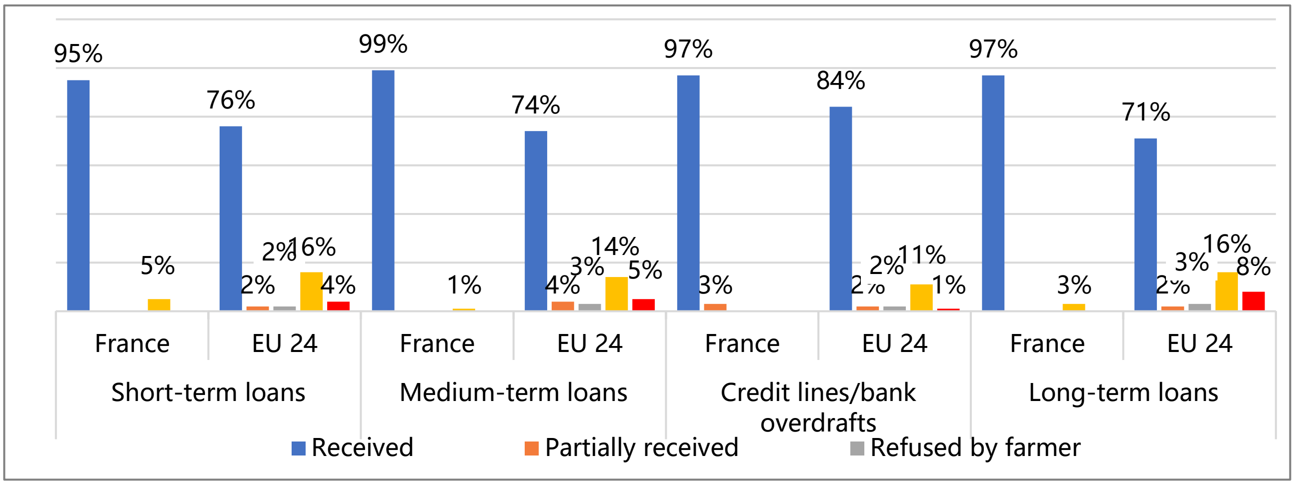
The demand for bank credit is concentrated and mostly comes from large-sized farms with large investment projects. In 2017, around 15% of farms held large loan values on their balance sheets (above EUR 120 000) and these accounted for 65% of the total loan volume.[42] In comparison, 48% of farms held small loan values (below EUR 18 000) and these accounted for only 17% of the total loan volume (Table 4). A quarter (25%) of farms had no loans on their balance sheets.

Table 4: Distribution of loan in French agriculture sector by loan size in 2017

Average loan size (EUR)	0	5 000	18 000	38 000	120 000	All sizes
Number of farms	112 500	130 500	85 500	58 500	67 500	454 500
Total loan value (EUR million)	0	652.5	1 539	2 223	8 100	12 514.5
% farm	25%	29%	19%	13%	15%	100%
% of loan value	0%	5%	12%	18%	65%	100%

Source: Agreste-FADN, 2018.

Figure 7: Results from applications for finance in the agriculture sector in 2017



Source: fi-compass survey.

42 Agreste – FADN, 2018.

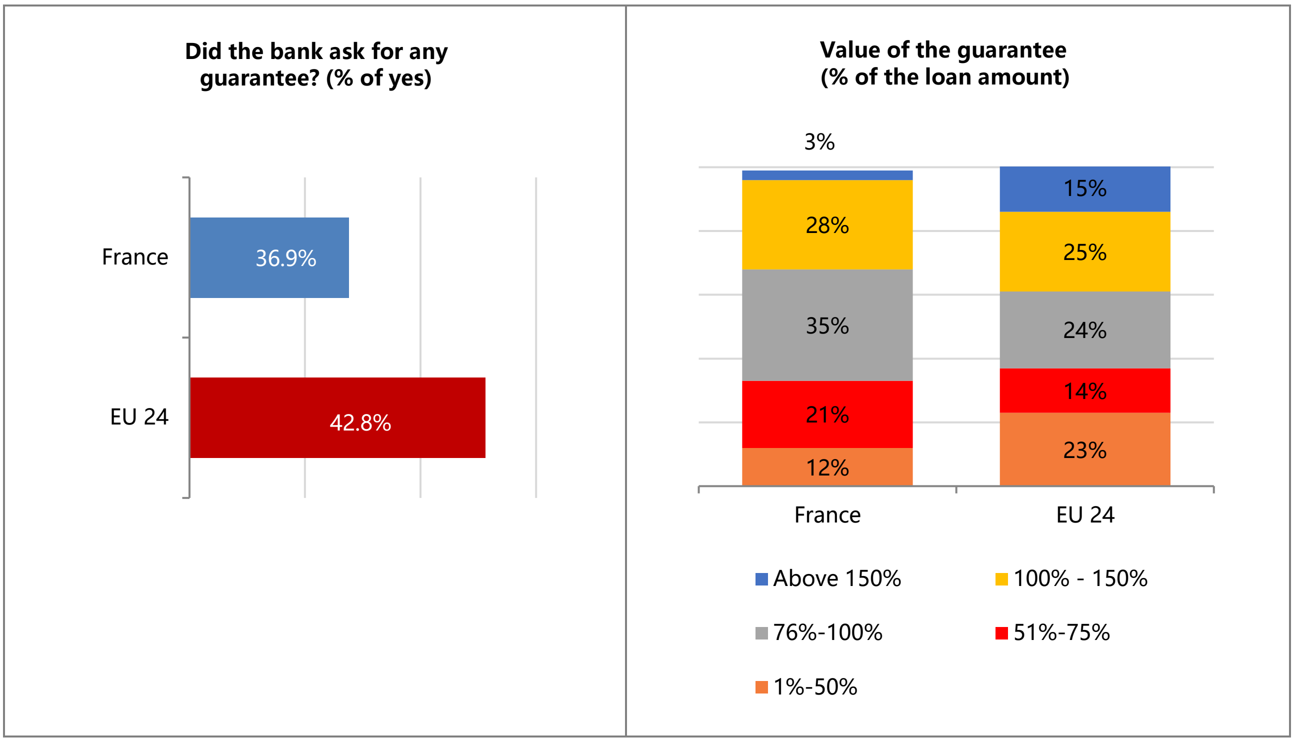
Loan application rejection rates in France are below the EU 24 average. According to the *fi-compass* survey, the rejection rates for short-term loans is 5%, while the rate for medium and long-term loans ranges from 1% to 3% (Figure 7). These results are in line with findings from interviews with financial institutions, which highlighted a low rate of rejection for investment loans (2%). Higher rejection rates for short-term products are also consistent with the difficulties in accessing finance for working capital that were signalled in interviews (see section 2.2.1). Rejection rates in the sector depend on three main factors: the availability and adequacy of collateral, access to technical assistance, and the specific lending policies and risk perception of lenders.

- **Collateral requirements have a significant impact on French farmers' access to finance.** More than a third of French farmers (37%) were asked by the banks to provide collateral. The *fi-compass* survey indicates that almost one-third (28%) of all farmers with loans had to provide collateral for an amount between 100-150% of the loan value, and another third (35%) between 75-100% (Figure 8). However, very few borrowers (3%) were requested to provide collateral higher than 150% of the loan value, and this share much less than for the EU 24 average. According to the banks, the provision of collateral is a significant challenge**.** The availability of farm assets and family collateral is decreasing, and their use to secure loans has become less frequent. Therefore, adequate private personal collateral (for example, life insurance), credit guarantees and financial support from input suppliers (often the cooperative or occasionally the processor) are required. Although the traditionally used fixed assets or collateral provided from family is still used, the importance of this source is decreasing. The high value of farms, especially larger ones, requires capital to be divided when transmitted from parents. In some sub-sectors (e.g. pigs), the 'out-of-family' farm set-up is now dominant. External investors are starting to play a larger role in the capital structure of French farms, especially through their involvement in developmental or transmission projects (e.g. Labeliance).[43]
- **The low rejection rates in France, compared to other Member States, can be partially explained by the high share of farms relying on technical assistance to run their businesses**. The majority of French farmers (78%) benefit from expert accountants. This is a very high share compared to the EU 24 average of 57%. Several national accounting networks (e.g. Cerfrance) and many independent local firms provide accounting services and support all types of financial analyses. Most investment projects and related financial requirements (e.g. equity, loans) are first discussed with financial advisors[44] who then also help farmers to make preliminary contact with banks. This improves the likelihood that applications for loans will be accepted.
- **Banking policy and high investment risks are the only reasons for unsuccessful loan applications, according to the *fi-compass* survey.** About 82% of rejected loan applications were rejected due to the policy implemented by the financial institution (compared to 27% in EU 24), while 18% were rejected due to investment risk that was considered too high (compared to 44% in EU 24). Further discussion on bank's risk perception of the sector can be found in section 3.3.2.

43 Source: http://www.labelianceinvest.fr/wordpress/ and https://bfmbusiness.bfmtv.com/bourse/communique-presse-labeliance-invest-lancement-labeliance-agri-2013-520556.html.

44 Interviews with farmer organisations.

Figure 8: Information related to collateral requested by French agricultural producers, 2017



Source: fi-compass survey.

Farmers are often discouraged from applying for loans after consulting accountants. When farmers seek advice from an accountant or a financial advisor, they are often discouraged from officially applying to a bank. According to the *fi*-compass survey, about 6-8% of farmers did not apply for a loan because of a fear of possible rejection. The lowest discouragement was related to short-term loan applications and the highest fear of rejection was associated with long-term loan applications. These values are in the EU 24 average range of 9-10% (Figure 9). Various studies performed in France[45] (e.g. regional ex-ante assessments for financial instruments), covering diverse geographical areas, have highlight a number of reasons why farmers' are reluctant to seek loans.

They can be summarised as follows:

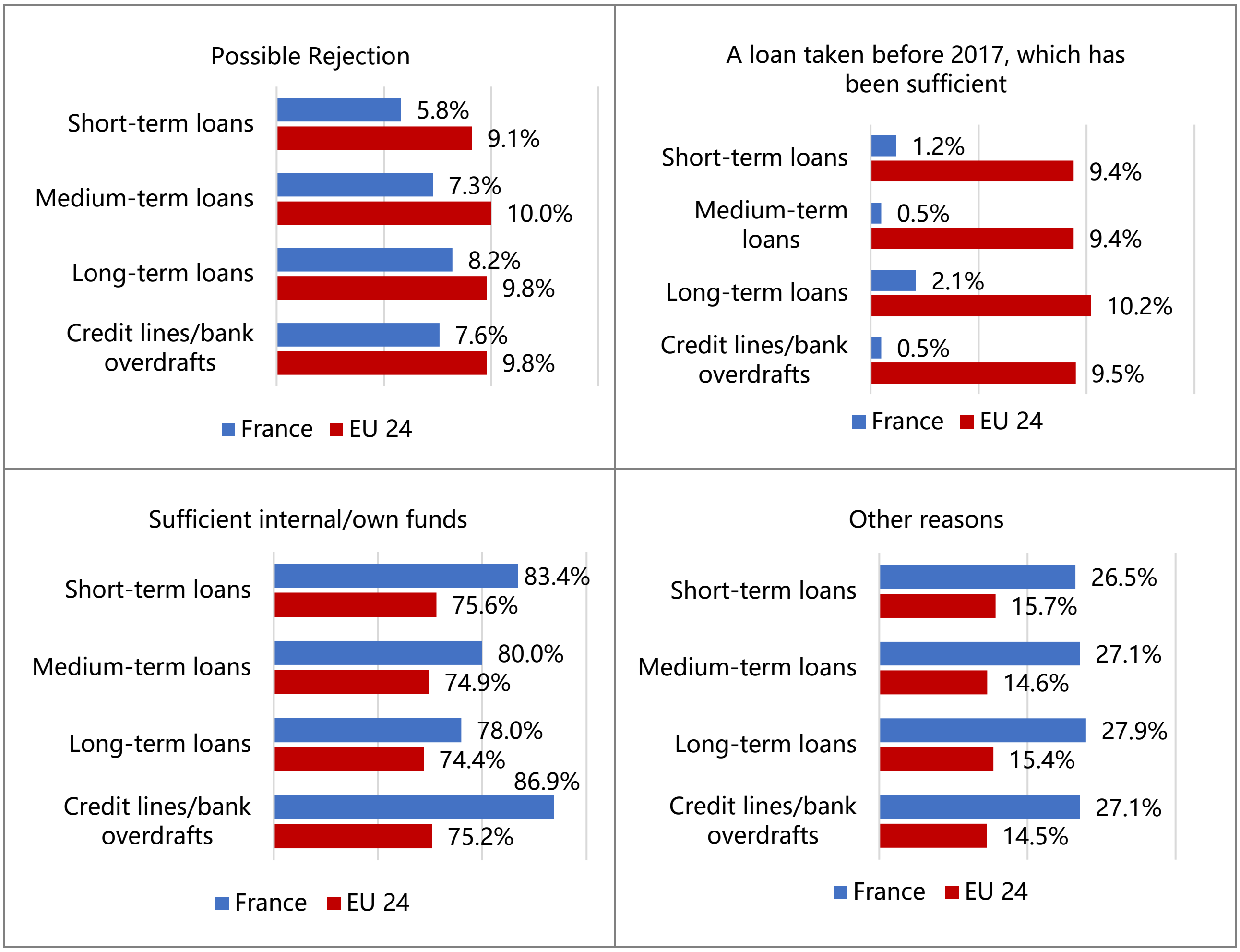
- **The low expected return on farm investments**: This driver of discouraged loan applications stems from declining profits and/or high economic risk due to market uncertainty, input and output price volatility, climate unpredictability and sanitary risks. Non-productive investments driven by legal requirements and compliance with rules, such as on animal welfare or sanitary aspects in livestock production, are also considered by farm organisations as contributing to the expected low returns on investments.
- **High indebtedness and limited collateral available to farmers:** Access to bank financing may also be constrained by excessive existing debt ratios and the limited availability of collateral and/or external guarantees. These difficulties specifically affect young farmers and new entrants. This is because they often

45 PwC EU Services, 2017, 'Evaluer l'opportunité de recourir à des instruments financiers sur le territoire de l'ex Midi-Pyrénées', Rapport final, Janvier, 339 p, *fi-compass*, 2018, 'Etude de faisabilité pour la mise en place d'instruments financiers dans le cadre des trois Programmes de Développement Rural de la région Nouvelle-Aquitaine pour la période de programmation 2014-2020', Rapport final, Juin, 272 p., and Technopolis Group, 2019, 'AMO pour la réalisation d'une évaluation ex-ante des instruments financiers de la Région Bourgogne Franche-Comté', Rapport final, Janvier, 142 p.

have limited equity and personal/family guarantees and because increasing levels of investments are needed to build-up the farm.

- **Lack of working capital:** The lack of available working capital might hinder the demand for investment finance, as farmers without a sufficient level of working capital would not be able to operate new investments (e.g. in infrastructure, equipment or land).
- **Lack of financial and accounting history:** Particularly for innovative investment projects, often related to recent trends such as ecological transition, short circuits, organic production or in-town production, a lack of financial or accounting history means farmers are reluctant to apply for a loan.

Figure 9: Reasons for not applying for loan in the agriculture sector in 2017



Source: fi-compass survey.

Main findings of the ex-ante assessments for the use of financial instruments in French agriculture[46]

- The described context of agriculture related to financing demand:
  - An increase in farm size with high development of corporate farms introducing specific financing problems (for both investments and working capital).
  - Transition of agriculture to deal with societal demand. The development of organic production is creating specific financing issues during the transition period.
  - Farm transmission, renewal of generation by young farmers, and new entrants with innovative projects.
- The main constraints to access finance are identified as follows:
  - Low return on investments, especially with new regulations (e.g. animal welfare) and societal demand.
  - Low and volatile farm income due to increasing adverse climatic, sanitary and market events.
  - A decrease in the capacity of personal collateral (increasing investment sizes, new equity management within families).
  - A lack of accounting history for innovative projects (e.g. new entrants in city farming).
- The supply of credit is provided by a few concentrated banks, mainly cooperatives banks. There is abundant supply of loans that seem adequate for mainstream investments. The interest rates for short, medium and long-term loans are low. They have been decreasing over the last decade due to decreasing national interest rates and high competition among banks.
- In a feasibility study of the Region Nouvelle Aquitaine, a supply and demand gap for medium and long-term loans of between EUR 400 and 845 million was estimated.
- In the Region Midi-Pyrénées, a financing gap for small and medium-sized firms was estimated (EUR 266 million for short term loans and EUR 1 184 million for medium and long-term loans).
- The financing gaps are not estimated in other ex-ante assessment studies. However, the Bretagne ex-ante assessment is estimating the need of a counter-guarantee of EUR 4 million for an expected EUR 54 million of additional bank loans for the 2015-2020 period (or 72 loans of EUR 800 000 each, resulting in 12 loans per year).
- Recommendation to regions: create fund-of-funds between regions (or the regional public bank BPI) using EAFRD resources to support specific investment projects in agriculture and the local food industry. Delegate the practical choice of projects to banks in order to reach the targeted fund leverage and to keep an adequate governance that maintains the balance between risk exposure and expected leverage.

46 Sources:
1) *fi-compass*, 2018, 'Etude de faisabilité en soutien à la mise en œuvre d'instrument financier combinant des ressources FEADER et FEIS dans le cadre des PDR des territoires de la région Nouvelle Aquitaine', Final Report.
2) PwC, 2017, 'Evaluer l'opportunité de recourir à des instruments financiers sur le territoire de l'ex Midi-Pyrénées', Final Report. Available at: https://www.fi-compass.eu/sites/default/files/publications/etude_evaluation_ex-ante_fis_mp_rapport_final.pdf.
3) EDATER-SOFRED, 2014, 'Région PACA – Evaluation ex-ante à la mise en place d'instruments financiers financés par les programmes régionaux FEDER, FSE et FEADER de la période 2014-2020', Final Report. Available at: https://europe.maregionsud.fr/fileadmin/user_upload/Evaluation_Ex_ante_IF_PACA_07-10-2016.pdf.
4) Blezat Consulting, 2016,'Evaluation ex-ante spécifique à la mise en place d'instruments financiers', Report 1. Available at: https://europe.maregionsud.fr/outils-pratiques/documents-et-lien-utiles/etudes-et-evaluations /evaluations-des-programmes-europeens-regionaux/pdr-feaderevaluations-ex-ante-et-diagnostics-prealables/.
5) Technopolis et Katalyse, 2015, 'Etude ex ante relative aux instruments financiers cofinancés par le FEDER 2014-2020', Fiches. Available at: https://www.fi- compass.eu/sites/default/files/publications/ex-annte-fr_08-_ex_ante_instruments_financiers_lot_1_fiche_par_instrument.pdf.

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 France operates. It describes the main financial products offered, including any currently operating financial instrument 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 agricultural producers. Potential differences in the availability of financial products across different types of agricultural producers are reviewed and analysed.

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

- The supply of finance to the French agriculture sector is heavily concentrated, with four banks accounting for 97% of the credit market. Two-thirds of the agricultural finance market (68%) is under the control of one bank – Credit Agricole.
- Among French regions, the distribution of credit is uneven, with a higher concentration in the western part of the country where capital-intensive farms (dairy, pig and poultry production) are located.
- The share of non-performing loans in French agriculture (1%) is lower than in other small and medium-sized businesses (6%) in other sectors.
- There are an increasing number of guarantee funds designed to facilitate the provision of credit for investments targeted towards the ecological transition of agriculture (green investments) and the food value chain.
- The outstanding loan volume has grown slightly over the last few years, reaching EUR 52.7 billion in 2018.
- On the supply side of the credit market, banks face issues related to: (i) new types of demand linked to new practices with limited historical financial data; (ii) higher loan sizes sought by farmers; (iii) increased number of larger and more complex farm legal and ownership structures; and (iv) increased volatility of farm incomes combined with low investment returns.
- The high level of market concentration on the supply side of agricultural finance may allow banks to be very selective in their financing decisions.

2.3.1 Description of the financial environment and funding availability

2.3.1.1 Finance providers

The financial providers that finance the agriculture sector are numerous. The table below summarises the key financial players, which are then described in further detail throughout this section.

Table 5: Financial providers to agriculture sector in France

Type of financial provider	Main organisations
Commercial Banks	Crédit Agricole, Crédit Mutuel, Banque Populaire-Caisse d'Epargne (BPCE) and Crédit Mutuel Arkéa
Public bank and specialised national institutions	Bpifrance
Equipment and input suppliers	Machinery dealers, farm input suppliers or integrators
Cooperatives and local producer organisations	Agricultural cooperatives, other groups of producers, and private platforms selling seeds, pesticides and fertilisers
Cooperative banks guarantee funds:	Caisse d'Assurances Mutuelles du Crédit Agricole (CAMCA) and the Compagnie Européenne de Garanties et Cautions (CEGC) of Banque Populaire
Private mutual guarantee funds	Société Interprofessionnelle Artisanale de Garantie d'Investissements (SIAGI), SOGAL-SOCAMUEL, L'Interprofession Porcine d'Aquitaine (INPAQ), Fonds Viande Blanche'

Source: Banks websites, 2019.

Commercial Banks

The French banking industry[47] is composed of 250 banks, including leading European financial institutions.[48] Of these banks, 92 are cooperative banks.The four dominant banks offering financial products to farmers are all cooperative banks: Crédit Agricole, Crédit Mutuel, Banque Populaire-Caisse d'Epargne (BPCE) and Crédit Mutuel Arkéa. The estimated market shares are 68% for Crédit Agricole, 16% for Crédit Mutuel, 9% for Banque Populaire and 4% for Crédit-Mutuel Arkéa.[49] These four banks account for a total market share of 97%. Other commercial banks are involved in the agriculture sector, but only marginally. It is a highly concentrated market, whereby many of the financing decisions are processed locally with strong peer involvement. This is possibly a reason why the outstanding loan value for French agriculture is high while the rejection rate is low.

Public bank and specialised national institution

Bpifrance is a National Promotional Bank that was created by law in 2012. It has the objective of providing a large spectrum of services and financial instruments to French commercial firms of different sizes, across all sectors and stages of development. Their primary focus is to support innovative firms. Bpifrance integrates former public institutions in charge of supporting innovation (e.g. OSEO S.A. which previously integrated ANVAR in 2005 and the Agence de l'innovation industrielle in 2008) or exports (e.g. part of COFACE).

Bpifrance has a lending toolbox dedicated to the agriculture sector for short, medium and long-term loans, through co-financing contracts with commercial banks, either directly or indirectly.

Bpifrance also provides guarantees either directly to individual companies or indirectly through banks, as well as to specialised private guarantee funds (e.g. SIAGI) or regional funds (e.g. Fonds de Garantie Bourgogne Franche-Comté). A specific instrument of Bpifrance is to guarantee banks when financing French farms.

47 http://www.fbf.fr/fr/contexte-reglementaire-international/cadre-juridique/organisation-du-systeme-bancaire-francais.
48 Fédération Française de Banque, 2018, 'French banking sector'. Four French banks are ranked among the euro zone's top nine and four also rank among the world's twenty largest banks by balance sheet assets.
49 Interviews with banks.

Equipment and input suppliers

Investment credit for farmers is also provided by farm equipment manufacturers through financing, as machinery forms an important part of the gross fixed capital formation. Working capital is also largely provided by input suppliers or integrators (e.g. in the poultry segment).

Cooperatives and local producer organisations

Other financial actors, namely agricultural cooperatives, other groups of producers, or private platforms selling seeds, pesticides and fertilisers (e.g. Agriconomie), also provide short-term credit. Groups of producers provide credit guarantees for their members with specific attention paid to supporting young farmers. These practices have already been presented in section 2.2.1, in the take-over models over existing farms or the establishment of new ones.

Public and private funds

In some cases, the own funds of banks could be used as a guarantee for agricultural loans granted by the same bank. The funds include, among others, the Caisse d'Assurances Mutuelles du Crédit Agricole (CAMCA) of Crédit Agricole and the Compagnie Européenne de Garanties et Cautions (CEGC) of Banque Populaire.

Mutual guarantee funds:

- Société Interprofessionnelle Artisanale de Garantie d'Investissements (SIAGI) is a mutual guarantee fund created in 1966 for Small and medium-sized enterprises (SMEs) across different economic sectors that have recently extended their activities to the agriculture sector, In 2017, they provided EUR 110 million in guaranteed loans to 665 farms. In terms of loan volume, Crédit Agricole represents 52% of SIAGI's activities, Crédit Mutuel represents 33%, and Crédit Industriel et Commercial represents 10%.
- The sector-specific private guarantee funds for the dairy sector are SOGAL SOCAMUEL, the Interprofession Porcine d'Aquitaine (INPAQ) for the pig sector, and 'Fonds Viande Blanche' for the white meat sector. These funds are dedicated to livestock production. There is no indication of the existence of such guarantee funds in the vegetal sector (main crops, industrial plants or wine).

EAFRD regional funds The '*Fonds Occitanie de Soutien Territorial aux Entreprises Régionales*' (FOSTER)[50] has been set up in the region Occitanie-Pyrenées-Méditerranée to support agricultural holdings and small agri-food enterprises (in the form of a guarantee for loans). Another similar regional guarantee fund has been implemented in Nouvelle Aquitaine (Alter'NA).[51] The latter also includes an EFSI contribution. The third regional initiative is from the region of Provence-Alpes-Côte d'Azur, with a Loan and Guarantee funds being set up ('PACA Initiative').

The EU Programme for Employment and Social Innovation (EaSI) Guarantee Instrument is funded from the EaSI Programme and dedicated to microfinance and social entrepreneurship. The aim is to support businesses with loans of up to EUR 25 000 and to providing them with support on activity development and networking. As of the end of 2018, under the EaSI programme in France, EIF provided access to finance for 585 SMEs in the agriculture, forestry and fishing sector, amounting to a total of EUR 10.3 million (6.6 % of the total portfolio).

50 https://www.laregion.fr/foster.

51 https://les-aides.nouvelle-aquitaine.fr/economie-et-emploi/alterna.

2.3.1.2 Financial products

Bank loans

Banks offer short, medium and long-term loans to farmers, with low, fixed interest rates. The distribution of medium and long-term loan size is asymmetric, with many small loans between EUR 20 000-40 000 and some large loans between EUR 3-5 million. Consequently, the average loan volume and number of loans should be considered carefully. Medium and long-term loans are mainly dedicated to investment projects but can also be provided for working capital. Short-term maturities, such as short-term loans and credit lines or bank overdrafts, finance annual spending on crop production (e.g. seeds, fertilisers) and wine production (inventory). In addition, revolving short-term credit is provided to finance input costs for production with short-term cycles (e.g. pigs, poultry).

Innovation in credit and loan design took place among the four leading banks. It includes variable interest rates, deferred payments, '*in fine'* loans (i.e. bullet loans where the re-payment happens at the loan's maturity), flexible loans, and loans from pooled banks for larger investments (syndicated loans). These innovations are aimed at coping with the rising risks stemming from the increasing size of farms and their investment projects, and the increasing volatility of farm incomes. Flexible loans that are particularly designed to cope with farm income volatility and agricultural market conditions are also offered. For instance, the flexible loans[52] prêt 'Modulagri' of Crédit Mutuel or 'Prêt à piloter Agri' of Crédit Agricole allow for changes in reimbursement levels within a certain range and against a related adjustment in loan maturity. These changes are aligned with changes in agricultural market conditions. Grace periods are accepted (e.g. a year) against a contractual adjustment in the subsequent reimbursement levels of the loan.

Financial support from the supplier and/or customer

Supplier cooperatives and groups of producers support investment in agriculture by offering favourable market conditions with minimum prices or market price premiums, especially for young farmers. While input suppliers, especially cooperatives, are mainly offering credit lines for the mainstream business, they also offer credit guarantees to young farmers when their farming projects has been approved (creation or development).

Long-term contracts with customers may also guarantee margins above full production costs (variable and fixed costs) throughout the investment life cycle for part of the production (e.g. organic pigs by Agromousquetaires).[53] Such swap contracts[54] limit the volatility of farm income and enhance creditworthiness.

Credit guarantees

As explained earlier, there are two private mutual guarantee funds: (i) the SOGAL-SOCAMUEL fund in the dairy sector that supports the milk producers' transition to a market with no milk quotas, and (ii) the SIAGI.

The SOGAL-SECAMUEL Guarantee fund has had a positive impact in the milk sector

Within the Farmers' Union, *Fédération National des Producteurs de Lait*[55] (FNPL), ensuring that dairy farmers have access to finance has been an ongoing point of discussion. In 2014, FNPL launched a programme (*Pacte*

52 *fi-compass*, 2019, Flexible financial products for the agriculture sector in the EU, Study report, https://www.fi-compass.eu/sites/default/files/publications/Flexible%20financial%20products%20for%20the%20EU%20agricultural%20sector_0.pdf.

53 Case study no. 4, Multiannual price risk management, in study of risk management in EU Agriculture. Available at: https://op.europa.eu/fr/publication-detail/-/publication/fa39d840-af66-11e8-99ee-01aa75ed71a1/language-fr/format-PDF/source-search.

54 Cordier J., 2018, 'Market incompleteness. The benefits of OTC contracts derived or not from futures markets', meeting of the expert group on agricultural commodity derivatives and spot markets, Brussels. Available at: https://ec.europa.eu/assets/agri/market-sectors/cereals/commodity-expert-group/2018-04-18/benefits_otc.pdf.

55 Translated as national federation of milk producers.

Laitier) to cushion the adverse effects for farmers of the deregulation of the dairy market in 2015. Its implementation can be described in three phases:

Phase 1: In 2014, during the initial phase, the fund guaranteed working capital as banks were reluctant to provide loans without a guarantee. The fund provided a guarantee of 60% of the total loan amount.

Phase 2: In 2015-2016, the European milk sector was hit by a severe market crisis. The fund provided support to help dairy farms restructure their debt and to provided guarantees for new loans with lower interest rates/longer terms. The fund provided a guarantee of 30% of the loan amount if Bpifrance guaranteed another 30%. The French Government also set up a similar scheme to support farmers. However, the FNPL observed different geographical results depending upon the efforts of banks in managing local application files. FNPL found the role of synergies between professionals and banks in organising proper financial support procedures to be crucial, as guarantees alone do not ensure that banks offer the loans needed.

Phase 3: In 2018-2019, milk producers began investing again. This was especially the case for larger producers. Banks financed larger projects (up to EUR 3-5 million) alone or within a pool of other banks. SOGAL-SOCAMUEL now has expertise in large-scale investments in dairy farms, which is shared with banks in the main territories and can also be provided in territories which have less bank-related expertise. In 2019, the fund had more than EUR 40 million of credit guarantees, with a high leverage ratio of 15x estimated by FNPL. It is also charging 0.4% for payments for guarantees paid by the milk producer.

<u>SIAGI is a mutual guarantee fund initially created in 1966 for the development of small businesses</u>.

In total, 60% of it is owned by *Chambre des Métiers et de l'Artisanat* and seven private banks, and 15% by BPI. The fund developed its activity in agriculture much later. In 2019, SIAGI provided guarantees for EUR 200 million[56] of loans through 785 contracts. These mainly related to new entrants, young farmers and innovative projects, such as bio-gas production (33% of contracts). SIAGI develops partnerships with French regions and local bank branches to provide loan guarantees (up to 70% of the loan amount). The cost of the guarantee, integrated into the loan costs, is related to the loan size, the type of investments, the loan maturity and, more generally, the risk-rating.

As an example of partnership, with the Region Provence-Alpes-Côte d'Azur, SIAGI created a guarantee fund called *Fonds Régional de Garantie Agricole PACA* in 2018.[57] With a EUR 6 million total public fund endowment, co-financed by EAFRD with EUR 3.78 million, SIAGI is providing loan guarantees (60% of loans from EUR 15 000 to EUR 600 000 guaranteed by the fund for a period of up to 15 years) for various investment expenses and working capital (60% of loans up to EUR 150 000).

National funds

The *Initiative Nationale pour l'Agriculture Française* (INAF)[58] is a national guarantee fund launched in December 2019, in order to support the transition of the French agriculture sector towards higher added value and sustainable practices, as part of the 2018-2022 French Investment Plan.[59] It is a First Loss Portfolio Guarantee financial instrument deployed through four selected financial intermediaries: Crédit Agricole, which accounts for 57% of the expected loan portfolio, Crédit Mutuel, which accounts for 22%, Group BPCE, which accounts for 12% and Crédit Mutuel Arkéa, which accounts for 9%. This guarantee fund is funded with EUR 99 million; 55% from national resources and 45% from EFSI resources. INAF is expecting 11x leverage, providing access to up to EUR 1.1 billion of guaranteed loans.

56 Agriculture represents 0% of the total SIAGI activity,2019. https://www.siagi.com/sites/default/files/documents/activite%20siagi%202019%20sans%20banques.pdf.

57 https://www.maregionsud.fr/aides-et-appels-a-projets/detail/fonds-regional-de-garantie-agricole.

58 https://agriculture.gouv.fr/tout-savoir-sur-linitiative-nationale-pour-lagriculture-francaise-inaf.

59 https://agriculture.gouv.fr/quest-ce-que-le-volet-agricole-du-grand-plan-dinvestissement.

The fund is complementary to other available financing sources, such as regional initiatives FOSTER or ALTER'NA. It is designed to support innovative projects targeting the national objectives of the agriculture sector and to reduce the credit gap resulting from the financing constraints of such projects. In practice, INAF is more restrictive than the regional initiatives in terms of eligible final recipients, but more comprehensive in terms of eligible expenditures.[60] INAF specifically targets the upstream part of the agricultural value chain and focuses on new entrants (farmers operating for less than seven years) and/or farmers with investment projects accounting for at least 50% of their turnover. The policy priorities of INAF are as follows: (i) generational renewal in agriculture; (ii) transformation of the current agricultural models through investments in innovation, competitiveness and social/environmental performance; (iii) responding to consumers' expectations by strengthening the links between the producers and the processing; and (iv) farmers' income diversification.

Regional EAFRD financial instruments

The *Fonds Occitanie de Soutien Territorial aux Entreprises Régionales (FOSTER)* is a Fund-of-funds created in 2015 by the Occitanie Region and comprising of, among others, resources from two 2014-2020 Rural Development Programmes from the former Midi-Pyrénées and Languedoc-Roussillon regions.

Table 6: Characteristics of the FOSTER guarantee

Characteristics	Specifics
Guarantee rate	80% of the loan
Maximum loan amount	Up to EUR 4.7 million, depending on the public support already received or about to be received
Guarantee duration	From 1 to 10 years
Conditions	Loan has to be provided by one of the financial intermediaries involved in FOSTER (i.e. Banque Populaire du Sud, Banque Populaire Occitanie, Caisse d'Epargne, Crédit Agricole)

Source: Fiche FOSTER, Occitanie Region (https://www.laregion.fr/IMG/pdf/foster_fiche_garantie.pdf).

FOSTER, based on the two regional RDP contributions, offers a separate 'Agri Guarantee fund' which provides loan guarantees to agriculture through three partner banks: Banque Populaire du Sud, Banque Populaire Occitanie and Crédit Agricole. The loan volume may integrate required working capital for up to 30% of the investment expense (Table 6). Specialised software has been developed as part of the setting up to facilitate the eligibility and guarantee design, as loans and guarantees must comply with thresholds of public support. The EAFRD guarantee of EUR 27 million could cover the first losses of a portfolio of new agri-loans of EUR 135 million, with an expected leverage effect of 5x.[61] As of the end of 2019, 280 agricultural businesses with overall financing amounting to EUR 38 million (based on committed EAFRD guarantees of EUR 15.8 million had already benefited from financial instruments delivered by the FOSTER Agri-fund.

The Agri financial instrument under FOSTER was followed by another fund-of-funds in the of Region Nouvelle Aquitaine, Alternative Nouvelle-Aquitaine (ALTER'NA). It aims to facilitate access to finance for the agricultural and agri-food sectors. The regional managing authority followed a targeted coaching on financial instruments provided by experts from the EIB (*fi-compass*) and Directorate-General AGRI, before deciding on whether to engage with this type of support or not, as it had no prior experience in this field. It was

60 https://www.eif.org/what_we_do/resources/inaf/index.html.

61 *fi-compass*, 2017, Financial instruments for rural development 2014–2020 Occitanie/Pyrénées-Méditerranée, France, Case study, https://www.fi-compass.eu/sites/default/files/publications/case_study_EAFRD_Occitanie_0.pdf.

the first region to join the newly established EAFRD-EFSI Initiative launched in November 2016.[62] With a level of EUR 36 million, of which EUR 14 million is EAFRD financed, EUR 16 million regionally financed, and EUR 6 million EFSI financed, ALTER'NA is expected to unlock EUR 230 million for three years with a leverage of 6.4x. The fund is run under the standard First Loss Portfolio Guarantee financial instrument deployed through three selected banks as financial intermediaries (Banque Populaire, Crédit Agricole, and Crédit Mutuel). Its implementation on the ground will start in mid-2020.

Aligned with the region's agri-ecological transition strategy, ALTER'NA is embedded into the 'Neo-Terra' regional programme in favour of agro-ecological transition. Specifically, in addition to promoting agricultural competitiveness in Nouvelle Aquitaine, ALTER'NA supports the objectives of 'Neo-Terra' through the promotion of:

(i) on-site farm transformation, processing, and marketing;

(ii) the organic transformation, processing, and marketing undertaken by agri-firms;

(i) high environmental value and/or organic vineyard activity; and

(ii) the sustainable greenhouse production of fruits and vegetables.

The target is to help about 1 500 farmers or agricultural enterprises by the end of 2023.[63]

The fund is complemented by an EIB advisory project conducted with the cooperation of the EAFRD managing authority and the European Investment Advisory Hub, which aims to improve accessibility to the guarantee fund and to ensure its dissemination throughout the region. The project developed an internet platform bringing together farmers willing to apply for a loan, the three banks and EIF, allowing them to efficiently deal with every issue and step through the approval and follow-up process.

Other regional funds supported under the EAFRD were created by the Region Provence-Alpes-Côte d'Azur: (i) **the Fonds Régional de Garantie Agricole PACA**, in partnership with SIAGI (see above description under SIAGI activity) and (ii) a loan fund under the so-called 'PACA Initiative'. The financial agreement was signed in August 2018 and a total of EUR 10 million of public resources (EUR 5.04 million EAFRD) were committed for the two funds. The Loan fund itself has a total budget of EUR 4 million (of which EUR 1.26 million is from EAFRD), while the Guarantee Fund amounts to EUR 6 million (of which EUR 3.78 million is from EAFRD). Both instruments are now up and running.

2.3.2 Analysis of the supply of finance

Interest rates have been decreasing for several years. As a consequence, the annual interest cost for the sector has decreased from EUR 1.17 billion in 2009 to EUR 0.51 billion in 2018 (by 56%). A comparative study[64] of interest rates for machinery (7-year loans) between the three leading banks provided to farm equipment cooperatives (CUMA) indicates a quite common level of 1.05% in 2018 (1.60% in 2015).

According to the *fi-compass* survey, interest rates for agriculture loans are much lower in France than in the EU 24. The average interest rates for short-term agricultural loans in France is 2.57%, compared to 4.76% for the EU 24. For medium-term loans, the average in France is 1.98%, compared to 5.11% for the EU 24, while the average for long-term loans is 2.07%, compared to 3.4% for the EU 24. The general average interest rates for non-financial corporations are outlined in Table 7. In 2017, they were below the level of interest rates for agriculture recorded in the *fi-compass* survey.

62 See https://www.fi-compass.eu/event/2290/second-eu-fi-compass-conference-eafrd-financial-instruments-agriculture-and-rural.

63 See https://www.fi-compass.eu/news/2019/04/nouvelle-aquitaine-cheaper-and-easier-loans-help-farmers-transition-sustainable.

64 https://www.entraid.com/articles/taux-dinteret-prets-bancaires.

In 2018, according to the Bank Lending Survey (BLS)[65] French banks reported that credit standards and overall terms and conditions on new loans and credit lines eased at the beginning of 2018 and remained unchanged for the rest of the year. Competitive pressure, risks perception, cost of funds and balance sheet constraints eased things further, especially on credit standards. The ease in the overall terms and credit conditions is mainly due to the further narrowing of bank margins (interest margin) on loans.

Table 7: Interest rate on loans to French non-financial corporations, 2015-2018

Type of loan	2015	2016	2017	2018
Short-term (<1 year)	1.81%	1.80%	1.60%	1.49%
Medium-term (1 to 5 year)	2.30%	1.89%	1.60%	1.53%
Long-term (>5 year)	2.62%	2.23%	1.99%	1.85%

Source: Banque de France, 2019.

In 2019, the total volume of loans and credit lines provided to the French agriculture sector reached[66] EUR 54 billion, which was 30% more than in 2012 (Table 8). The French federation of banks provided statistics on annual new loans for agriculture for the national convention EGAlim.[67] Based on this source, the volume of new agricultural loans was estimated at EUR 12.3 billion in 2018.

Table 8: Outstanding loan volume to the French agriculture sector 2012-2018, EUR billion

Year	2012	2013	2014	2015	2016	2017	2018	2019
Outstanding loan volume	41.9	43.1	46.2	47.7	49	50.4	52.7	54.2

Source: Central Bank (Banque de France), 2019.

Regions with a high level of outstanding loan volume are concentrated in the western part of France along the Atlantic coast. The western part of France (Bretagne, Normandie, Pays de la Loire, and the northern part of Nouvelle Aquitaine) accounts for a high level of outstanding farm credit due to the concentration of milk, bovine, pig and poultry production in these regions. The wine-growing regions (Bordeaux, Bourgogne and Champagne regions) also present a high level of outstanding credit, made possible by their valuable inventories.

According to interviews with banks, approximately 60% of medium and long-term loans are granted without guarantees. This is consistent with the *fi-compass* survey, whereby 63% of banks did not ask for a guarantee. Other loans are granted with various guarantees, such as personal or external guarantees, or collateral, pledges or warrants. The *fi-compass* survey indicates that almost 100% of the guarantees are provided through personal collateral (Figure 8).

Interviews with banks indicated that the rejection rate for loan applications is approximately 2%. Loan default rates in the agriculture sector (1% also tend to be very low compared to those of SMEs from other sectors of the economy (6%).

However, some constraints affecting the supply of finance to agriculture were identified following interviews with banks. These include:

65 https://www.ecb.europa.eu/stats/ecb_surveys/bank_lending_survey/html/index.en.html.

66 The outstanding loan volume includes lending to forestry and fisheries. Available at : http://webstat.banque-france.fr/fr/quickview.do?series_key=332.diren.m.fr.cr.lme.en.01.n.az.tt.

67 Etats Généraux de l'Alimentation that introduced the Law no. 2018-938, 30 October 2018. https://agriculture.gouv.fr/egalim-pourquoi-des-etats-generaux-de-lalimentation.

- **Lack of credit history** of the applicant and limited financial data for farms with new production techniques, such as insect farms, urban farms, hydroponics and aquaponics, segments of the sector which are new to organic production (e.g. intensive livestock production), short food supply chains (with high automation) and alternative production methods (e.g. agri-environmental, agroecology).
- **Lack of equity** of the applicant. Interviews with the banks revealed that this constraint affects the risk profile of individual farmers (natural persons) who apply for a loan. It is usually addressed by increasing the tenor of the loan. For instance, the average repayment timeframe for loans to dairy farms increased after the 2016 crisis from 15 years to 18 years.
- **The legal status/organisation of farms** is becoming increasingly complex. Generational transfer, as described earlier in this report, is expected to change the way in which farm-related investments are financed. As presented in section 2.2.1, corporate farms (usually large-sized farms, diversified in capital and production, but to a lesser extent also medium- and small-sized farms) require innovative instruments for managing personal equity, investment loans, and working capital. Banks believe that external guarantees are essential and that innovative financial instruments will be a key element in the future.
- **Increasingly volatile farm incomes**, while returns on investment remain persistently low.
- **Working capital finance.** Banks have an interest coverage ratio,[68] for instance of EUR 70 per 1 000 litres of milk or EUR 500 per hectare of cereal crops, for short-term loans or a bank overdraft. This ratio is established according to risk levels and it puts a limit to the amount of financing in relation to the economic activity. The risk associated with working capital finance mainly stems from the difficulty to secure such a loan with appropriate guarantees.
- **Banks can adopt selective bank policies** that exclude farmers who are unable to present a convincing business case or plan. Selectivity in the loan application assessment is also facilitated by the high level of market concentration.

68 The interest coverage ratio is a metric used to measure a company's ability to meet its debt payments, also known as times interest earned.

2.4 Financing gap in the agriculture sector

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

Key elements of the financing gap in the French agriculture sector
• The financing gap for French agriculture sector is estimated to be between EUR 1.3 billion and EUR 1.7 billion. • 43% of the financing gap stems from large-sized farms. • Long-term loans constitute the largest part of the gap (70-90%). However, access to short-term finance may also be difficult. • The main obstacles in accessing finance are investment risk that is considered too high, low and volatile expected return on investment, a lack of collateral and lack a of business history for innovative projects.

This section presents an estimate of the total value of unmet financing needs of financially viable agricultural enterprises, defined as 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.

Financing gap = Number of farms X percentage of firms that are both financially viable and have unmet demand X average loan volume

All the calculations are based on the results of the *fi-compass* survey for French 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[69]. 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. In particular, 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 boundary:

- 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 French agriculture sector is estimated to be between EUR 1.3 billion and EUR 1.7 billion (Figure 10). The financing gap mainly concerns large-sized farms, whose needs represent 43% of the total gap.

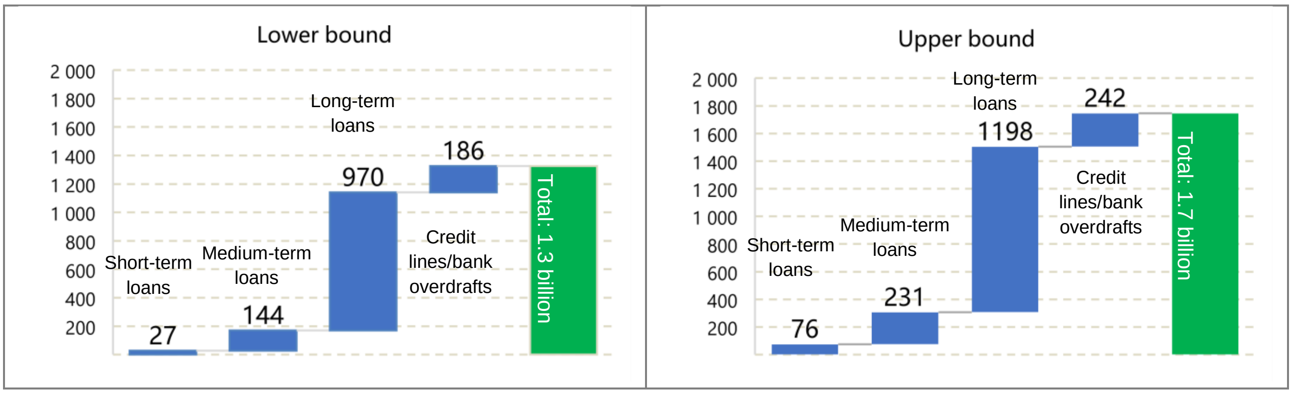
Medium and long-term loans account for 82-84% of the gap, while short-term credit accounts for 16-18% (Table 9). **However, difficulties in satisfying increasing working capital finance needs were highlighted**

69 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.

in the analysis. According to the *fi-compass* survey, more than a quarter (28%) of loan applications were for working capital finance. The survey also shows higher rejection rates for short-term financing products. This translates into a lower financing gap, due to the lower average size of short-term loans and the non-banking financial sources available for these financial needs (e.g. input supplier credit, cooperatives). In addition, working capital needs may also be financed by loans with 1.5 to five years maturity, and this may underpin some of the rejected or discouraged medium-term loan applications.

Interviewees reported that financial institutions generally do not adequately finance the working capital of new risk management practices developed to cope with the increasing volatility of farm income. Similarly, there is a financing deficit for the working capital requirements of new investments. These are often large and innovative projects with low financial foundation. This segment of the gap is likely to increase in the near future.

Figure 10: Financing gap of French agriculture sector by product, 2017



Source: fi-compass survey.

Table 9: Financing gap of French agriculture sector by farm size and product, 2017, EUR million

		Total	Short-term Loans	Medium-term Loans	Long-term Loans	Credit lines/bank overdrafts
Upper bound	Small-sized farms	**377.6**	12.5	51.7	282.2	31.2
	Medium-sized farms	**570.0**	22.2	69.0	430.3	48.6
	Large-sized farms	**798.9**	41.0	110.0	485.7	162.3
	Total	**1 746.5**	**75.6**	**230.6**	**1 198.2**	**242.1**
Lower bound	Small-sized farms	**289.1**	4.4	32.2	228.5	24.0
	Medium-sized farms	**436.5**	7.9	43.0	348.4	37.3
	Large-sized farms	**600.9**	14.6	68.5	393.2	124.6
	Total	**1 326.4**	**26.8**	**143.7**	**970.1**	**185.9**

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

More than 90% of the financing gap stems from discouraged loan applications. A large part of discouraged loans come from farmers who did not apply for a loan following the advice of an accountant or a financial advisor, which also partly explains the low level of rejections. Based on the analysis conducted for this study, these difficulties are mostly related to:

- Low and volatile economic margins that increase banks' risk perception.
- Lack of business history of the applicant, a lack of financial data on innovative investments or new production practices that may increase bank's reluctance towards the investment.
- Lack of sufficient assets that can be used as collateral and a lack of own capital

On the supply side, banks signal difficulties related to the increasing size and complexity of investments. The ownership structure of larger enterprises is also evolving towards more complex farm financial structures and financing needs. The significant market concentration also allows bank to apply selective policies in their risk assessments.

New entrants and young farmers are likely to account for a significant share of the financing gap. Interviews revealed that farmers who take over existing farms or establish their own farms face difficulties fully financing their projects. For individual farmers, some of the challenges arise from a lack of personal equity needed to secure larger sized long-term loans. For corporate farms with new structures (e.g. multiple shareholders, external investors, complex and diverse production with innovative investments), the challenges stem from new financial needs, regardless of the size of the farm (section 2.2.1 contains a full discussion). Furthermore, the lack of support from an agricultural cooperative and/or from the regional authorities could further drive the financing gap for young farmers.[70] When financing young farmers or new entrants, or the expansion of existing farms through innovative projects, the rural banks seek support from local farmer organisations, such as unions and cooperatives. Support can also be sought from regional authorities. This support for young farmers, through various instruments (described in section 2.3.1.1), is a key requirement for the approval of projects by the banks. Projects that fail to attract such support from cooperatives or regional authorities lead to additional discouraged or rejected loan applications.

70 Interviews with farmers' organisations from both the crop and livestock sub-sectors.

2.5 Conclusions

The agricultural finance market in France has been steadily expanding over the last ten years. However, the GVA per working unit has stagnated. Demand for finance is driven by a growing number of larger farms, an increase in the average farm size, risk management strategies and the modernisation of equipment, infrastructure and processes. Generational renewal is also driving demand for finance, either through individual establishment or through corporate farm structures. In addition, increased levels of working capital are a defining characteristic of ongoing changes in the sector. As a result, the need for working capital finance is increasing across all sub-sectors. This trend in financial needs is driven by sales growth, marketing practices to cope with volatility in input and output markets, and production risk management during transition periods.

The CAP and EAFRD support are a stable backbone for economic development within the sector. They play an important role in supporting farmers' incomes and their investment activities. The overall access to credit in France is favorable thanks to a healthy banking sector and low interest rates. In addition, French farmers can count on a group of financial intermediaries with a high level of sector specialisation and a long tradition in lending to agriculture.

However, these specialised intermediaries have a strong control of the markets, with one bank alone accounting for almost 70% of the market, and four intermediaries together accounting for almost the entire market. Although no major constraints emerge in the supply of finance, this level of market concentration may allow banks to be very selective in their financing decisions.

Rejection rates of loan application are low compared to the EU average and the identified market gap mostly relates to discouraged enterprises that refrained from approaching banks due to a fear that their loan application would be rejected. From the consultations with stakeholders, however, it emerged that this level of discouragement might arise from preliminary consultations with financial advisors and/or preliminary contacts with banks. This implies that **the very low rejection rates identified do not necessarily imply an absence of obstacles in accessing finance**.

The analysis shows that these constraints in access to finance **generate a financing gap between EUR 1.3 billion and EUR 1.7 billion**. While 43% of the gap relates to large-sized enterprises, the gap for small and in particular medium-sized enterprises is still significant.

New entrants and young farmers are likely to account for a significant share of the financing gap in the French agriculture sector. Interviews revealed that farmers who take over existing farms or establish their own farms face difficulties in fully financing their projects.

In terms of maturity, the gap is concentrated in medium and long-term loans. However, access to working capital finance is reported to be an issue for the sector. New needs are linked to changes in production practices and risk management, while banks tend to follow a more traditional approach (maximum EUR/ha threshold).

Overall, the main obstacles identified that constrain access to finance relate to:

- Low and volatile economic margins that increase banks' risk perception.
- Applicants' lack of business history or financial data on innovative investments or new production practices, which may increase a bank's reluctance to finance an investment.
- Lack of sufficient assets to be used as collateral and lack of own capital may also constitute obstacles.

Banks also signal difficulties arising from the increasing size and complexity of agricultural investments. The ownership structure of larger enterprises is also evolving towards more complex farm financial structures and financing needs.

Overall, based on the analysis conducted for this study, and constraints and the market gap identified, the following recommendations should be taken into account:

- Several financial instruments, with EAFRD, EFSI and national/regional resources, have been put in place during this programming period at both the national and regional level. However, most of them have only been created very recently and so it is not possible to fully assess their impact on the financing gap at this stage. The analysis suggests that they may be unable to significantly reduce the rather substantial financing gap by the end of the current programming period. At a later stage, a review of these instruments should be conducted. This review should verify the adequacy of the available capital funding, the concrete ability of the instruments to address the constraints of the most affected enterprise segments, as well as their performance and efficiency. Based on such a review, the scope for establishing new initiatives, including under the CAP Strategic Plan 2021-2027, could be evaluated.
- To address the needs of young farmers, the opportunities offered by the new legal framework, such as the easier combination of financial instruments, grant support and interest rate subsidies, or the possibility to finance the purchase of land for young farmers, could be embedded in any future financial instrument under the CAP Strategic Plan 2021-2027.
- Considering the increasing number of more complex farm legal and ownership structures, the feasibility of a pilot equity or quasi-equity instrument might be analysed. Such an analysis could also focus on the need to support start-ups and, in particular, young farmers and new entrants with innovative ideas, as these two groups were found to be particularly constrained in their access to finance.
- Difficulties in addressing new and increasing needs for working capital, especially for medium and large sized agricultural enterprises, which also constitutes a significant part of the financing gap, could be addressed by providing stand-alone working capital finance through EAFRD-funded financial instruments, which will be possible under the new legal framework.

3. PART II: AGRI-FOOD SECTOR

3.1 Market analysis

Key elements on the French agri-food sector
• The agri-food sector is the largest manufacturing industry in France, accounting for 18% of the total manufacturing industry's turnover. • The French agri-food sector is also a significant employer, with 605 700 full-time employees. • The total number of firms in food manufacturing and beverages in France was 55 151 in 2018, of which 28% were industrial enterprises and 72% were non-industrial enterprises called 'commercial craft' (e.g. small bakery or butcher). • Nearly all (97.8%) firms in the sector are small-scale enterprises (under 50 employees). • In 2018, the turnover of the food industry amounted to EUR 225 billion. Industrial enterprises accounted for 93% of the turnover, while non-industrial enterprises accounted for just 7%. • With regards to turnover, the main sub-sectors are beverages (21%), followed by meat processing (18%) and dairy (17%). • The gross value added of the sector was EUR 46 billion in 2018, of which 86% was by industrial enterprises and 14% by non-industrial enterprises. • The sector had an export value of EUR 33.4 billion in 2018,[71] with exports accounting for 21% of agri-food enterprises' turnover. • The food sector is considered innovative (even though its ratio of R&D spending relative to turnover is lower than the overall manufacturing sector's average), driven by high and changing consumer demand and strong competitive pressure.

The agri-food sector is the largest manufacturing industry in France. It accounts for 22% of the turnover of French manufacturing and for 18% of the gross value added.[72] In 2018, the food and beverage manufacturing sector registered a turnover of over EUR 225 billion and had 605 741 full time employees (Table **10**).[73]

There were 55 151 food and beverages manufacturing enterprises in France in 2018, according to Eurostat. While French statistics only reported 15 040 enterprises,[74] the difference is due to non-industrial firms that usually called 'commercial craft' (e.g. small bakery or butcher) and which are not included in the French statistics figure[75] Consequently, for the Eurostat figure, industrial enterprises accounts for 28% and non-industrial enterprises account for 72%.

71 European Commission, DG AGRI, June 2019, Statistical Factsheet for France, https://ec.europa.eu/info/sites/info/files /food-farming-fisheries/farming/documents/agri-statistical-factsheet-fr_en.pdf.

72 Eurostat and Graph'Agri 2019 – Agreste, la statistique agricole (2019), https://agreste.agriculture.gouv.fr/agreste-web/disaron/GraFraChap6.1/detail/.

73 Eurostat and Agreste Les entreprises agro-alimentaires en 2016 , no 194, Nov. 2018, https://agriculture.gouv.fr/iaa-chiffres-et-indicateurs-cles.

74 Panorama des Industries Agroalimentaires – Edition 2020. Source Esane 2017 – INSEE: 15 040 number of food and beverage firms, 39 791 commercial crafts, turnover of firms EUR 213 billion and 461 544 employees. https://agriculture.gouv.fr/iaa-chiffres-et-indicateurs-cles.

75 See https://www.insee.fr/fr/metadonnees/definition/c1072.

The manufacturing of beverages is the largest sub-sector (21% of the sectors' turnover), followed by the processing of meat products (18%) and dairy (17%).[76] The meat and grain sub-sectors are the most labour intensive. The ratio of the number of employees to value added is higher in these two sub-sectors than the food sub-sector average. It also higher than in the beverage, dairy and chocolate/sugar confectionary sub-sectors, which have lower ratios than the food sub-sector average.

Table 10: Characteristics of the food industry and beverages in France in 2018

Agri-food sub-sector	Number of firms	Turnover (EUR million)	Employees full time equivalent	Added value (EUR million)
Manufacture of food products and beverages	**55 141**	**225 397**	**605 741**	**6 214**
Processing of meat	5 466	39 900	114 512	699
Processing of fish	311	4 455	11 021	1 687
Processing of fruits and vegetables	2 550	8 765	23 781	745
Manufacture of oils and fats	228	8 787	8 669	5 996
Manufacture dairy products	1 322	38 678	78 001	1 683
Grain and starch products	353	10 839	19 842	8 859
Manufacture of bakery and farinaceous products	36 303	25 741	185 077	6 962
Other food products	4 454	32 278	77 786	6 962
Manufacture of animal feeds	301	9 113	13 545	1 542
Manufacture of beverages	3 853	46 841	73 507	12 090

Source: Eurostat, Structural Business Statistics, 2019.

Almost the entire agri-food sector is composed of micro and small-sized enterprises. About 97.8% of the French agri-food firms have less than 50 employees and, within this class, 91% employ less than ten people. Medium-sized enterprises (less than 250 employees) account for 1.7% of the industry, while large-sized firms account for only 0.5%.

Cooperatives are major actors within the agri-food chain. With 2 600 enterprises, including 2 300 small and medium-sized enterprises, they account for 40% of the total turnover (EUR 86 billion in 2019[77]) and 27% of total employees. The repartition of agri-food enterprises across the country means the sector plays a leading role in territory development in France. Agricultural cooperatives, in particular, keep a dense network of activities throughout the country (74% of cooperative headquarters are located in rural areas and 75% of farmers are members). The regions of Bretagne, Pays de Loire, and to some extent Auvergne-Rhône-Alpes, are leading in terms of production and employment, while the regions of Auvergne-Rhône-Alpes, Nouvelle Aquitaine and Occitanie are leading in terms of the number of firms.

76 The ranking takes into account the following indicators: number of firms operating in the segment, turnover, and people employed. Additionally, the classification is proposed under two limits: first, the 'other sector' under NACE C108 has been split into its main sub-sectors, e.g. sugar, chocolate and sugar confectionary, coffee.

77 Source: La coopération agricole, pilier de l'économie française , Haut Conseil de la Coopération Agricole (HCCA), https://www.lacooperationagricole.coop/fr/une-reussite-economique-et-sociale.

Exports account for 21% of the turnover of industrial agri-food firms. France is a net exporter of food products (and raw agricultural products), with an export value (including EU) of about EUR 62.3 billion in 2018.[78] The main exporting sectors are beverages (EUR 9.5 billion), dairy (EUR 7.1 billion) and meat products (EUR 3.5 billion). About 65% of the commercial flows are intra-EU. However, since 2014, the trade balance for intra-EU trade flows has been negative and reached almost EUR 3 billion in 2018. Germany, Italy, and the United Kingdom are the main trade partners. However, their demand is declining, and the future export performance of the sector remains uncertain after the Brexit.

The rate of gross value added on turnover of the food sector (19%) is significantly lower than the manufacturing average (25%) and it has been declining over the last decade.[79] The market power of the retailing industry is frequently referred to as the cause of the historically low commercial margins of the food industry. The beverage and dairy sub-sectors, as well as some activities in the chocolate and sugar confectionary sub-sector, have ratios that are above average, while grain, meat and fruits and vegetables have ratios that are below.

78 https://www.vie-publique.fr/parole-dexpert/271841-balance-commerciale-agroalimentaire-francaise-un-excedent-menaceises.pdf.

79 From INSEE – Esane, 2018.

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, analyses and quantifies 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 which face more constraints in accessing credit. The analysis of the demand for agri-food finance is based on the findings from the Agri-food survey results of 180 French firms, as well as interviews with key stakeholders from the agri-food sector, combined with national statistics.

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

- Investment in the French agri-food sector grew by 35% from 2014 to 2017 and was estimated to be between EUR 13-14 billion in 2017.
- The industrial food and beverage enterprises invested EUR 10.2 billion in tangible assets in 2017.
- Medium and large-sized industrial enterprises accounted for 77% of investments (EUR 7.8 billion) in 2017.
- Modernisation of production and packaging, transportation, and storage of equipment facilities are the main investment drivers in the French agri-food sector.
- Other investments are related to energy performance (efficiency), export development, and expansion (e.g. acquisition, mergers, and joint ventures).
- Investment in food innovation is estimated at 2.2% of turnover for industrial enterprises, which is lower than the manufacturing sector average of 3.3%.
- According to ANIA, the main association of food firms, investments in productive assets have been quite low over the last decade, especially in fixed assets, due to the low profits of agri-food enterprises that have resulted in a loss of international competitiveness.
- The total unmet demand for finance in the French agri-food sector is estimated to be EUR 4.3 billion.
- The main reasons for rejection of loan applications are a lack of credit history, high business risk linked to low profitability and insufficient collateral or guarantees.
- Start-ups, small and medium-sized enterprises are the more affected segments.
- 15% of French agri-food enterprises did not apply for a loan due to procedures that were considered too complex or lengthy.
- 10% enterprises did not apply for bank loans (8% in the case of credit lines) due to a fear of rejection.

3.2.1 Drivers of total demand for finance

The total value of investment in the French agri-food sector was estimated to be between EUR 13-14 billion in 2017[80] by the ANIA (the national association of food industry) and to have grown by 35% over the 2014-2017 period.[81] EUR 10.2 billion is invested in tangible assets, between EUR 3-4 billion in (non-tangible) innovation assets, and EUR 2 billion in related working capital requirements.[82]

80 An estimate of the investment value in the sector supported by the Association Nationale des Industries Alimentaires (ANIA). Data for 2018/2019 were not available.

81 The Observatoire Financier des Entreprises Agroalimentaires , 2018, n°9 of Crédit Agricole is indicating a 40% increase in investments between the average 2012-14 and the average 2015-17. This increase is mainly due to large agri-food enterprises.

82 Eurostat Business Statistics database (SBS).

Table 11: Gross investments in the French agri-food sector

	Number of firms	Gross investment in tangible goods (EUR million)	%
Manufacture of food products and beverages	**55 141**	**10 214**	**100%**
Processing of meat	5 466	1 102	11%
Processing of fish	311	105	1%
Processing of fruits and vegetables	2 550	392	4%
Manufacture of oils and fats	228	196	2%
Manufacture dairy products	1 322	1 150	11%
Grain and starch products	353	364	4%
Manufacture of bakery and farinaceous products	36 303	1 276	12%
Other food products	4 454	1 400	14%
Manufacture of animal feeds	301	339	3%
Manufacture of beverages	3 853	3 890	38%

Source: Eurostat, Structural Business Statistics, 2019.

Within the French agri-food sector, the beverage sub-sector shows the highest level of investment. In 2017, investments in tangible assets in the sub-sector accounted for 38% of the overall investment in the agri-food sector (Table 11). Manufacturing of beverages also represented the segment of the industry that experienced the largest increase over time – between 2014 and 2017, investments grew by 81%, increasing from EUR 2.2 billion to EUR 3.9 billion.[83] The high share of investments in the beverages sub-sector is the result of efforts to expand on the global market.

Investment in tangible assets by all food manufacturing sub-sectors (Table 11) stood at EUR 6.3 billion in 2017 and accounted for 62% of total investment in the agri-food sector. Investment in tangible assets in the manufacturing of other food products experienced an increase of 15% over the period 2014-2017. With nearly EUR 1.3 billion of investments, the bakery and farinaceous sub-sector dominates within food manufacturing investments, followed by the dairy sub-sector (EUR 1.2 billion).

The heterogeneity of the sector has induced a variety of investment schemes, depending on the sub-sector of activity, firm size, and ownership structure (e.g. private or cooperative). For example, if the bakery and meat sub-sectors have high absolute levels of investment, the value of investment per firm is low, as most of firms are small commercial crafts. Bakery, processing of meat and fruits and vegetables have the lowest values of investment per firm, while sectors of grain and starch products, dairy and oil products have the highest values. Crédit Agricole[84] states that the investment level represents 4.3% of the turnover for the whole sector, but only 2.7% of the turnover on average for the diversified French cooperatives, and with differentiated values for small, medium and large cooperatives.

83 Eurostat Business Statistics database (SBS).
84 Observatoire financier des Entreprises Agroalimentaires, no 12, May 2019.

Medium and large-sized enterprises account for 77% of the sectors' investment, with smaller enterprises falling behind. On average, medium and large industrial enterprises invested EUR 1.6 billion and EUR 6.3 billion, respectively, while small enterprises invested EUR 0.4 billion.[85] Large enterprises contributed to 62% of the total investment in the sector. According to Crédit Agricole,[86] the increase in investment mainly stems from large enterprises with turnover greater than EUR 1 billion,[87] while the investment by smaller enterprises is trending downward.[88] Consequently, production lines of small and medium enterprises are modernising to the extent necessary[89] to maintain an adequate level of competitiveness.[90]

Despite reduced profit margins and declining investment levels, French agri-food enterprises are still playing a leading role in French manufacturing. The sector is characterised by its export-orientation and increasing product differentiation. **Investments are mainly driven by** the following dynamics:

- Capacity expansion by means of acquisitions, mergers and joint ventures (mainly for very large and international enterprises).
- Production efficiency and product innovation, which is related to the digitalisation of most enterprise functions.
- Compliance with stringent standards stipulated in regulations, especially in regard to the energy performance of enterprises and improved waste management practices.[91]
- Strengthening of vertical integration calls for long-term contracts to secure product availability at required quality levels and to optimise processing capacity, which leads to short-term investment requirements.

Capacity expansion is the main reason French agri-food enterprises seek finance. Two-thirds of French enterprises responded in the Agri-food survey that investments in capacity expansion, including processing equipment, buildings and vehicles, are the main reason they demand finance. The second largest driver of demand for finance was for investments in inventory and working capital (25%) and this was marginally lower than for the EU 24 (30%) (Figure 11). Refinancing (14%) and the development of new products (12%) are additional demand drivers.

85 In 2017, the average investment of a very large-sized firm (above 5 000 employees) was EUR 4.46 million. Large-sized firms (between 250 and 4 999) invested EUR 2.00 million, small and medium-sized firms (between 10 and 249 employees) invested EUR 0.32 billion and micro-firms (between zero and nine employees) invested EUR 20 000.

86 Observatoire financier des Entreprises Agroalimentaires, no 11, Novembre 2018. The data base of the Observatoire financier – Crédit Agricole is including firms with turnover above EUR 2 million for a total turnover of 'only' EUR 182 billion, or 81% of the sector total turnover. The database includes private and cooperative firms.

87 French enterprises labelled as 'leaders' in the sector.

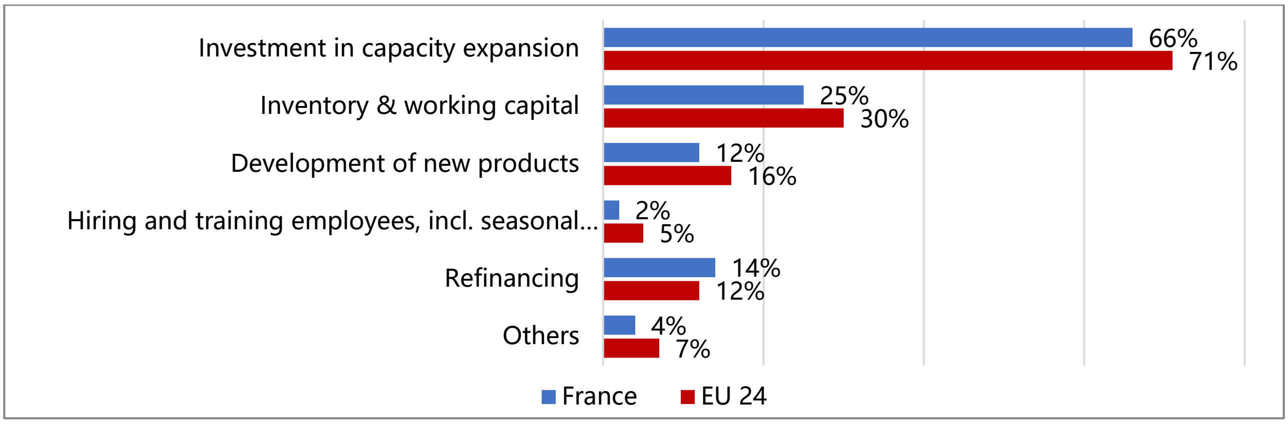
88 Observatoire financier des entreprises agroalimentaires, no 13, Jan 2020, https://etudes-economiques.credit-agricole.com/Publication/2020-Janvier/Observatoire-financier-entreprises-AA.

89 Duplomb L., May 2019, Rapport d'information du Sénat no 528, Gaigné C. et S. Turolla, 2019, 'Dynamique de la productivité et des marges dans les industries agroalimentaires françaises'.

90 As presented in section 2, France lost its leading place as a world agri-food exporter in 2005 and has been a net importer of food products from other European countries since 2014.

91 The public agency ADEME is providing all regulation and plans and measures currently enforced, https://www.ademe.fr/expertises/dechets/elements-contexte/politique-vigueur/dossier/cadre-reglementaire/reglementation-francaise-dechets.

Figure 11: Purpose of bank loans in the agri-food sector in 2018

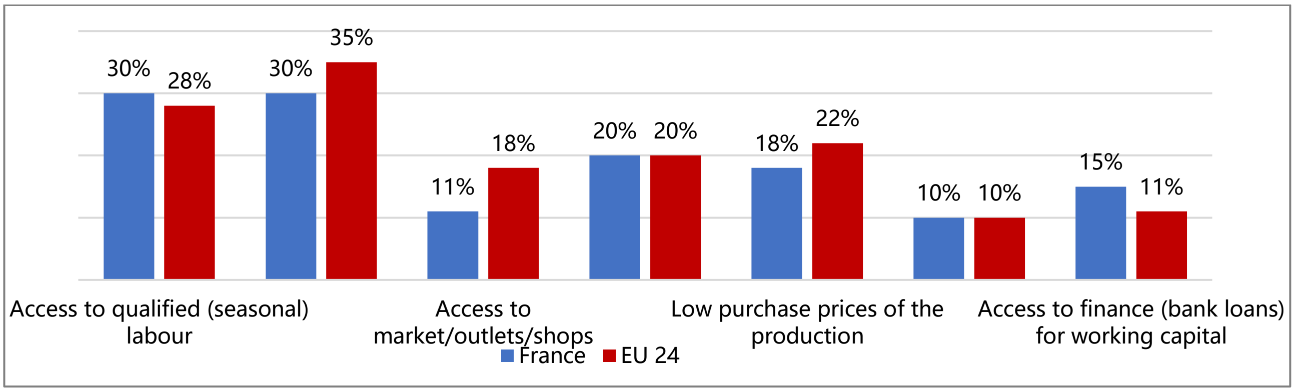


Source: Agri-food survey.

French agri-food enterprises invest to improve their competitiveness. To improve the sector's economic performance, ad-hoc growth strategies have been developed that aim to increase the return on investments, reduce fixed costs, and to increase market risk diversification. To achieve these objectives, more resources are allocated to creating digital supply chains that have adapted storage and efficient means of transportation, which supports increasing product differentiation.[92] Additionally, interviews suggested that French agri-food enterprises aim to increase the digitalisation of most of their functions, such as e-marketing and e-commerce, production and logistics with connected objects, quality management, research and development. Dedicated websites of larger enterprises have been developed for the different sub-sectors' stakeholders, clients, employees, media and investors. As firms grow, working capital requirements are also increasing, which further increases the demand for finance.

The demand for finance is also driven by the necessity to improve efficiency and to reduce labour requirements. Access to qualified labour and high production cost were cited by 30% of respondents as the main difficulties faced by French agri-food enterprises (Figure 12). According to interviews, the agri-food industry is struggling to attract additional human capital. Although the sector remains the largest employer in France, it still suffers from labour shortages. The other main issues are related to regulation (20%) and the low purchase prices of products (18%). Regarding access to finance, French agri-food companies face more difficulties requesting financing for working capital (15%) than for investments (10%).

Figure 12: Difficulties experienced by agri-food enterprises in 2018



Source: Agri-food survey.

92 Interviews with agri-food associations.

Overall, about 70% of the Agri-food survey respondents reported a significant or slight increase in their production costs, while only 38% reported increases in their selling prices. This resulted in a decrease of margins within the industry (Figure 13).

Figure 13: Changes in key economic indicators of agri-food enterprises in 2018

Source: Agri-food survey.

Several recent national initiatives have been undertaken to support investment in the sector. The Platform of agri-food stakeholders (*Etats Généraux de l'Alimentation (*EGalim)) launched by the Ministry of Agriculture in 2017, aims to stimulate the development of value added and optimal distribution along the food value chain. The 29 sector plans (*Plans de Filières*[93]*)* present relevant investment requirements for specialised food chains as the first output of the EGalim platform. In addition, in 2018, the Ministry of Agriculture launched the agri-food investment programme.[94] This programme has a budget of EUR 5 billion over the 2018-2022 period, to be deployed through loans, guarantees and equity instruments as well as grants. The public partners of the programme are AgenceBio for the development of the organic production, ADEME for the energy

93 See https://agriculture.gouv.fr/egalim-les-plans-de-filieres.

94 Ministère de l'Agriculture et de l'Alimentation, 2018, Grand plan d'investissement – Volet agricole, Paris 19 p. https://agriculture.gouv.fr/gpi.

transition and Bpifrance for other strategic topics of the programme.[95] By March 2020, the programme had financed 28 projects for EUR 3.5 million invested, including EUR 1.7 million of public support.

In 2019, the French government launched the Pacte Productif 2025 initiative.[96] Its objective is to design a new model of industrial development, including competitiveness, full employment and 'greening'. Specific studies and surveys have been conducted by the ANIA association with a view of identifying the major constraints in the development of the food and beverage manufacturing sector, including the financing issues. Some of the results are provided in the following section.[97]

The EAFRD has a role to play in both driving and addressing the demand for finance in the sector. According to preliminary RDP data from the Ministry of Agriculture, that regional managing authorities have made EUR 318 million available under 88 regional calls for grant applications, as of the end of 2019. The demand for finance has almost been as high as the offered budget, with a total of 4 095 applications being submitted for assessment. The total requested RDP budget for financing from all submitted applications, before their administrative and eligibility check, was EUR 50 million more than what was available.

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 aggregate loan volumes of all applications for finance which were accepted by the financial institutions in the relevant year. The unmet demand consists of the estimated aggregate loan volumes of applications rejected by financial institutions, offers of credit refused by agri-food enterprises, alongside cases where enterprises were discouraged from applying for credit due to an expectation of rejection or refusal.

Based on the Agri-food survey, **the total unmet demand for finance is estimated at around EUR 4.3 billion.** The bulk of the unmet demand comes from medium and small-sized firms. This result is in line with the information gathered from the interviews, which suggested that **medium-sized enterprises and small start-ups face the greatest difficulties** in accessing finance.

Interviews revealed that large-sized enterprises (and sometimes small-sized enterprises) have better cost-effectiveness ratios than medium-sized enterprises.[98] Large and market-leading enterprises benefit from established market positions, new products and marketing practices, and cost effectiveness through permanent modernisation of production lines. Small enterprises may benefit from strategic niches, with product specificities and sometimes protected geographical indication (PGI).[99] The 2018 ANIA survey[100] indicates that small and medium-sized firms are more willing to use loans as a financing instrument than large-sized firms.

The situation is also difficult for start-ups who face high entry costs. These firms need to particularly invest in innovation to transform an idea into a commercial success. Given the nature of these new businesses, it is difficult for them to provide sufficient collateral and they do not possess any financial and accounting history. This is why venture capital and private equity are key financing sources for start-ups. The development phase of a new firm requires lending that is difficult to obtain because of the level of risk associated with a new

95 See https://agriculture.gouv.fr/gpi-soutenir-la-transformation-de-lagriculture-et-de-lagroalimentaire.

96 See https://www.economie.gouv.fr/pacte-productif.

97 ANIA, 2019, Quels enjeux de Compétitivité pour les IAA? Résultats de la consultation ANIA sur les facteurs de compétitivité auprès des syndicats métiers, ARIAS et entreprises alimentaires , Paris.

98 Interviews with ANIA and banks.

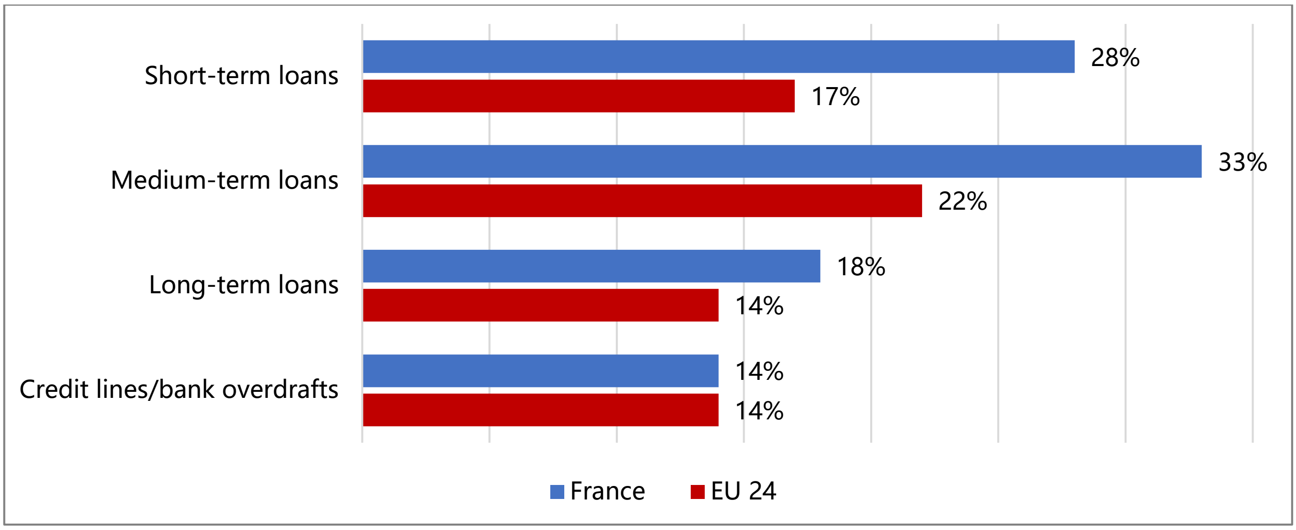
99 The protected geographical indications (PGI) identify an agricultural product, raw or processed, which quality, reputation or other characteristics are linked to its geographical origin'. See https://www.inao.gouv.fr/eng/Official-signs-identifying-quality-and-origin/Protected-Geographical-Indications.

100 Op. cited.

type of business. It may also lead to start-ups having their loan applications rejected or to them being discouraged from applying for a loan.

63% of the French agri-food enterprises applied for bank finance in 2018.[101] French agri-food enterprises show a higher demand for finance compared to the EU 24 average. Medium-term loans were the most used type of financing products (33%), followed by short-term loans (28%) (Figure 14).

Figure 14: French agri-food enterprises applying for finance in 2018, by financing product



Source: Agri-food survey.

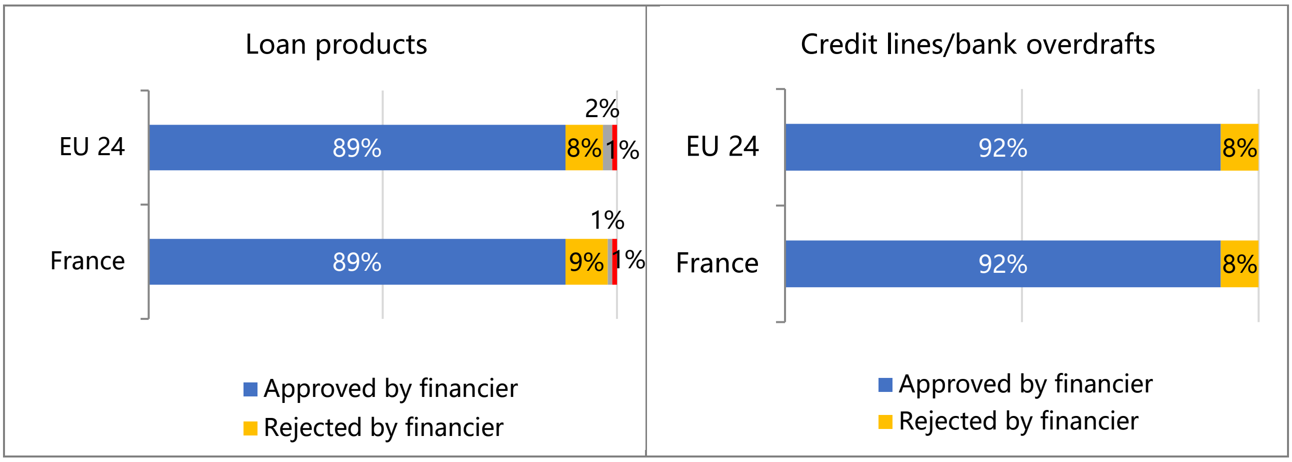
Loan applications for investments (across all maturities) have higher rejections rates than credit lines used for working capital. According to the Agri-food survey, rejection rates are estimated in the range of 8%-10%. Loan applications were mainly rejected by banks (9%), with agri-food companies themselves rarely rejecting a loan offer (1%). Credit lines applications were only rejected by banks (8%) (Figure 15). These rejection rates are comparable with EU 24 figures. In addition, they are similar to the results of the quarterly SAFE survey performed in France on access to credit by manufacturing firms.[102] 11% of the applications made for investment loans were rejected by the financier, while the percentage was slightly lower for credit lines and overdrafts (8%). These results are also aligned with Banque de France, which reported that 89% of SMEs had their application totally or largely approved in 2019.[103]

101 Agri-food survey, 2019.

102 European Central bank, 2018, Survey on the Access to Finance of Enterprises (SAFE), https://ec.europa.eu/docsroom/documents/32767.

103 https://www.banque-france.fr/statistiques/credit/credit/acces-des-entreprises-au-credit.

Figure 15*:* Results from loans applications in the French agri-food sector in 2018



Source: Agri-food survey.

The high level of risk associated with a business and a lack of credit history are the main reasons for rejection, according to French agri-food firms. According to the Agri-food survey, and confirmed by the interviews with banks, loan applications are mainly rejected due to business risk that is considered too high (54%) and because of a lack of credit history (41%). These are both much rates compared to the EU 24 (41% and 22%, respectively) (Figure 16). While a lack of credit history in general is a concern for new businesses, business risk is more associated with a lack of 'good' credit history, according to banks.

Low margins in the sector increase risk and limit access to credit. Because gross margins of the sector are low, the risks associated with businesses is high. This is especially the case for SMEs that do not benefit from collective quality schemes, such as the Protected Geographical Indications.[104] Although the overall debt ratio (Table 12) of the sector is not excessive (40%), lower profitability represents a significant constraint to firms' access to finance.

Table 12: Assets and liabilities in the food and beverage sectors in France, 2016

Sectors	Total assets (EUR million)	Total liabilities (EUR million)	Short-term liabilities (EUR million)	Medium and long-term liabilities (EUR million)	Liabilities to assets ratio (%)
Food products	164 763	67 209	33 681	33 528	40.8%
Beverages	49 043	18 020	9 077	8 943	36.7%
Total	213 806	85 229	42 758	42 471	39.9%

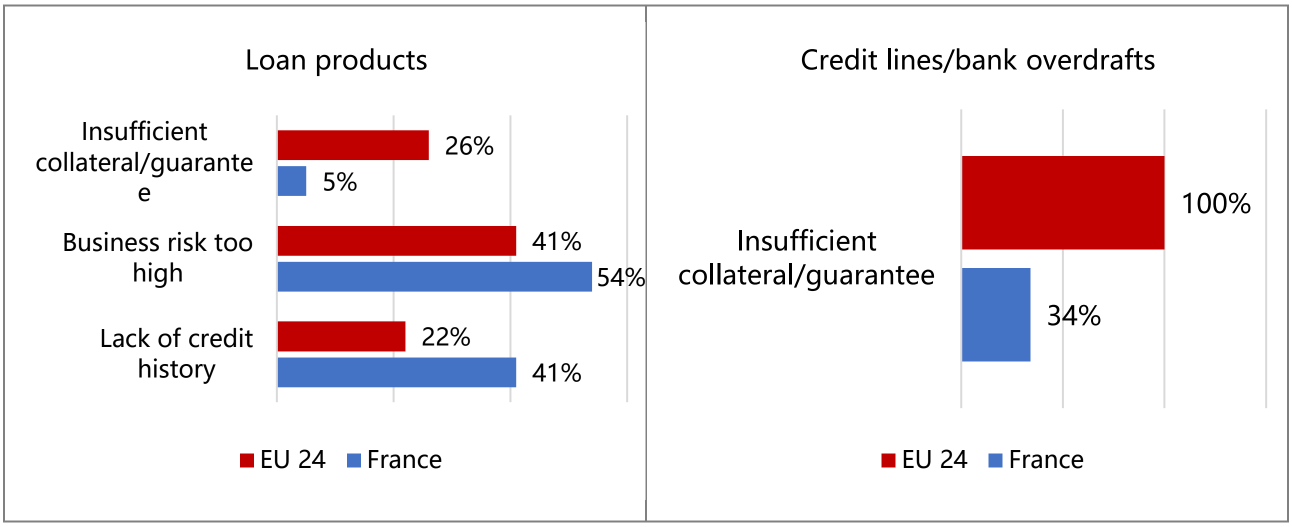
Source: Insee, Esane, 2016, own calculations.

104 Protected Geographical Indications emphasises the relationship between the specific geographic region and the name of the product, where a particular quality, reputation or other characteristic is essentially attributable to its geographical origin https://ec.europa.eu/info/food-farming-fisheries/food-safety-and-quality/certification/quality-labels/quality-schemes-explained_en.

Market power from the retail industry and price deflation[105] has caused the financial performance of agri-food firms to decline. This has limited their capacity to finance investments using bank loans.[106] Overall, the performance of the sector is still positive, as it is the leading manufacturing sector in the country. However, the French agri-food industry has been put under pressure by price deflation and increasing competition from the retail industry.[107] These two factors generated a loss to the sector of EUR 6 billion over the past six years. The profit margins of the food sector decreased from 43% to 34% between 2007 and 2018, while the margin of the whole manufacturing sector was stable at 36%. Therefore, the financial results of food enterprises have reduced, limiting their capacity to finance investments using both their own-funding and bank loans.

A lack of collateral contributes to applications being rejected, particularly for credit lines and bank overdrafts (Figure 16). With regards to loan applications for investments, 5% of French enterprises responded in the Agri-food survey that a lack of collateral was the primary reason why loans are rejected. Interviews confirmed that start-ups are more often troubled by a lack of collateral and/or guarantee. This issue is also related to the high percentage of mainly small and medium-sized family firms in this sector that have limited equity.[108]

Figure 16: Reasons for loans rejection in the agri-food sector in 2018



Source: Agri-food survey.

Own funds remain the most important source of finance. According to the Agri-food survey, 63% of enterprises relied on self-financing capacity to meet their financial needs in 2018 (Figure 17). However, this percentage is lower than the EU 24 average of 76%. According to the ANIA survey (2019), small and medium-sized firms are less able to use internal sources (52%, compared to 71% for large-sized enterprises). Additionally, 37% of the enterprises considered medium-term loans as an important source of finance (compared to the EU 24 average of 27%), while short-term loans and long-term loans were considered important by 30% and 29% of firms, respectively.

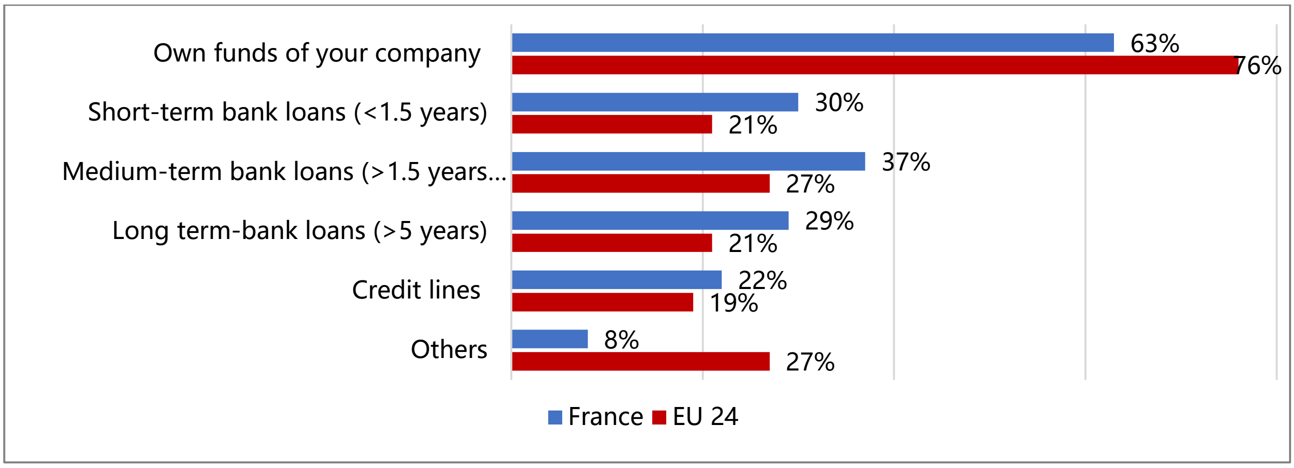
105 About 1% average deflation per year since 2013, and more for local products. For more information see: https://www.ania.net/wp-content/uploads/2018/08/Pr%C3%A9sentation_MP_Ete_2018.pdf.

106 Dahmani S. senior economist ANIA, 2019, Presentation to the Commission compétitivité – Agriculture et Transformation, Paris, July 17, 39 p.

107 17 000 industrial food firms compared to 4 major buying organisations in the retailing industry.

108 Highlighted in the ANIA survey of 150 food firms run in May and June 2018, ANIA, 2018, Performances économiques et financières du 1er secteur industriel français, Matinales ANIA/MEDEF.

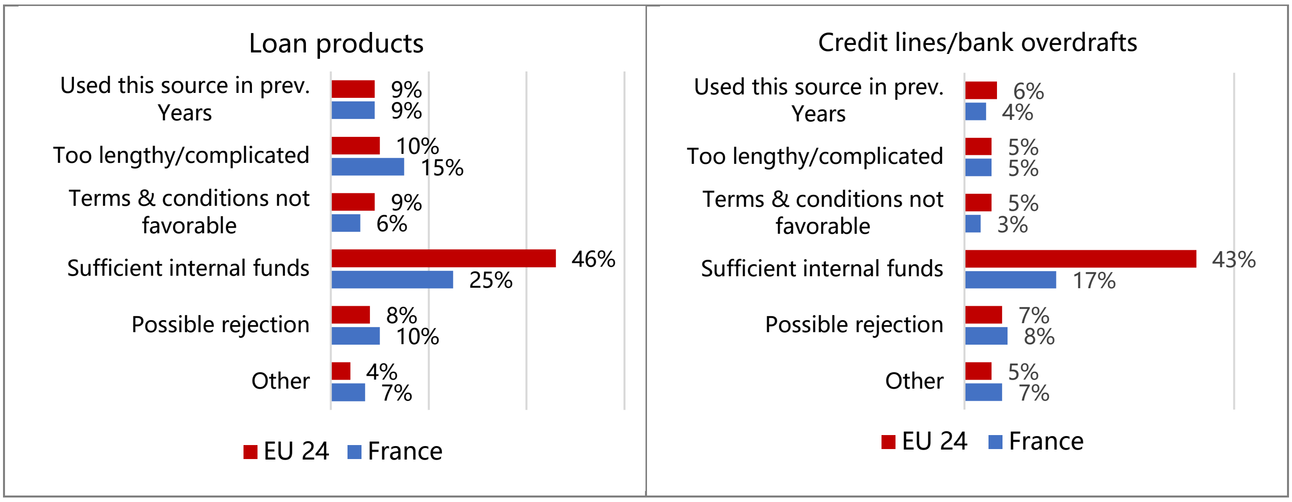
Figure 17: Most important financing instruments to agri-food enterprises in 2018



Source: Agri-food survey.

The share of discouraged enterprises in the French agri-food sector is higher overall than the EU 24 average.[109] In 2018, about 10% of enterprises did not apply for bank loans due to a fear of rejection, while 8% of were discouraged from applying for credit lines (Figure 18). The higher rates of non-applying enterprises because of fear of rejection is likely to be explained by the already mentioned low profitability characterising the food and beverage sectors (on average), which limits firms' capacity to borrow.

Figure 18: Reasons for not applying for loans in the agri-food sector in 2018



Source: Agri-food survey.

In addition, French agri-food enterprises consider the loan application process to be too complicated. 15% of enterprises were discouraged from applying for a loan because of application procedures that were considered too complex and time consuming. This share is higher than for the EU 24 average (10%). Still, the availability of sufficient own funds was one of the main reasons for not applying for finance. On average, around 25% of enterprises did not apply for the main financing products due to sufficient internal capacity (around 17% for credit lines).

109 Agri-food survey, 2019.

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

This section provides an overview of the financial environment in which the agri-food sector in France operates. It describes the main available financial products, including any currently operating financial instrument 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 French agri-food sector

- The financing of agri-food firms' assets is mainly provided through own funds or bank finance. The bond market is marginal and only concerns very large-sized firms.
- In 2019, total outstanding loans to the sector amounted to EUR 47.9 billion (Insee-Esane[110]).
- The main banks offer a large range of financial products to individual enterprises, such as credit, guarantees, insurances and factoring.
- Several banks supply credit for the agri-food sector, but Crédit Agricole is dominant due to its long history with the sector.
- Bpifrance is a public bank that provides a vast range of financial instruments to support all types of investment, development, equipment modernisation, innovation and exports.
- Banks, including Bpifrance, operate with the support of European and national public funds, and through regional programmes (e.g. Rural Development Programmes).
- Difficulties are highlighted by banks in relation to the finance of innovative projects (especially new entrants and start-ups) involving non-tangible assets, which cannot be used as collateral.
- The several public support measures available do not seem to reach a significant share of the small enterprises due to the minimum thresholds of investment volume required per project or the complexity of the administrative work.

3.3.1 Description of the financial environment and funding availability

3.3.1.1 Finance Providers

The key finance providers are summarised in Table 13 and described in more detail in this section.

Table 13: Financial providers of agri-food sectors in France

Type of organisation	Finance providers
Commercial banks	Crédit Agricole, Banque Populaire, Caisse d'Epargne, Natixis, Crédit coopératif, BNP Paribas, Société Générale, Crédit Mutuel-CIC Group and Crédit Mutuel Arkéa
Public institution	Bpifrance
Private sector funds and mutual guarantee associations	Unigrains, Sofiproteol, SIAGI, SOCAMA

Source: Interviews and banks websites, 2019.

110 Elaboration des Statistiques Annuelles d'Entreprises (ESANE), data base run by the Institute National de la Statistique et des Etudes Economiques (INSEE).

Commercial banks

The French banking industry[111] is composed of 250 banks, including leading European financial institutions.[112] Of these banks, 92 are cooperative banks. Most banks offer a full range of financial products, including for retail banking, specialist finance, corporate and investment banking, asset management and insurance. In particular, banks offer medium and long-term loans to the food and beverage sector,[113] as well as leasing for funding premises and equipment. They also provide short-term loans, credit lines for cash flow management, payment services and international support.

The leading banks serving the agri-food sector are Crédit Agricole, with an estimated market share of 35% due to its leading role in financing agricultural cooperatives, BPCE Group (Banque Populaire, Caisse d'Epargne, Natixis, Crédit coopératif), Banque Nationale de Paris (BNP Paribas), Société Générale, Crédit Mutuel-CIC Group and Crédit Mutuel Arkéa.

Numerous specialised credit institutions also provide services such as leasing, factoring, credit insurance, various guarantees and credit for specific assets.

Public bank

As indicated in the agriculture section, **Bpifrance is the main public institution supporting industrial and economic development, mainly towards small and medium-sized firms**. It plays an important role in providing banks and credit institutions with finance support aimed at boosting economic development and innovations. With regards to the agri-food sector, Bpifrance contributes to financing innovation[114] and supporting exports and internationalisation. Bpifrance's main competencies cover innovation and internationalisation support, loan guarantees, co-financing with the national bank network and equity investments.

Bpifrance also provides specialised loans, guarantees and insurance for export activities and grants to innovation as well as education programmes co-managed with several universities. Such programmes cover the 'accélérateurs d'entreprise' and are designed to boost value creation in small and medium-sized firms. A national accélérateur for agri-food firms has already been launched and regional programmes dedicated to the sector are currently being implemented.

Private sector funds and mutual guarantee associations

Unigrains[115] is an independent investor operating in the agri-food industry. It is majority owned by the French grain growers and mainly invests in private equity funds. Since its foundation in 1963, Unigrains mission has been to contribute to the development and strengthening of the agri-food and agri-industrial sectors. It also operates investments in venture capital funds to support its partner companies in boosting innovations and technologies.

111 See http://www.fbf.fr/fr/contexte-reglementaire-international/cadre-juridique/organisation-du-systeme-bancaire-francais.

112 Fédération Française de Banque, 2018. 'French banking sector'. Four French banks are ranked among the euro zone's top nine and four also rank among the world's twenty largest banks by balance sheet assets.

113 According to the Memo no six 'Financing companies' of the Fédération Bancaire Française (FBF), 40% of the corporate finance is raised through markets with bank lending accounting for 60% in 2017.

114 EUR 25.7 million for agriculture and food industry in 2006, EUR 5.4 million for the 'Projet Industriel d'Avenir' (PIAVE) on functional food products, EUR 5.0 million for a PIAVE on hard wheat, EUR 4.6 million on Partenariat Régional à l'Innovation (PIA), EUR 4.5 million on food projects from Fonds Unique Interministériel, EUR 2.9 million on digitalisation projects.

115 See https://www.unigrains.fr/.

In Europe, Unigrains was at the inception of *Céréa Partenaire* and is the sponsor of *Fondo Agroalimentare Italiano*. Outside of Europe, Unigrains invests in funds specialised within the agri-food and agri-industry sectors in growing regions. Its main areas of interventions include, fertilisers and plant protection products, animal genetics, agricultural machinery and seeds.

Sofiproteol[116] is a financing and development company (subsidiary of the *Avril Group*), supporting the agri-food sector by providing financing solutions that include medium-term loans, convertible loans and R&D or venture capital interventions. Its main areas of intervention are in the oil and protein sectors. Through its support, Sofiproteol pursues the following main objectives:

- financing the development and internationalisation of agriculture and agri-food businesses, and
- supporting innovation projects in the sector.

In 2019, AG2R La Mondiale with Eiffel Investment Group set up a EUR 50 million senior debt fund, named Agro Croissance. Its objective is to build a portfolio of approximately 20 to 25 SMEs with a loan value from EUR 1-2.5 million with 5-8 years maturity. It is a new pilot project originated by a group dedicated to health insurance and funding pensions.

SIAGI is a mutual guarantee company established in 1966 by the Chambers of Crafts (see section 2.3.1.1 for more information).

SOCAMA is a cooperative institution for credit guarantee, within the Banques Populaires Group (see section 2.3.1.1 for more information).

<u>EAFRD Support</u>

EAFRD grants under sub-measure 4.2 play an important role in the financing of the French agri-food sector. Nearly 4% (EUR 610 million) of the rural development public expenditure is programmed for investments in the food chain and in particular in the agri-food industry (including on-farm processing). Regions such as Auvergne Rhône-Alpes, Occitanie, Brittany, Nouvelle Aquitaine and Pays de la Loire are allocating between EUR 55-100 million to support the processing, storage and marketing of agricultural products in various sectors (dairy, beef, pork, poultry, wine, etc.). Environmentally sound and innovative investments are prioritised in the selection of projects. The RDP evaluations carried out in 2019 indicate the positive contribution of investment support to increasing the competitiveness and viability of agri-food enterprises, improving the quality of products, increasing the production volume and stimulating local production, processing and trade.

In addition to grants, the EAFRD is financing several regional guarantee funds on loans portfolios that facilitate the capacity of banks and institutions to finance investment projects (See section 2.3.1.2 for a description).

3.3.1.2 Financial Products

<u>Banks financing support</u>

Banks are providing access to finance through credit markets. The type of finance provided by banks are investment loans on a short, medium and long-term basis. In addition, banks are offering specific financial products such as:

- Loans backed by guarantees provided by institutions[117] such as Bpifrance, Siagi, or SOCAMA and by professional networks such as France Active or Initiative France.[118] For example, Bpifrance is providing various types of guarantees depending on the investment project. For the development of SMEs, it will provide a guarantee of up to between 40% to 70% of the bank loan, as well as innovation of 80%, up to

116 See https://www.sofiproteol.com/.

117 See https://www.bpifrance.fr/Recherche/(text)/garantie%20Bpi, http://www.siagi.com/la-siagi-et-lagriculture, and http://www.socama.com/.

118 These networks are specialised in microfinance.

EUR 300 000. SIAGI is providing guarantee to SMEs of up to 30% of the credit risk, from EUR 15 000 to EUR 600 000.

- Customised loans for innovation with different reimbursement schemes and triggers.
- Co-financing with Bpifrance of 'risky' investment projects, such as R&D and export market development (five to seven years maturity, one or two years of deferred payments). An equivalent equity increase is required.
- Advanced payments as pre-financing of the Crédit Impôt Recherche and Crédit Impôt Innovation, ex-post fiscal deductions for supporting innovation.

While only a limited number of agri-food enterprises, such as the very large ones, have access to the bond market, these large and international food firms are important in terms of investments in the sector.

Public financial instruments

Furthermore, approximately 140 public instruments for financing and/or supporting finance to firms exist in France. These include instruments for creation, development, export, recruitment, innovation, eco-development, tangible and non-tangible investments and transmission.[119] These instruments cover all types of requirements in relation to the life cycle of the firm, from start-ups or buy-ups, commercial development including internationalisation, product and process innovation, ecological development and cost efficiency.

Notably, more than 100 of these instruments are dedicated to supporting investments in tangible assets. The way to deal with all types of instruments with respect to investment profiles has been published by the French association of accountants with the support of numerous institutions (Banque de France, Fédération Française de Banques, Ordre des experts comptables, Ministère Economie et Finance, Bpifrance, etc.).[120]

Various public instruments are also available to support the finance of tangible and non-tangible assets, namely:[121]

- A tax reduction on investment in innovative projects, called *Crédit Impôts Recherche* (CIR) and *Crédit d'Impôts Innovation* (CII), whereby a firm can deduct 30% of its research expenses from tax on an annual benefit.
- Increased depreciation rates for specific investments.
- Fiscal incentives for start-ups.
- Specific grants provided by national programmes of development, such as the Programme Cap'Tronic, which is dedicated to the digitalisation of the production process as a follow up of the previous[122] Programme TIC & PME, or the Programme Nouvelle France Industrielle, which provides grants to invest in new food products, waste management, water and energy efficiency and biotechnologies.
- Loans provided directly by Bpifrance and co-financed with other banks.
- Grants and loans provided by French regions on their own funds or, more generally, through national funds (with Bpifrance) and European funds (in particular EAFRD, ERDF and EMFF).

119 http://www.aides-entreprises.fr.

120 Collectif auteurs, 2020, Le Guide du routard du financement d'entreprises, Ed. Hachette, Paris, 164 p., https://www.experts-comptables.fr/sites/default/files/assets/files/PDF%20FINANCEMENT%20ROUTARD%20pls.pdf.

121 Fédération Française de Banque, 2017, Le financement de l'immatériel , Mémo no 7, Paris, 16 p.

122 https://www.economie.gouv.fr/presentation-nouvelle-france-industrielle.

3.3.2 Analysis of the supply of finance

In 2018, the total outstanding loan volume to the French agri-food sector was an estimated EUR 48 billion.[123] It has been growing steadily since 2012. Information gathered during interviews and crossed-referenced with public statistics (INSEE-Esane) and private databases (*Observatoire financier des IAA*) suggest that **60% of new loans are investments loans and 40% are working capital loans**. Statistics of Banque de France provide the percentage of loans per size for the manufacturing sector, but not for the food and beverage sector. Although small-sized firms are more prevalent in the food sector than in the manufacturing sector, available statistics on manufacturing give an overview of the size of loans for investment and working capital (Table 15). More than half of investment loans (59%) and two-thirds of working capital loans are smaller than EUR 50 000. Furthermore, the most frequent loan size category (investment or working capital loans) is the smallest one (less than EUR 25 000).

Table 14: Outstanding loan volume of the agri-food sector in France, 2012-2018, EUR million

Outstanding Loan value	2012	2013	2014	2015	2016	2017	2018
Manufacturing (Banque de France)	145 873	140 682	142 422	150 085	149 909	167 816	169 118
Agri-food (INSEE)	27 616	28 641	40 511	41 059	42 472	47 545	47 914

Source: Banque de France for 2017 and 2018 – INSEE for 2012 to 2016.

According to the latest survey by Banque de France,[124] the average interest rate for long term loans for financing equipment (9 years maturity on average) has decreased from 2% in 2015 to 1.35% in 2019. In the first half of 2019, the interest rates charged on 50% of the loans for equipment ranged from 0.9%-1.5%. 84% of long-term loans had fixed interest rates. The interest rates did not significantly vary across loan sizes: it was approximately 1.29% for loans of up to EUR 25 000 and 1.43% for loans above EUR 1 million.

With regards to the loans targeting working capital needs (two years maturity on average), the average interest rate has been quite stable over the last five years, at approximately 1.6%[125] (Table 7). In the first half of 2019, 50% of the loans for working capital were characterised by an average interest rate of between 1.2% and 2.6%. One-third (33%) of short-term loans had fixed interest rates. When looking at the interest rate variation across loan size, the statistics suggest that a slight decrease has occurred, from 2.65% for loans of up to EUR 25 000 to 1.52% for loans above EUR 1 million.

In early 2019, bank overdrafts were charging an average interest rate of 2.65%. However, a significant variation is observed across loan sizes, whereby the interest rates decreased from 7.45% for credit up to EUR 25 000, to 1.39% for credit above EUR 1 million.

123 While Banque de France publishes only the outstanding loan volume for the whole manufacturing sector, INSEE provides detailed data on the outstanding loan volume for the agri-food sector. However, INSEE only provides credible data until 2016. Therefore, the outstanding loan volume for 2017 and 2018 is estimated by apportioning the loan volume of the whole manufacturing sector (Table 14), as provided by Banque de France. The estimated EUR 47.9 billion outstanding loan volume for the agri-food sector was confirmed during interviews with banks. It must be noted that the amount also includes EUR 4.2 billion of bonds.

124 Banque de France, 2019.

125 Banque de France, 2019.

Table 15: Size distribution of new loans in the manufacturing sector in France

Loan value	Capital investment	Working capital
Less than EUR 25 000	38%	39%
EUR 25 000 to 50 000	21%	27%
EUR 50 000 to 100 000	16%	12%
EUR 100 000 to 250 000	13%	9%
EUR 250 000 to 500 000	6%	5%
EUR 500 000 to 1 000 000	3%	2%
More than EUR 1 000 000	3%	6%
All sizes	100%	100%

Source: Banque de France, 2019.

Although the supply of finance has grown steadily since 2012, financial institutions face constraints in financing innovative projects. Investments targeting innovation are usually related to non-tangible assets that are not accompanied by traditional collateral to pledge or mortgage. Digitalised processes are an example of non-tangible assets, as well as artificial intelligence-based tools, connected objects, marketing and quality assessment platforms.[126] The main difficulty arises from the fact that the cost related to this kind of projects is usually considered as an expense in the income statement and, therefore, requires specific analysis and new loan assessment methodologies by banks.

In addition, according to ANIA,[127] the public support to innovation is lower on average for the food and beverage sector compared to the manufacturing sector (Table 16). Furthermore, public support (fiscal rebates, grants, loans, guarantees) is not reaching a significant share of small enterprises due to thresholds of investment volume required per project or the complexity of administrative work. 75% of large-sized firms are supported by public instruments, compared to only 28% for small-sized firms. As a result, innovation in small-sized firms is mainly financed through private funding (own funding, venture capital, or business angels).

Table 16: Impact of the public support to innovation

Sector and firm size	% of innovative firms with public support (fiscal rebates, grants, loans, guarantees)
Manufacturing sector	60.6
Food and beverage	50.3
From 10 to 4 employees	28.0
From 20 to 249 employees	42.4
Above 250 employees	75.1

Source: ANIA, 2019.

126 Banque de France, Observatoire du financement des entreprises, 2017, Financement des entreprises et nouveaux défis de la transformation numérique , Paris, 110 p. https://mediateur-credit.banque-france.fr/financement-des-entreprises-et-nouveaux-defis-de-la-transformation-numerique.

127 ANIA, 2014, L'innovation, un enjeu de compétitivité essentiel pour les entreprises agroalimentaires , Paris.

In 2018, in order to support the development of small and medium food firms in creating more added value, the Ministry of Agriculture and Bpifrance set up an '*SME incubator*' that is managed by ANIA. Its objective is to enhance the global quality of food products, as demanded by consumers and citizens, to increase the benefit of current know-how on food production, to create sound and safe local supply chains, to develop export capacities and to increase all forms of digitalisation. Given the expected positive impacts stemming from this national initiative, Bpifrance is currently considering implementing similar instruments at the regional level.[128]

128 The Brittany Region launched its first « incubator» for food firms in 2020, called Boost'AGRO. In addition to coaching to identify growth levers, managers can attend group training sessions on, for example, new economic models, the competitiveness of the production apparatus or new trends in the agri-food industry. At the time of writing, agri-food SMEs were invited to apply to the program (see first call for applications: https://www.bretagne-economique.com/actualites/accelerateur-boostagro-bretagne-les-pme-peuvent-candidater).

3.4 Financing gap in the agri-food sector

This section presents an estimate of the financing gap in the French food and beverage sector. The financing gap is calculated in combining information from the agri-food survey.

Key elements of the financing gap in the French agri-food sector
• The financing gap in the agri-food sector is estimated at EUR 2.9 billion. • The most constrained segment is the long-term financing of small enterprises (88% of the gap), whilst financing issues also affect medium-sized enterprises. • The key financing constraint of the food and beverage sector is low operational profitability. This is due to a squeeze between agricultural prices and the market power of the purchasing agencies of the French retailing industry. This results in low repayment capacity for agri-food firms and increases banks' risk perception of the sector. • A lack of sufficient own equity and collateral due to the financial structure of small and medium-sized enterprises, as well as start-ups, explains part of the financing gap that is due to loan rejections and discouragement. A lack of credit history is another constraint affecting start-ups.

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.

Financing gap = Number of firms X percentage of firms that are both financially viable and have unmet demand X average loan volume

All the calculations are based on the results of the Agri-food survey for French 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[129]. As explained in section 3.2, 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.

The financing gap for the French agri-food sector is estimated at EUR 2.9 billion. Approximately 88% of the gap concerns small-sized firms (Table 17). In terms of financial products, 62% of the gap relates to long-term loans (Figure 19). Although medium-sized enterprises account for only around 8% of the financing gap, they may also face important constraints based on the feedback of qualified stakeholders interviewed.

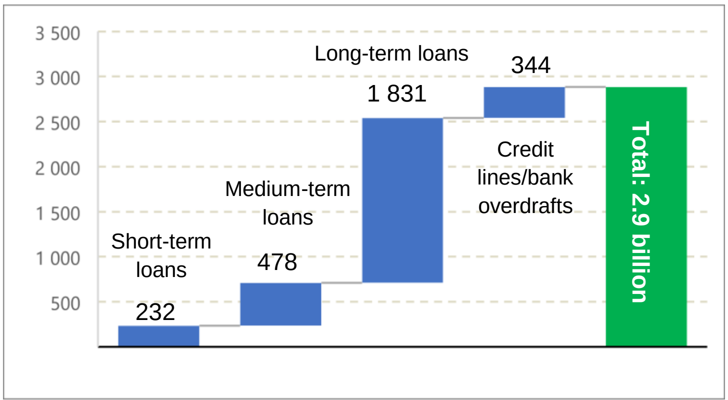
129 The financing gap presented in this section is different from the total unmet demand presented in section 3.2.2. In the quantification of the total unmet demand, all the enterprises in the population applying for finance are considered independent from their economic viability.

Table 17: Financing gap by firm size and product in French agri-food sector in 2018, EUR million

	Total	Short-term Loans	Medium-term Loans	Long-term Loans	Credit lines/bank overdrafts
Small-sized firms	**2 530.2**	197.8	419.5	1 611.7	301.2
Medium-sized firms	**244.6**	27.2	39.7	149.7	27.9
Large-sized firms	**110.5**	7.1	18.4	70.0	15.0
Total	**2 885.3**	**232.1**	**477.6**	**1 831.4**	**344.2**

Source: Calculation based the Agri-food survey.

Figure 19: Financing gap by product in the French food and beverage sectors in 2018



Source: Calculations based on the Agri-food survey.

Overall, the supply of finance to the French agri-food sector is relatively unconstrained. The only difficulty highlighted by banks was in relation to the financing of innovative projects involving non-tangible assets that cannot be used as collateral.

The gap mainly concerns enterprises with low profitability who experience difficulties in terms of production efficiency and innovation. They include small-sized enterprises and start-ups, but also medium-sized enterprises, which currently represent approximately 30% of French agri-food firms. In addition to low profitability, a lack of sufficient collateral might also constrain access to finance for this group of enterprises.

Start-ups experience the most difficulties in accessing finance. They need to invest in innovation and digitalisation to be competitive in the sector. Their main constraints are a lack of credit history and insufficient levels of available collateral, alongside non-tangible aspects such as the presence of market outlets.

At the same time, large enterprises have access to the bond market and benefit from good risk scoring. Consequently, they can finance themselves via several sources of financing and are therefore relatively unconstrained in their access to finance.

The several public support measures available do not seem to reach a significant share of small enterprises, due to the thresholds of investment volume required per project or the complexity of the administrative work required to support applications.

3.5 Conclusions

Investment in the French agri-food sector grew by 35% over the 2014-2017 period, reaching an estimated EUR 13-14 billion in 2018. However, the sector is mainly characterised by small and micro-sized enterprises which struggle to invest at levels that would maintain productivity growth and competitiveness. Medium and large-sized industrial enterprises account for 77% of investment in the sector.

The demand for finance in the export-oriented agri-food sector is driven by (i) capacity expansion, (ii) production efficiency, and (iii) compliance with regulatory standards.

This study estimates a financing gap in the French agri-food sector of EUR 2.9 billion, which is mainly attributable to small-scale enterprises and long-term loans. Although medium-sized enterprises account for around 8% of the financing gap, they may also face important constraints based on the feedback of qualified stakeholders interviewed. The gap is mainly driven by the following constraints in access to finance:

- high business risk related to low profitability;
- insufficient collateral or guarantees, especially for small and medium-sized enterprises; and
- a lack of credit history for start-ups.

Several banks and other financial institutions with experience serving the agri-food sector operate in the market. The main difficulty highlighted by banks was in relation to the financing of innovative projects involving non-tangible assets that cannot be used as collateral.

While an extensive set of public support tools are already available, based on feedback from qualified interviewees, these do not reach a significant share of small enterprises. This is due to the thresholds of investment volume required per project and the complexity of the administrative work required to support applications.

Based on the analysis conducted for this study, and constraints and the market gap identified, the **following recommendations** could be taken into account:

- Despite the diverse offer of public support, a significant financing gap has been identified within the sector in relation to start-ups and small and medium-sized enterprises. The available public support tools seem to lack a specific focus on the agri-food sector and investments in non-tangible assets for innovation. Therefore, an assessment of the current instruments, including on their ability to address the financial constraints of these target groups, investments in non-tangible assets and the agri-food sector more generally, could be helpful for taking corrective action and in making these instruments more efficient.
- The possibilities offered by the new EAFRD legal framework, including the easier combination of financial instruments and grant support, as well as the provision of stand-alone working capital finance, might offer the opportunity to design a dedicated financial instrument (in the form of a guarantee or risk-sharing loan fund) with an increased focus on the above mentioned segments. It will be beneficial if new initiatives related to financial instruments are in synergy with successfully running schemes at the national level, or if they continue their implementation. The presence of a single CAP Strategic Plan 2021-2027 may facilitate the set-up and outreach of any financial instrument supported by it.
- The possibility to set-up a pilot equity or quasi-equity financial instrument that supports start-ups with innovative projects might also be analysed.

ANNEX

A.1 References

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A.2 Stakeholders interviewed

Type of Organisation	Name of Institution	Address and Website
Government	Ministry of Agriculture, Direction Générale de la performance économique et environnementale des entreprises, Bureau des risques	https://agriculture.gouv.fr/
Bank	Crédit Agricole	https://www.credit-agricole.fr/
Bank	Crédit Agricole, caisse régionale Ille et Vilaine	https://www.ca-illeetvilaine.fr/
Bank	Crédit Mutuel	https://www.creditmutuel.fr/
National accounting network for agriculture	CERFRANCE	www.cerfrance.fr
NGO	Coop de France Métiers du grain	https://www.lacooperationagricole.coop/fr/notre-organisation
NGO	Coop de France Vignerons Coopérateurs	www.vignerons-cooperateurs.coop
NGO	Chambre d'Agriculture	https://deux-sevres.chambre-agriculture.fr/
Farmers union for Young Farmers	Jeunes Agriculteurs (JA)	http://www.jeunes-agriculteurs.fr/
Sectorial farmers union (sugar beet)	Confédération Générale Planteurs de Betteraves	https://www.cgb.fr/
Sectorial farmers union (grains)	Association Générale des Producteurs de Blé	http://www.agpb.com/
Sectorial farmers union (grains)	Association Générale des Producteurs de Blé	http://www.agpb.com/
Grain Cooperative	Nat'Up	http://natup.coop/le-groupe-cooperatif/
Sectorial farmers union (milk)	Fédération Nationale des Producteurs de Lait	http://www.fnpl.fr/
Food firm (4th group in France)	Agromousquetaires	https://www.mousquetaires.com/nos-filiales/agromousquetaires/
Pig producer group	Evel'Up	https://www.evelup.fr/
Meat processor	Gâtine Viandes	http://www.sva-jeanroze.com/

Type of Organisation	Name of Institution	Address and Website
Technical institute	IFIP-Institut du porc	https://ifip.asso.fr/fr
NGO wine	Vigneron Indépendant	https://www.vigneron-independant.com/
Industry association	Association Nationale des Industries Alimentaires	https://www.ania.net/
Bank	Crédit Agricole SA, Pôle Agroalimentaire	https://www.credit-agricole.fr/
Financial institution	Bpifrance Ouest	https://www.bpifrance.fr/
Managing Authority	Service Développement économique, Région Bretagne	https://www.bretagne.bzh/
Managing Authority	Service de l'agriculture et de l'agroalimentaire, Région Bretagne	https://www.bretagne.bzh/

A.3 Methodology for financing 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**:

1. $\boldsymbol{Rejected}$ **credit applications** include applications that are rejected by banks (or other credit organisations) and offered from banks but turned down by the farmers/firms.
2. **The share of** $\boldsymbol{Viable}$ **firms is measured by** the share of total firms that have a non-negative turnover growth[130] 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).
3. **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 (see 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.

<u>Step1: Ratio of viable farms with unmet demand for finance</u>

$\boldsymbol{Rejection\ Rate^{Viable}}$ **:** 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:

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

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

Step 2: Number of farms rejected or discouraged

$\boldsymbol{N.of\ Farms\ in\ unmet\ demand_{ij}^{Viable}}$: 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.

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

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

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

for $i = Small, Medium, Large$

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

Step 3: Standard Loan Application Size

$\boldsymbol{Application\ Size_{ij}}$: 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 parity 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.

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

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 France, Table 18 and Table 19 report the elements used in the calculation of the financing gap for the agricultural and agri-food sectors, respectively.

Table 18: Elements for the calculation of the financing gap in the French agriculture sector

		Short-term Loans	Medium-term Loans	Long-term Loans	Credit lines/bank overdrafts
Lower bound: farms with a non-negative turnover growth and no cost increase	Share of respondents rejected by creditor or farmer	0.00%	0.00%	0.35%	0.00%
	Share of respondents that have not applied because of possible rejection	0.21%	0.62%	1.23%	1.23%
	Total (sum of rejected and discouraged)	***0.21%***	***0.62%***	***1.58%***	***1.23%***
Upper bound: farms with a non-negative turnover growth	Share of respondents rejected by creditor or farmer	0.00%	0.00%	0.35%	0.00%
	Share of respondents that have not applied because of possible rejection	0.58%	0.99%	1.60%	1.60%
	Total (sum of rejected and discouraged)	***0.58%***	***0.99%***	***1.96%***	***1.60%***
Total unmet demand: all farms	Share of respondents rejected by creditor or farmer	0.78%	0.21%	0.56%	0.00%
	Share of respondents that have not applied because of possible rejection	4.17%	4.78%	5.60%	4.30%
	Total (sum of rejected and discouraged)	***4.95%***	***4.99%***	***6.16%***	***4.30%***
Farms with constrained access to finance, **lower bound**	Small-sized farms	231	693	1 784	1 386
	Medium-sized farms	324	973	2 505	1 946
	Large-sized farms	203	610	1 570	1 220
Farms with constrained access to finance, **upper bound**	Small-sized farms	650	1 112	2 203	1 805
	Medium-sized farms	913	1 562	3 093	2 535
	Large-sized farms	572	979	1 939	1 589
Standard loan application size	Small-sized farms	EUR 18 903	EUR 45 854	EUR 126 461	EUR 17 066
	Medium-sized farms	EUR 23 950	EUR 43 583	EUR 137 316	EUR 18 930
	Large-sized farms	EUR 70 638	EUR 110 910	EUR 247 251	EUR 100 819

Source: fi-compass survey.

Table 19: Elements used for the calculation of the financing gap in the French agri-food sector

		Short-term Loans	Medium-term Loans	Long-term Loans	Credit lines/bank overdrafts
Firms with a non-negative turnover growth	Share of respondents rejected by creditor or firmer	0.95%	0.95%	0.95%	0.00%
	Share of respondents that have not applied because of possible rejection	2.86%	4.96%	7.05%	5.14%
	Total (sum of rejected and discouraged)	***3.81%***	***5.91%***	***8.00%***	***5.14%***
Total unmet demand: all firms	Share of respondents rejected by creditor or firmer	1.91%	0.95%	2.37%	0.00%
	Share of respondents that have not applied because of possible rejection	4.00%	7.82%	9.91%	7.05%
	Total (sum of rejected and discouraged)	***5.91%***	***8.77%***	***12.28%***	***7.05%***
Firms with constrained access to finance, lower bound	Small-sized firms	556	1 667	1 667	1 111
	Medium-sized firms	10	29	29	19
	Large-sized firms	3	8	8	5
Firms with constrained access to finance, upper bound	Small-sized firms	223	3 444	4 664	2 997
	Medium-sized firms	39	60	81	52
	Large-sized firms	10	16	21	14
Standard loan application size	Small-sized firms	EUR 147 447	EUR 186 155	EUR 543 253	EUR 199 582
	Medium-sized firms	EUR 1 836 140	EUR 959 525	EUR 2 325 708	EUR 815 185
	Large-sized firms	EUR 7 782 723	EUR 4 384 409	EUR 29 271 393	EUR 19 662 078

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 20 reports the number of respondents by Member State.

Table 20: *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 questionnaire for each Member State. The minimum sample size obtained varied per country mirroring the differences in the size of the sector. Table **21** reports the sample size per country.

Table 21: 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.

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