



Gap analysis for small and medium-sized enterprises financing in the European Union

Final report

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Glossary, acronyms and definition of terms

Expression	Explanation		
AMIF	Asylum and Migration Fund		
BA(s)	Business Angel(s)		
BMVI	Border Management and Visa Instrument		
CEE	Central and Eastern Europe		
CESEE	Central, Eastern and South-Eastern Europe		
CF	Cohesion Fund		
COSME	Competitiveness of enterprises and small and medium-sized enterprises		
CPR	Common Provisions Regulation Regulation (EU) No 1303/2013 of the European Parliament and of the Council of 17 December 2013 laying down common provisions on the European Regional Development Fund, the European Social Fund, the Cohesion Fund, the European Agricultural Fund for Rural Development and the European Maritime and Fisheries Fund and laying down general provisions on the European Regional Development Fund, the European Social Fund, the Cohesion Fund and the European Maritime and Fisheries Fund and repealing Council Regulation (EC) No 1083/2006		
DG REGIO	Directorate-General for Regional and Urban Policy of the EC		
EAFRD	European Agricultural Fund for Rural Development		
EC	European Commission		
ECA	European Court of Auditors		
EFSI	European Fund for Strategic Investments		
EIB	European Investment Bank		
EIF	European Investment Fund		
EMFF	European Maritime and Fisheries Fund		
ERDF	European Regional Development Fund		
ESAF	EIF SME Access to Finance		
ESF(+)	European Social Fund (Plus)		
ESIF / ESI Funds	European Structural and Investment Funds		



Expression	Explanation
EU	European Union
FA	Funding Agreement
FCF	Free Cash-Flows
Financial instrument(s)	Financial instruments are "Union measures of financial support provided on a complementary basis from the budget to address one or more specific policy objectives of the Union. Such instruments may take the form of equity or quasi-equity investments, loans or guarantees, or other risk-sharing instruments, and may, where appropriate, be combined with grants" (Article 2(p) Financial Regulation; Article 37(7)(8)(9) CPR).
FoF	Fund of Funds
FSB	Financial Stability Board
GAFMA	Guidelines for SME Access to Finance Market Assessments
GDP	Gross Domestic Product
ICT	Information and Communication Technologies
Innovation	New or significantly improved product (good or service) introduced to the market, or the introduction within an enterprise of a new or significantly improved process ¹
IPO	Initial Public Offering
ISF	Internal Security Fund
MFI(s)	Microfinance Institution(s)
MS	Member State(s)
NPB(s) / NPI(s) / NPBI(s)	National Promotional Bank(s) National Promotional Institution(s) According to Article 2(3) of Regulation (EU) No 2015/1017 (the EFSI Regulation), 'National Promotional Banks or Institutions' means legal entities carrying out financial activities on a professional basis which are given a mandate by a Member State or a Member State's entity at central, regional or local level, to carry out development or promotional activities.
NPL(s)	Non-Performing Loans
OECD	Organisation for Economic Co-operation and Development
PaaS	Product as a Service
Programme(s)	Operational Programme(s)

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The Measurement of Scientific and Technological Activities. Oslo Manual. A joint publication of OECD and Eurostat, 2005. Available here: https://circabc.europa.eu/sd/a/ba5badd1-f834-4677-81f0-a1a6138c7f1a/Oslo%20Manual.pdf.



Expression	Explanation
PE	Private Equity
R&D	Research and Development 'Research and Development' is a term covering three activities: (i) basic research, (ii) applied research, and (iii) experimental development ² . 'Basic research' comprises experimental work undertaken to acquire new knowledge. 'Applied research' is directed towards a specific practical objective. 'Experimental development' is systematic work drawing from existing knowledge gained from research activities.
RDI	Research, Development and Innovation
RMA	EIF's Research & Market Analysis (team)
SBA	Small Business Act
SME(s)	Small and medium-sized enterprise(s)
SMEI	The EU SME Initiative
TA	Technical Assistance
TRL(s)	Technology Readiness Levels
VC	Venture Capital
YEI	Youth Employment Initiative

Glossary of Statistical terms. Research and development. OECD. Last updated on June 1, 2013. Available here: https://stats.oecd.org/glossary/detail.asp?ID=3111.



1. Introduction

1.1 Context, objectives and scope of the gap analysis study

1.1.1 Context

Financial instruments³ are a delivery mechanism for the European Structural and Investment Funds' (ESIF or ESI Funds)⁴ programmes (Programmes) delivered under shared management⁵.

Financial instruments related to small and medium-sized enterprises⁶ (**SME**) **financing are often seen as an 'entry door' to ESIF-supported financial instruments**⁷. At the end of 2018, 24 Member States (MS) have used financial instruments as a type of operation to support SME financing using their Programmes' budgets⁸. This represents a total amount of EUR 17.1bn; making, until now, SME financing the most popular policy area supported by financial instruments during the 2014-2020 programming period. On average, MS have decided to allocate to financial instruments 23.7% of their Programmes' budget for SME financing⁹.

At a time of budgetary constraints, of an expected decrease of ESI Funds' available for many MS, and when also considering the need to 'do more with less' during the 2021-2027 programming period, financial instruments will need to play a greater role during this next programming period. In this context, the Directorate-General for Regional and Urban Policy (DG REGIO) of the European Commission (EC) aims to facilitate further the uptake of financial instruments in all policy areas, including SME financing.

1.1.2 Objectives and scope

In the context of supporting the further use of ERDF funding under financial instruments for SME financing, this gap analysis study ('the study') conducted by *fi-compass*¹⁰ aims (i) to provide DG REGIO with insights on

Financial instruments are here considered "Union measures of financial support provided on a complementary basis from the budget to address one or more specific policy objectives of the Union [under] the form of equity or quasi-equity investments, loans or guarantees, or other risk-sharing instruments" (Article 2(p) of the Financial Regulation; Article 37(7)(8)(9) of the Common Provisions Regulation, CPR). Regulation (EU) No 1303/2013 of the European Parliament and of the Council of 17 December 2013 laying down common provisions on the European Regional Development Fund, the European Social Fund, the Cohesion Fund, the Cohesion Fund and laying down general provisions on the European Regional Development Fund, the European Social Fund, the Cohesion Fund and the European Maritime and Fisheries Fund and repealing Council Regulation (EC) No 1083/2006.

In the 2014-2020 programming period, the ESIF include five Funds: the European Regional Development Fund (ERDF), the European Social Fund (ESF), the Cohesion Fund (CF), the European Agricultural Fund for Rural Development (EAFRD), and the European Maritime and Fisheries Fund (EMFF). Three of these ESI Funds (ERDF, ESF and Cohesion Fund) are formally part of EU Cohesion Policy.

⁵ Financial instruments are meant to be implemented to support projects which are expected to be economically viable with a revenue generating or a cost saving capacity in order to ensure repayment of investment. Their main objective is to address market failures or suboptimal investment situations evidenced in *ex-ante* assessments performed by managing authorities.

⁶ As defined in the Commission Recommendation 2003/261/EC of 6 May 2003 concerning the definition of micro, small and medium-sized enterprises.

⁷ fi-compass, Stock-taking study on financial instruments by sector, 2019.

EC data using the financial data that MS regularly send to the EC for monitoring / reporting purposes in relation to the implementation of their Programmes with the cut-off date of 31 December 2018. This data is consistent with the data used in the EC report 'Financial instruments under the European Structural and Investment Funds – Summaries of the data'. See Chapter 2 and Annex 3 with national information.

⁹ See Chapter 2 for more detailed elements on this situation.

fi-compass is the platform for advisory services on financial instruments under ESI Funds. fi-compass is provided by the European Commission in partnership with the European Investment Bank (EIB). It is designed to support ESIF managing authorities and other



financing gaps and market failures related to SME financing at MS level as well as (ii) to highlight the potential of financial instruments for SME financing. This gap analysis study covers two sub-sectors within SME financing; (i) debt financing; and (ii) equity financing.

With these elements in mind, the overarching objective of this study is to help unlock the greater use of financial instruments for SME financing in the 2021-2027 programming period.

This study consists of two activities. **Activity 1** aims to identify financing gaps and market failures for SME financing at MS level for (i) debt financing and (ii) equity financing. The results of this Activity 1 are detailed in the present report.

Activity 2 aims to analyse in depth the SME financing market of seven MS, selected for more detailed review by DG REGIO and *fi-compass*. In this respect, Country Fiches will be produced and will provide (i) a summary of the potential for financial instruments using ERDF financing for SME support in the 2021-2027 programming period, (ii) MS-specific recommendations for SME financing, as well as (iii) discussion elements for DG REGIO in the context of the development of the Programmes for the 2021-2027 programming period. The template of these Country Fiches is provided in Annex 4. The Country Fiches will be separate documents and are not included in the present report.

1.2 Methodology

Two types of analyses were conducted for the study in order to analyse financing gaps and markets failures in SME financing: (i) a quantitative data analysis, and (ii) a qualitative analysis.

1.2.1 Quantitative data analysis

The quantitative data analysis consisted of using available data on SME financing produced by various sources in order to compute financing gaps at MS level for (i) debt financing and (ii) equity financing. Various data have been used and several analyses have been performed in that context. They are detailed in Chapter 3 and in Annex 1.

1.2.2 Qualitative data analysis

In addition and in parallel to the quantitative data analysis, several qualitative data analysis tools have been used:

- A **literature review** on European SMEs' access to finance was performed. It is presented in Chapter 2 and the detailed bibliography of the study is provided in Annex 7.
- A number of **interviews** were performed, to date with EIB Group¹¹ experts in SME financing. The detailed list of interviewees is indicated in Annex 5 and the interview guide used to perform these interviews is provided in Annex 6. During Activity 2, these first interviews will be supplemented with feedback and inputs from the EC' Geographical Desks, as well as with interviews with relevant stakeholders from the seven countries examined in more detail.

interested parties, by providing practical know-how and learning tools on financial instruments. These include 'how-to' manuals, factsheets and case study publications, as well as face-to-face training seminars, networking events, and video information. More background information about *fi-compass* may be found on the website: https://www.fi-compass.eu/about-fi-compass.

The EIB Group is composed of the European Investment Bank (EIB) and the European Investment Fund (EIF). More information on each institution is available here: http://www.eib.org (for the EIB), and http://www.eif.org (for the EIF).



1.3 Structure of the report

This study is structured as follows:

- Chapter 2 provides an overview of the SMEs' access to finance in the European Union (EU), principally leveraging the literature review presented in Section 1.2.2 above;
- Chapter 3 presents the gap assessments of SME financing in the EU, and more particularly:
 - The gap assessment for debt financing (Section 3.2); and
 - The gap assessment for equity financing (Section 3.3).
- Chapter 4 provides conclusions to the study; and
- Chapter 5 presents proposed next steps, following this gap analysis study.



Overview of SMEs' access to finance in the European Union

SMEs represent over 99% of the businesses in the EU¹². It is of paramount importance to support their growth and innovation. According to the European Commission's 'Annual Report on European SMEs 2017/2018'¹³, SMEs' contribution to growth in value added and employment exceeded what would have been expected on the basis of their relative importance in the economy.

2.1 SMEs' needs and use of external financing

The financing needs of SMEs change throughout their lifecycle and depend on various factors such as their age, their Technology Readiness Level (TRL), their growth strategy and their capacity of absorption. Depending on these factors, grants, debt or equity financing can be the more relevant type of funding. It is overall to be noted that this use of various types of external financing indicate that (i) SMEs in the EU have insufficient internal sources to meet their funding needs¹⁴ and (ii) these SMEs wish to develop and grow (otherwise, they would not seek financing). According to the Organisation for Economic Co-operation and Development (OECD), credit guarantees remain the most wide-spread instrument for supporting SMEs' access to finance ¹⁵ and are particularly relevant in those countries where a network of local or sectoral guarantee institutions is well established¹⁶.

Moreover, according to the latest Survey on Access to Finance of Enterprises (SAFE)¹⁷ of the European Central Bank (ECB), the most relevant / used sources of external financing for SMEs over the past years are: (i) credit line or overdraft, (ii) leasing and hire purchase, (iii) bank loans, and (iv) trade credit. In general, SMEs prefer debt financing over equity financing; either because of lack of knowledge about the characteristics of the equity financing market (*i.e.* purposes, actors, and financial products for instance), or because of very limited / immature equity markets in their geographies (leading to limited interest from the SMEs or relevance for them).

Despite the fact that only one tenth of SMEs currently consider equity financing relevant for their businesses, both Venture Capital (VC) and Private Equity (PE) financing are important components of the SME market. This is particularly true for high-risk start-ups and high growth companies that require significant long-term investments and which do not produce immediate Free Cash-Flows (FCF) which would allow servicing debt payments nor require the need for collateral.

Please see: https://ec.europa.eu/growth/smes/business-friendly-environment/performance-review en, for all documentation from the Directorate-General for Internal Market, Industry, Entrepreneurship and SMEs (DG GROW) on the SME performance Review. This documentation provides extensive information on SMEs' access to finance difficulties and challenges, including at a Member State level

¹³ EC, Directorate-General for Internal Market, Industry, Entrepreneurship and SMEs (DG GROW), *Annual Report on European SMEs* 2017/2018, The 10th anniversary of the Small Business Act, SME Performance Review 2017/2018, November 2018.

EC, SWD(2018) 320 final, Commission Staff Working Document (SWD), Impact Assessment, Accompanying the document Proposal for a regulation of the European Parliament and of the Council establishing the Programme for single market, competitiveness of enterprises, including small and medium-sized enterprises, and European statistics and repealing Regulations (EU) No 99/2013, (EU) No 1287/2013, (EU) No 254/2014, (EU) No 258/2014, (EU) No 652/2014 and (EU) No 2017/826 (COM(2018) 441 final) – (SEC(2018) 294 final), 2018. COSME+'s impact assessment. Please see: https://ec.europa.eu/commission/sites/beta-political/files/budget-may2018-single-market-swd1 en.pdf.

¹⁵ OECD, SME and Entrepreneurship Outlook, 2019.

OECD, SME and Entrepreneurship Financing: The Role of Credit Guarantee Schemes and Mutual Guarantee Societies in supporting finance for small and medium-sized enterprises, 2013.

¹⁷ EC, DG GROW, Survey on the access to finance of enterprises (SAFE), Analytical Report 2018, November 2018.



There has been a good progress in implementing the Small Business Act (SBA) recommendations under 'access to finance' in all MS over the past 10 years¹⁸. However, while there are many new financing programmes / possibilities, only few are focussed to further boost VC investments and unfortunately, EU's capital markets are still very fragmented and underdeveloped.

Finally, in recent years, new alternative financing instruments, such as crowdfunding, have emerged and gained popularity in SME financing. According to the European Investment Fund (EIF), crowdfunding plays an important role in enhancing access to finance for SMEs as they serve as direct financing source for SMEs across the entire growth spectrum¹⁹. This has been evidenced also by established financiers, such as Microfinance Institutions (MFIs), Business Angels (BAs) and VC funds.

2.2 SMEs' challenges in access to finance

One of the most important issues SMEs are facing is the difficulty accessing finance. As per the latest EIF's working paper on the 'European Small Business Finance Outlook'²⁰, one in four SME still reports severe difficulties in accessing finance, pointing to significant structural credit market failures and preventing SMEs' financing demands being satisfied.

It is a well-known fact, that SMEs face greater financing obstacles than larger enterprises²¹. In general, SMEs enjoy less favourable conditions of finance and if financing is offered at all, it is often offered at unreasonable conditions in terms of interest rates applied, maturities, repayment terms and collateral required. Moreover, especially newly established and smaller SMEs or those requiring rather small financing are faced with a structural financing gap due to information asymmetries, lack of credit history and disproportionate transaction costs²². Obtaining financing in the form of debt or equity is still a hurdle for starting up and its growth and scale-up, in particular in MS with less developed markets²³.

In its different publications, the EC confirms the fact that these market failures, common in the whole EU, hinder the start-up and growth of SMEs. SMEs rarely have the internal funds they need, and consequently seek external financing. This market environment results in an access to finance gap for SMEs and it differs from country to country. Moreover, this lack of financing provided by the market may have negative externalities that hinder economic growth, job creation, innovation, the pursuit of long-term objectives, the emergence of more sustainable economic models, and the resilience of the financial system.

¹⁸ EC, DG GROW, Annual Report on European SMEs 2017/2018, The 10th anniversary of the Small Business Act, SME Performance Review 2017/2018, November 2018.

¹⁹ EIF RMA, Kraemer-Eis, Botsari, Gvetadze, Lang and Torfs, Working Paper 2019/57, European Small Business Finance Outlook, 2019.

²⁰ EIF RMA, Kraemer-Eis, Botsari, Gvetadze, Lang and Torfs, Working Paper 2019/57, European Small Business Finance Outlook, 2019.

Ex-ante assessments performed by managing authorities before designing, setting up and implementing financial instruments using ERDF funding during the 2014-2020 programming period have identified this particularity of SMEs at local levels (please see: https://www.fi-compass.eu/resources/ex-ante-assessment-summary). The SME Performance Review conducted by DG GROW as well as the EIF's European Small Business Finance Outlook also illustrate this situation (in particular when comparing SMEs' access to finance with mid-caps' and larger companies' access to finance).

²² EC, SWD(2018) 314 final, Commission Staff Working Document (SWD), Impact Assessment accompanying the document Proposal for a Regulation of the European Parliament and of the Council establishing the InvestEU Programme, {COM(2018) 439 final} – {SEC(2018) 293 final} – {SWD(2018) 316 final}, 2018.

²³ Chapter 3 hereafter provides complementary elements on this matter when considering the debt and equity financing gaps in various markets.



2.3 Role and use of financial instruments

The main objective of financial instruments is to address the above-mentioned market failures and suboptimal investment situations related to the supply of financing to SMEs that private financiers are not always able or willing to address. Financial instruments can support various segments of SMEs to unleash the full potential of competitiveness and contribution to the EU's economic growth and innovation. Carefully designed financial instruments have positive macroeconomic effects, meaning that the positive stimulating effects on the economy outweigh the possible defaults.

Among the different sources of public and/or private financing, ESIF funding is a key source for many financial instruments addressing SMEs in the EU. As illustrated in the table below, 24 MS have developed ESIF-supported financial instruments for SME financing, representing 23.7% of the Programmes' resources available for SME support²⁴. When considering other EU-wide studies²⁵, this makes SME financing, the sector that is the most supported by financial instruments using ESIF. That is why SME financing may be considered as an 'entry door' to ESIF-supported financial instruments.

While 13 MS have used more than 25% of their available Programme resources for SME support as financial instruments in the 2014-2020 programming period (as of 31 December 2018), four MS (Cyprus, Denmark, Ireland, and Luxembourg) have not developed such financial instruments²⁶. The nominal amounts devoted to financial instruments and their percentage as available Programmes' resources highly vary from one MS to the other. For instance, the two MS that have devoted the highest nominal amounts to the sector (Poland and Italy with each more than EUR 2bn) represent together 32.3% (almost one third) of the total Programmes' amount devoted to ESIF-supported financial instruments for SME financing in the EU. In the same vein, the six MS that have devoted more than EUR 1bn of their available Programme resources for SME support as financial instruments [Poland, Italy, the United Kingdom (UK), Hungary, Germany and Spain] represent 70.2% of the total amount. Following this, the UK and Spain appear as exceptions since they have both used a large nominal and relative amount of ESIF Programme funding as financial instruments for SME financing during the 2014-2020 programming period.

All MS do not consequently consider the use of ESIF funding under financial instruments in the same way; and if some devote either large nominal or relative amounts, room for further use appears, either for 'general SME financing' or for specific support in the 'Research, Development and Innovation' sector or in other niche sectors of SME financing²⁷.

Table 1: Overview of	support from E	SIF Programmes to	the SME sector by	v Member State	(includina r	national co-fi	inancina)

Member State	SME Support (EUR)	Out of which used under financial instruments (EUR)	Percentage of financial instruments (as of 31 Dec. 2018)
United Kingdom	4,498,369,438	1,867,127,066	41.5%
Spain	3,371,563,809	1,337,499,214	39.7%
Greece	2,080,986,311	723,300,000	34.8%
Slovenia	729,677,021	242,704,556	33.3%
Croatia	1,191,437,626	393,010,373	33.0%

The methodology used to build this table is presented in Annex 3. Also, even if resources for 'Territorial Cooperation – Interreg' are covering several MS, they are presented in the table since they may be used under the form of financial instruments.

²⁵ Please see: fi-compass, Stock-taking study on financial instruments by sector, 2019.

These four Member States have not developed ESIF-supported financial instruments in any sector. Please see: *fi-compass, Stock-taking study on financial instruments by sector,* 2019.

²⁷ Please see: fi-compass, Stock-taking study on financial instruments by sector, 2019.



Member State	SME Support (EUR)	Out of which used under financial instruments (EUR)	Percentage of financial instruments (as of 31 Dec. 2018)
Belgium	895,699,794	265,985,066	29.7%
Italy	8,770,619,240	2,600,036,541	29.6%
Latvia	428,068,320	125,459,527	29.3%
Estonia	593,011,661	168,700,000	28.4%
Bulgaria	1,136,302,419	316,000,000	27.8%
Hungary	6,490,081,641	1,797,797,792	27.7%
Sweden	1,031,757,353	275,327,771	26.7%
Poland	11,561,653,595	2,927,631,294	25.3%
Lithuania	803,962,594	199,080,000	24.8%
Slovakia	1,144,937,021	266,967,273	23.3%
Germany	6,359,879,360	1,476,669,160	23.2%
Romania	1,711,007,088	368,120,000	21.5%
Czechia	2,493,995,715	446,543,783	17.9%
Malta	85,645,605	15,000,000	17.5%
France	3,319,361,354	499,292,182	15.0%
Netherlands	756,025,110	110,373,269	14.6%
Portugal	8,474,690,641	630,479,962	7.4%
Finland	668,832,206	41,065,899	6.1%
Austria	1,105,181,744	9,000,000	0.8%
Cyprus	89,393,134	-	0.0%
Denmark	253,291,897	-	0.0%
Ireland	219,552,384	-	0.0%
Luxembourg	10,815,077	-	0.0%
Territorial Cooperation – Interreg	1,748,991,498	-	0.0%
EU-28 total	72,024,790,655	17,103,170,728	23.7%

Source: Dataset on financial information provided by Member States to the European Commission for monitoring purposes, broken down by category of intervention, DG REGIO analysis, cut-off date 31 December 2018, 2019.



3. Gap assessments of SME financing in the European Union

3.1 General objective and rationale

The quantification of financing gaps aims at defining the amounts of financing products that should have been provided to projects / SMEs that are considered viable from a financial point of view, if the market conditions were optimal (implying that the supply of financing would cover the demand and that these projects / SMEs would have been able to reimburse a loan or would have generate value with the equity financing obtained). In the context of this gap analysis study, the following estimates have been necessary to define:

- The number of SMEs that have difficulties in seeking finance (debt financing on the one hand, and equity financing on the other hand), while they 'should' not have such difficulties. Later in this study, these SMEs are considered as 'viable but unsuccessful' (for debt finance) or 'unsuccessful' (for equity finance)²⁸; and
- The average amount of financing that these SMEs would have requested / received if they would have completed and filed their application with the financier, or if they had obtained their financing fully or with 'acceptable' conditions (for each type of financing).

Since these estimations imply a certain number of assumptions (see Annex 1 for the detailed presentation of the methodology used)²⁹, they are mainly meant to provide a view of the magnitude of the additional financing that should be provided / accessible in a given market, notably with the support of financial instruments (the latter mobilising ESI Funds or not). These estimations mainly provide a magnitude of the overall access to finance of SMEs since they include and synthesise elements on:

- Banks' appetite to take risk given the current market situation (for the debt gap assessment); considering that several banking markets in the EU are still recovering from the financial and economic crisis of 2008-2009 (see Annex 2);
- The maturity and depth of the equity market (for the equity gap assessment), in terms of *i.a.* (i) the number of VC and PE funds investing in a given country, (ii) the risk strategy of these funds, and (iii) the knowledge of the equity market by the SMEs, as well as the capacity / willingness of the latter to request for such financing (considering the potential dilution of management and control implied by equity financing that SMEs may fear or reject);
- The interactions between various markets (for both the debt and equity gap assessments), since the debt financing gap may indicate a lack of microfinance in some countries (because MFIs do not exist or are not present all over the territory), or the equity financing gap may indicate a very low risk appetite from banks (and so indicating that receiving equity financing may be easier than debt); these situations indicate that all markets are interconnected, need to be considered comprehensively, and vary from one MS to the other; as well as

As explained in Annex 1, the 'financial viability' of the SMEs is considered as a non-negative turnover growth in the past six months. Since SMEs may look for equity financing while not being 'financially viable from a turnover point of view' (either because they are start-ups with no revenue yet or just created without a financial history), the assumption on the 'financial viability' (used for the computation of the debt financing gap) was not considered in the methodology developed for the equity financing gap. The latter hence only consider the unsuccessful SMEs which have looked for equity financing.

As a disclaimer and as explained in Annex 1, a variety of approaches exists to quantify financing gaps. None of them can be considered as perfect. That is why it is advisable to combine different methodologies. This difficulty of defining quantification methodologies is mentioned by the European Court of Auditors (ECA) when assessing the centrally managed EU interventions for VC. The ECA observes that the quantification of a funding gap for VC financing was not comprehensive, despite *ex-ante* evaluations and impact assessments. This was mainly due to the lack of reliable data. This lack of data leads to the development of assumptions, the use of surveys (like the ECB's SAFE survey) and the performance of qualitative analyses.



• The SMEs' financial literacy and capacity to request financing appropriately (e.g. drafting business plans, knowing the appropriate financial products and market stakeholders considering their actual corporate needs, and/or the availability of Technical Assistance (TA) for SMEs and their capacity to access it).

Following this, the financing gaps computed and presented in the following tables only provide one aspect of the SMEs' access to finance. These gaps need to be (i) complemented by qualitative elements (mainly provided *via* stakeholders' interviews and desk research) and (ii) put in perspective (*i.e.* in time series and *vis-à-vis* other studies).

In the meantime and this is one of the key elements to consider for this gap analysis study, it indicates where publicly-supported financial instruments may add the most value in terms of countries and sectors (*i.e.* debt and/or equity markets).

3.2 Gap assessment for debt financing

In accordance with the methodology detailed in Annex 1, the following financing gaps for debt financing gaps have been computed for 2018. They provide an annual indication of the debt financing gaps that may be considered as stable over a certain number of years (about five), if no unpredictable and exceptional event occurs.

As a general element, it is to be mentioned that, even if "SME financing sources are diverse across jurisdictions [countries], due in part to differences in financial systems and macroeconomic conditions as well as firm structures and characteristics, [...] bank lending remains the prevalent form of external SME financing in almost all jurisdictions. [Also,] there is significant heterogeneity across jurisdictions in the types of banks that provide SME financing, largely reflecting the structure of the banking sector"³⁰. Following, this, even if differences in the banking sector exist between countries, key characteristics are similar and, in all MS, bank financing is 'the' key external financing source for SMEs.

The table below indicates that the debt financing gap at the EU level is of EUR 176.7bn, considering that 4.3% of the EU SMEs may be considered as viable but unsuccessful in accessing debt finance. In the same vein, the EC's impact assessment for the COSME+ programme for the 2021-2027 programming period has also identified an important debt financing gap (following a different approach) and underlines that this gap still remains significant "despite considerable interventions at Member State level and through central EU guarantees for SMEs"³¹. Indeed, as indicated by EIF in its 'European Small Business Finance Outlook', "insufficient public support for external financing markets continues to worry European SMEs"³².

As observable hereafter, there are important differences between countries but trends may be considered:

• The biggest debt gaps (in absolute terms) are present in the largest countries but not only (Italy, France, Germany, Greece, Spain, the UK, and the Netherlands have debt financing gaps above EUR 10bn). This is logical from an economic and methodological point of view (since the number of SMEs is used to compute the gaps). It however indicates that the gap in **Italy** is probably inflated by the even larger number of SMEs

Financial Stability Board, Evaluation of the effects of financial regulatory reforms on Small and Medium-sized Enterprise (SME) financing, 29 November 2019 (p.1).

Please see: https://www.fsb.org/wp-content/uploads/P291119-1.pdf.

EC, SWD(2018) 320 final, Commission Staff Working Document (SWD), COSME+'s impact assessment, 2018.
Please see: https://ec.europa.eu/commission/sites/beta-political/files/budget-may2018-single-market-swd1_en.pdf.
It is to be noted that many MS (if not all) have financial instruments supporting SME financing and that the EU has set up centrally-managed instruments (such as COSME and InnovFin) to favour SME financing all over the EU.

EIF RMA, Kraemer-Eis, Botsari, Gvetadze, Lang and Torfs, Working Paper 2019/57, European Small Business Finance Outlook, 2019 (p.iii).



and especially micro-enterprises of less than 9 employees in the country (3.7m SMEs in comparison to 2.7m in **France** and **Spain**, and 2.5m in **Germany**) and so merits attention. A large gap is also defined for **Greece.** In the case of Greece, this large debt financing gap is partially due to the extensive portion of micro-enterprises in the economy (96.5% of the enterprises in Greece have between zero and nine employees³³), but also due to the special conditions that occurred in the financial system in the last ten years, which practically led to the almost complete inability of banks to finance the economy.

Following this, the smallest debt financing gaps (in absolute terms) are present in smaller countries (Luxembourg, Malta, Latvia, Slovenia and Lithuania have debt financing gaps below EUR 200m). This is despite very different proportions of the percentage of viable but unsuccessful SMEs (from 1.0% in Luxembourg to 7.2% in Malta) or various average loan sizes to be potentially provided to SMEs in these countries (from EUR 162k in in Latvia to EUR 311k in Luxembourg).

Following this, it is important for each MS to consider various factors to analyse the debt financing gaps: (i) the total number of SMEs in the country, (ii) the percentage of viable but unsuccessful SMEs in each country and (iii) the average loan size to be requested by each SME. In that perspective, certain comments may be made for a few countries:

- The case of **Greece** is quite particular in the EU. Following the economic and financial crisis of 2008-2009 and the public debt crisis that followed the next years, the banking sector in Greece has been heavily restructured and this process is still on-going. Although the situation is gradually improving, it is important to mention that, in Greece, for many years, the banks have in general struggled to finance the economy and especially SMEs. This was due, on the one hand, to the inability of the banks to raise funds from international markets (using bonds as collateral) while, on the other hand, restrictions imposed by successive governments on the auctioning of real estate assets held by the banks as collateral, which made it impossible for the banks to extend new financing. In addition to the banking deadlock, the capital controls imposed in 2015 to avoid a run on bank savings imposed restrictions on the existing savings of companies (and citizens) further limiting their access to liquidity. Under these conditions, it may be assumed that the financing gap estimated in this study actually under-reports the reality of the lack of financing for SMEs in Greece.
- **Poland** also offers an interesting perspective since the percentage of viable but unsuccessful SMEs is quite low (1.6%, which is the second lowest after Luxembourg and its 1.0%). This may be partly explained by the fact that SMEs are financed by commercial banks, but also by cooperative banks and non-bank entities such as savings unions and foundations. This indicates that some SMEs that are not considered financially viable by the banking system may receive finance from these other actors.
- From a comparative perspective, **Czechia** presents an interesting situation in comparison with other countries in the region. Its percentage of viable but unsuccessful SMEs is comparatively higher (3.2% in comparison with 2.9% in Hungary, 2.5% in Slovakia, and 1.6% in Poland) and its total number of SMEs in comparatively higher with more than 1m of SMEs (fewer than in Poland, but about twice the number of Hungary and Slovakia). This comparatively large number of SMEs may partly explain the larger debt financing gap.

Finally, it is to be mentioned that according to ECB's bank lending survey data (*i.e.* providing a supply side perspective) and as indicated in 2019 EIF's 'European Small Business Finance Outlook'³⁴, the SME debt financing gap in the euro area has grown in all but five countries in the first half of 2019. Indeed, **Dutch** and **Portuguese** banks have experienced a situation of economic expansion, where loan demand has increased and credit conditions have loosened. In **Estonia** and **France**, banks reported a minor decrease in loan demand at constant

Eurostat, NACE Rev. 2 'Total business economy; repair of computers, personal and household goods; except financial and insurance activities', 'Enterprises – Number', Latest update 19 August 2019, extracted on 26 August 2019.

³⁴ EIF RMA, Kraemer-Eis, Botsari, Gvetadze, Lang and Torfs, Working Paper 2019/57, European Small Business Finance Outlook, 2019.



credit standards, which had for consequence to shrink the financing gap. In **Lithuania**, the situation remained unchanged. In all other countries, the SME debt financing gaps appear to have increased over the first half of 2019. In **Austria**, **Germany**, and **Ireland**, banks have tightened the supply of credit to SMEs while facing increased loan demand. Banks in **Cyprus**, **Greece**, **Italy**, **Malta**, **Latvia**, **Luxembourg**, and **Slovakia** have kept credit standards constant, but reported an increase in loan demand. In **Belgium**, **Slovenia** and **Spain**, loan demand reportedly stayed constant, but credit standards were tightened (especially in Belgium). All these cases imply an increase in the debt financing gaps, from a supply side perspective of banks.



Table 2: Debt financing gaps at Member State level for 2018

Member State	Number of SMEs (2017)	Percentage of viable SMEs with difficulties in seeking debt finance (2018)	Number of SMEs with difficulties (2018)	Average loan size in EUR (2018)	Debt Gap (mEUR)
Austria	332,755	3.15%	10,495	243,834	2,559
Belgium	619,414	3.99%	24,705	172,648	4,265
Bulgaria	337,100	4.75%	16,011	128,289	2,054
Croatia	149,324	7.49%	11,184	218,168	2,440
Cyprus	51,069	9.38%	4,789	266,777	1,278
Czechia	1,030,143	3.19%	32,830	218,684	7,179
Denmark	208,149	4.50%	9,372	293,703	2,753
Estonia	75,788	5.74%	4,352	328,390	1,429
Finland	235,761	3.09%	7,292	253,027	1,845
France	2,783,993	5.26%	146,505	144,045	21,103
Germany	2,504,371	3.79%	94,798	214,464	20,331
Greece	829,677	10.41%	86,380 165,015		14,254
Hungary	570,005	2.93%	16,729	165,193	2,764
Ireland	254,929	7.06%	18,004	156,877	2,824
Italy	3,746,109	4.75%	178,032	139,665	24,865
Latvia	112,867	4.16%	4,691	162,046	760
Lithuania	202,522	3.61%	7,320	167,189	1,224
Luxembourg	33,999	1.00%	339	311,635	106
Malta	28,615	7.62%	2,181	240,332	524
Netherlands	1,160,015	3.62%	42,042	284,535	11,962
Poland	1,692,695	1.56%	26,474	159,843	4,232
Portugal	868,079	6.71%	58,272	129,431	7,542
Romania	480,791	2.24%	10,771	230,379	2,481
Slovakia	471,691	2.49%	11,761	179,293	2,109
Slovenia	142,153	4.32%	6,137	185,189	1,137
Spain	2,661,427	4.08%	108,646	129,198	14,037
Sweden	722,041	3.98%	28,744	191,142	5,494
United Kingdom	2,137,005	3.16%	67,511	202,834	13,694
EU-28 total	24,483,495	4.25%	1,040,671	169,751	176,655

Source: fi-compass, EIF's RMA, based on Eurostat 2017, ECB SAFE 2018 wave 19, 2019.



Based on the debt financing gaps computed before, a comparison of these gaps with the Gross Domestic Product (GDP) of each MS has been performed³⁵. This comparison (*i.e.* in other words, the percentage of the debt financing gap *as per* the GDP of each MS) is presented below.

As observable below, the share of the debt financing gap within the GDP of some MS may provide some elements of analysis of their SMEs' access to finance:

- As presented before, **Greece** presents a specific situation considering its banking sector and its SMEs' access to finance. With the largest share of SMEs having difficulties to access finance and among the largest debt financing gaps, the country also presents the largest 'debt financing gap to GDP ratio'.
- **Cyprus, Estonia, Croatia,** and **Malta**, whose 'debt financing gap to GDP ratios' are above 4.0% also present interesting features since their percentages of viable but unsuccessful SMEs are between 5.7% (in Estonia) and 9.4% (in Cyprus), indicating particular difficulties for the SMEs in these countries (especially in comparison with the EU average of 4.3%) (see Table 2 above).

It may also be interesting to review the seven MS selected by DG REGIO and *fi-compass* for further analysis in the Country Fiches (in decreasing order when considering their 'debt financing gap to GDP ratios'):

- Portugal has the highest ratio (3.7%) that may be explained by a quite high percentage of viable but unsuccessful SMEs (6.7%), a relatively high number of SMEs (868k) and a lower GDP in comparison to Czechia (EUR 204m compared to EUR 208m). It also to be noted that Portugal is among the seven MS selected by DG REGIO as the second country where debt financing is considered, according to SAFE, as relevant for SMEs (for 57% of SMEs, in comparison with 64% of SMEs in France). In the meantime, the average loan size to be sought by Portuguese SMEs is below the EU average (EUR 129k compare to EUR 170k), which indicates that the Portuguese economy remains in a recovery phase when considering the 2008-2009 crisis. It is to be noted that Portugal and Bulgaria present the same 'debt financing gap to GDP ratio' (3.7%) but present very different characteristics: Bulgaria has 4.8% of viable but unsuccessful SMEs (so much fewer than in Portugal), but 2.6 times fewer SMEs than in Portugal, and a GDP which is 3.7 times smaller than Portugal. This indicates that any ratio needs to be explained individually.
- Czechia is the second MS of the seven selected countries with the highest 'debt financing gap to GDP ratio' (3.5%). This can be explained by a large number of SMEs (more than 1m, as observed above) and a high average loan size to be sought by SMEs (EUR 219k). This is however to be mitigated by a rather low percentage of viable but unsuccessful SMEs (3.2% in comparison to 4.3% at EU level). These different elements and a very similar (despite a bit higher) GDP to Portugal leads to a similar gap to GDP ratio.
- Slovakia is the third country of the seven selected countries with the highest 'debt financing gap to GDP ratio' (2.3%). This may be mainly explained in comparison with Czechia. Slovakia presents a percentage of viable but unsuccessful SMEs much lower than Czechia (2.5% instead of 3.2%), a smaller nominal number of SMEs (472k compared to 1.0m in Czechia) and a smaller average loan to be requested (EUR 179k compared to EUR 219k in Czechia). This indicates two different SME markets and potentially various needs from SMEs to be addressed, and consequently different potential supports to be provided *via* financial instruments.
- The Netherlands presents a comparatively quite high 'debt financing gap to GDP ratio' (1.5%) in comparison with the EU average (1.1%). This counter-intuitive situation results from the fact that the Netherlands is a country with a well-structured banking sector with some of the largest EU-wide banking groups, and with banks willing to address new and consequently perceived as more risky sectors (such

The most updated Eurostat data on the number of SMEs in the EU is from 2017.

Eurostat, NACE Rev. 2 'Total business economy; repair of computers, personal and household goods; except financial and insurance activities', 'Enterprises – Number', Latest update 19 August 2019, extracted on 26 August 2019. Some data is missing from Eurostat and so they are taken from the Annual Report on European SMEs 2017/2018 produced by DG GROW.

In parallel, the most updated Eurostat data on GDP is from 2018. The number of SMEs between 2017 and 2018 is considered stable.



as circular economy, one of the new sectors currently high on the agenda of the Dutch banks). It is even supported by a quite low percentage of viable but unsuccessful SMEs (3.6% compared to 4.3% at EU level). It may however by explained by a quite high average loan size (EUR 285k) and a high number of SMEs in the country (1.2m). This indicates that the debt financing gap in the Netherlands may be considered for high tickets (*i.e.* the gap results from SMEs' requests for investment loans of quite large amounts indicating an appetite to develop and grow) and for specific SMEs that are currently unsuccessful (probably due to a perceived higher risk profile by the banks).

- The 'debt financing gap to GDP ratio' in **Romania** (1.2%) is very close to the EU average (1.1%). It mainly results from the high average loan size to be requested by SMEs (EUR 230k), while the percentage of viable but unsuccessful SMEs is the lowest of the seven countries selected (2.2%) and the number of SMEs (481k) is very similar to Slovakia (472k). This situation may be explained by quite low percentages in some answers in the SAFE survey with regards to loan financing (and used in the computation of the gap): (i) only 36% of the Romanian SMEs consider debt financing as relevant for them (the lowest percentage of the seven countries selected; while the EU average is of 47%), and (ii) only 11% of SMEs used loans in the past six months (which is the second lowest share after the Netherlands, 10%, and much lower than France, 25%, which is the highest of the seven, and while the EU average is at 17%). This indicates that even if the percentage of viable but unsuccessful SMEs is very low in Romania, the use of debt financing as external source of finance is not very common in the country.
- The first country whose 'debt financing gap to GDP ratio' is below the EU average is **France**, with 0.9%. This is despite the second largest debt financing gap (with EUR 21bn, after Italy at EUR 25bn), and a relatively high percentage of viable but unsuccessful SMEs (5.3% in comparison to 4.3% at EU level). Following this, the quite low gap to GDP ratio should not prevent consideration that some French SMEs still have difficulties in accessing debt finance and would benefit from financial instruments. This is especially true when considering that the average loan amount to be requested by the SMEs is EUR 144k, which is among the lowest in the EU. French SMEs may consequently have difficulties in accessing finance, even for comparatively low amounts.
- Austria is, among the seven MS selected, the country with the lowest 'debt financing gap to GDP ratio': 0.7%. It is also among the lowest ratios in the EU. This may principally be explained by the low percentage of viable but unsuccessful SMEs (3.2%), the limited number of SMEs in the country (333k, so the lowest of the seven countries selected) and a quite high GDP (EUR 386bn).

Even if the explanations behind the numbers presented in the table below need to be considered on a country-by-country basis, these elements indicate a potential use and value added of financial instruments for SMEs' debt financing in different EU countries:

• The structural difficulties or deficiencies of some banking markets (i.e. when the 'debt financing gap to GDP ratio' and/or when the percentage of viable but unsuccessful SMEs is/are particular higher than in other countries) may be supported by financial instruments that would help SMEs' access to finance at large, i.e. SMEs in all industrial sectors, from all sizes, and/or with all maturities and presenting all types of projects in terms of risk. This may be of relevance in countries where Non-Performing Loans (NPLs) are particularly high (i.e. where SMEs are not able to reimburse their loans given the current conditions of the latter, and consequently default). In addition, "there are significant differences among jurisdictions [countries] in the use and type of collateral for SME loans, with a prevalence of immovable assets such as real estate" in the use and type of collateral for SME loans, with a prevalence of immovable assets such as real estate" in the use and type of collateral sy SMEs in order to receive debt financing may be particularly challenging in some MS. These national specificities are complemented by EU-wide

Please see: https://www.fsb.org/wp-content/uploads/P291119-1.pdf.

Financial Stability Board (FSB), Evaluation of the effects of financial regulatory reforms on Small and Medium-sized Enterprise (SME) financing, 29 November 2019 (p.2).



characteristics of the banking sector that is experiencing a combination of two factors affecting banks' lending capacity.

- First, according to the European Banking Authority, "European banks will be required to increase their capital by almost 25% to meet the new Basel requirements³⁷ [and] this number rises to almost 30% for globally systemic institutions" ³⁸. It is to be noted that this situation is based on a "conservative assumption that banks' balance sheets remain static [and aims to] maintain current lending"; while banks are requested to lend more to power growth and innovation, including in new sectors such as those related to climate change. This is partly confirm by the Financial Stability Board (FSB) that has observed that "in some jurisdictions, [Basel III] reforms have also slightly tightened the conditions of SME lending by the most constrained banks [and so the] banks have become more selective and generally apply tighter risk management to lending policies. [In addition, it can be observed] some reallocation of credit towards more creditworthy SMEs and improved access to finance for financially stronger SMEs"³⁹.
- Second, the "current ultra-low interest rate environment driven by Central Bank monetary policy drives spread-compression on the one hand and turns, in many cases, retail deposits not into a source of strength for banks but a further drag on profits"⁴⁰.

Both elements may reduce banks' attractiveness *vis-à-vis* investors and so diminish their capacity to raise equity (because the potential returns for these equity investors are less advantageous than in other investments). This has for consequences to reduce banks' capacity to lend (and may even potentially contract lending). 'General' financial instruments may partially alleviate these different elements thanks to schemes proposing, for instance but not only, capital relief to banks (for all sectors and all types of SMEs).

• In parallel to these general elements, market failures in some other countries are more focused; this focus being in one or several industrial sector(s), and/or concerning specific SMEs' sizes, ages, TRLs, and/or risks, and/or being related to particular amounts of debt financing requested (and not obtained) by some SME segments in the economy. In that context, innovative SMEs often face more difficulties in accessing external financing (including debt financing) in comparison with larger innovative enterprises and/or SMEs that do not develop innovative projects. This challenging environment faced by innovative SMEs seems particularly noticeable in Cyprus, Slovenia, Greece, and Croatia⁴¹. Many *ex-ante* assessments performed

³⁷ More particularly the Basel III capital and liquidity requirements established in 2010.

Prime Collateralised Securities, Response to the Discussion Paper on Synthetic Securitisations of the European Banking Authority, 2019 (p.2). Please see: https://pcsmarket.org/wp-content/uploads/2019/11/PCS-Response-to-EBA-Discussion-Paper.pdf.

This is further developed by FSB: "there is some evidence that the more stringent risk-based capital requirements under Basel III slowed the pace and in some jurisdictions tightened the conditions of SME lending at the most 'affected' banks (i.e. those least capitalised exante) relative to other banks. These effects are not homogeneous across jurisdictions and they are generally found to be temporary.

[...] In some jurisdictions, RBC [i.e. Basel III] reforms have also slightly tightened the conditions of SME lending by the most constrained banks. In these jurisdictions, banks most affected by the reforms ex-ante have kept relatively higher loan rates charged to SMEs. [...] Loan collateralisation has also increased at the most affected banks. [...] In general, these findings confirm stakeholders' feedback that banks have become more selective and generally apply tighter risk management to lending policies [...] The empirical analysis based on firm and bank firm-level data finds some reallocation of credit towards more creditworthy SMEs and improved access to finance for financially stronger SMEs" (pp.1-3). It is consequently to be noted that regulatory changes may impact countries differently (in relation to interest rates and collateral requirements especially), even if common elements can be observed and if such effects may be mitigated over time.

Financial Stability Board, Evaluation of the effects of financial regulatory reforms on Small and Medium-sized Enterprise (SME) financing, 29 November 2019.

⁴⁰ Prime Collateralised Securities, *Response to the Discussion Paper on Synthetic Securitisations of the European Banking Authority*, 2019 (p.2).

EC, Directorate-General for Internal Market, Industry, Entrepreneurship and SMEs (DG GROW), Annual Report on European SMEs 2018/2019, Research & Development and Innovation by SMEs, SME Performance Review 2018/2019, November 2019 (p.141).



in the SME sector in view of developing ESIF-supported financial instruments during the 2014-2020 programming period also sometimes indicated specific needs for some SME categories. For instance:

- Smaller SMEs (micro-enterprises with less than nine employees) often face more difficulties in accessing debt financing than larger SMEs / enterprises. The main reasons for that are related to a lack of personnel devoted to seek financing and of a limited availability of human and organisation resources in general. In such small companies, the owner / manager often has the responsibility for various fields, including finance, but may lack skills and time to do so. Other explanations relate to a lack of finance literacy within the SMEs, and sometimes a lack of credit history with the banks.
- In the same vein, younger SMEs may face more difficulties than older SMEs (independently of their size). The main reason for that relate to the lack / absence of credit history with the banks. That is why the indicators to assess the TA provided to new SMEs often consider the life resilience of the supported enterprises in order to observe if the latter still exist three years after having been supported.
- In line with the size and age of the SMEs, the lower TRLs (i.e. SMEs having technology levels closer to innovation) often face particular difficulties in accessing debt finance since grants, subsidies and in some cases equity financing may be more relevant (i.e. when returns on equity start to be predictable in regards to the maturity of the projects and the risk appetite of some investors). These SMEs may however face difficulties in accessing debt finance because they most of time have very limited tangible assets (hindering their capacity to provide collateral to a bank or a credit institution).
- SMEs developing in 'new / uncommon' sectors may also represent a risk for banks, independently of their size, age, or TRL. This perception may be linked to their business model(s) or to the sector(s) they work in. For instance, more and more SMEs are proposing circular economy projects in some countries (such as the Netherlands and the Nordic countries). These SMEs develop new technologies (presenting risks linked to their TRLs), but also new business models (such as Products as a Service, PaaS) in 'noninnovative' sectors (e.g. consumer goods, textile, or manufacturing). These new approaches represent risks for banks and other credit institutions that may be reluctant to finance their projects. When assessing such projects, financiers may lack the needed technical expertise to appraise their underlying risks and profitability. This leads to a need to develop ecosystems of local financiers with various risk appetites, expertise, and which would provide different financial products addressing projects' various risk profiles. In other industrial sectors, similar situations may exist and have been indicated in some ex-ante assessments. This is for instance the case of social economy in countries like Bulgaria, France, Greece, and Lithuania. This sector often requires technical assistance and the presence of specific credit institutions and/or MFIs, or incentives for the banks to finance enterprises in the sector. Another example concerns SMEs in the cultural and creative sector, covering various sub-sectors such as: audiovisual, multimedia, the entertainment software industry, as well as cultural tourism⁴². Their specific challenges relate to the need for the financers to know / understand the value chain of each sub-sector, to ensure Intellectual Property Rights (while suppliers, clients and financiers often need to be in the confidence for the projects to develop), and digitalisation that offers new business opportunities (and, again, often requiring the financers to understand each business model and apply tailored risk assessment processes). These various cultural and creative sub-sectors are more developed in some countries than others; for instance where tourism is very developed in France and Southern Europe, or where digital technologies are developing fast in Western and Northern Europe. In that perspective, financial instruments (including ERDF-supported financial instruments) could be developed and address these specific sectors (assuming national / regional instruments would have the needed critical

Please see: https://ec.europa.eu/growth/smes/business-friendly-environment/performance-review en.

This has also been confirmed in: fi-compass, Stock-taking study on financial instruments by sector, 2019.

⁴² Please see:

https://www.eif.org/what we do/guarantees/cultural creative sectors guarantee facility/ccs-market-analysis-europe.pdf.



mass of projects to be viable), further attract public / private funding to generate leverage, and help these SMEs / projects better access finance.

In that context, SMEs may sometimes require different types of financing that may be provided by (ERDF-supported) financial instruments. If, on the one hand, grants are a key financing scheme when projects do not generate revenues and, on the other hand, private sector financing should be sufficient for projects that have reached market maturity and a high degree of bankability, SMEs presenting a higher risk profile for the financers may be helped by publicly-supported financial instruments providing debt financing. The latter may include: guaranteed loans and debt financing with specific risk tolerance levels and conditions (such as subordinated and concessional debt products). These could support short-term (less than one year maturity) as well as long-term loans (more than one year maturity). These instruments may also be combined with grants for some SMEs' sizes, ages, TRLs, and/or risks, as well as in some sectors where it is still considered as needed: the grant would act as an enabling factor, financing the non-revenue generating part of the project, while the financial instrument(s) would provide debt financing with preferential conditions to cover the revenue-generating part of the project and would enable the use of the future returns in other / new projects later on.

The distinction between a need for 'general' and/or 'more focused' financial instruments for SME debt financing cannot be determined only with the numbers provided in the table below. As previously mentioned, these estimations need to be complemented with qualitative elements. They however indicate the magnitude of the debt financing gap in each country and a first perception of what value financial instruments could add in support of SME debt financing.



Table 3: Debt financing gaps in comparison to Gross Domestic Product at Member State level for 2018 (in decreasing order)

Member State	Debt gap (mEUR)	Gross Domestic Product (current prices, mEUR, 2018)	Debt gap / GDP ratio (2018)
Greece	14,254	184,714	7.7%
Cyprus	1,278	21,138	6.0%
Estonia	1,429	26,036	5.5%
Croatia	2,440	51,468	4.7%
Malta	524	12,324	4.3%
Bulgaria	2,054	55,182	3.7%
Portugal	7,542	203,896	3.7%
Czechia	7,179	207,772	3.5%
Lithuania	1,224	45,264	2.7%
Latvia	760	29,524	2.6%
Slovenia	1,137	45,755	2.5%
Slovakia	2,109	90,202	2.3%
Hungary	2,764	131,935	2.1%
Netherlands	11,962	774,039	1.5%
Italy	24,865	1,765,421	1.4%
Romania	2,481	202,884	1.2%
Spain	14,037	1,202,193	1.2%
Sweden	5,494	471,196	1.2%
Belgium	4,265	450,506	0.9%
Denmark	2,753	298,277	0.9%
France	21,103	2,353,090	0.9%
Ireland	2,824	324,038	0.9%
Poland	4,232	496,361	0.9%
Finland	1,845	232,096	0.8%
Austria	2,559	385,712	0.7%
Germany	20,331	3,344,370	0.6%
United Kingdom	13,694	2,393,693	0.6%
Luxembourg	106	60,053	0.2%
EU-28 total	176,655	15,859,138	1.1%

Source: fi-compass, EIF's RMA, based on Eurostat 2017, ECB SAFE 2018 wave 19, 2019.



3.3 Gap assessment for equity financing

Following the methodology detailed in Annex 1 and as for the debt financing gaps presented previously in Section 3.2, equity financing gaps have been computed for 2018⁴³. Since the equity market may be more volatile than the debt market, it may be difficult to consider these equity financing gaps as stable over a short period of years (while it can be the case for the debt financing gaps over a few years as presented in Section 3.2)⁴⁴. These equity financing gaps however provides an indication of the equity market conditions of each country or group of countries. Indeed, as presented below, because part of some data is only available for groups of countries, such groups have been kept to compute the gaps⁴⁵. It is finally to be noted that the calculation of an equity financing gap at EU level would not really provide added value since each national market is very specific and needs to be addressed differently.

Indeed, as indicated in the table hereafter, important differences exist between countries when considering equity financing gaps. Some general elements may however be observed:

• First, in comparison with the debt financing gaps, the equity financing gaps are much larger. While the larger debt financing gap is in Italy with EUR 25bn, the larger equity financing gap is in the UK with EUR 266bn. In addition and for instance, eight MS have an equity financing gap larger than EUR 25bn: the UK, France (EUR 146bn), Greece (EUR 100bn), Germany (EUR 98bn), Sweden (EUR 97bn), Belgium (EUR 68bn), the Netherlands (EUR 41bn), and Denmark (EUR 26bn). The reason behind this situation relates to the fact that average equity financing tickets are often much larger than average loan amounts requested by SMEs. This is despite the fact that fewer SMEs may be interested in and/or eligible / qualified to receive equity financing.

Moreover, and as further explained and developed in this section, the equity financing gaps provide an indication of the degree of maturity of equity markets in the EU. Larger equity gaps may consequently indicate at the same time that:

- Equity funds (VC and/or PE funds) are active but insufficient to cover a given demand (indicating dynamism in the market); and/or that
- The equity funds have reached their limits and are not able to cover the current stock and further demand from SMEs (indicating a need for support on the supply side).

In parallel, smaller equity gaps may indicate either:

- A very limited demand; due to a lack of knowledge in the equity market and its stakeholders from the SMEs, and/or a fear of rejection, and/or an administrative burden that a small corporate team cannot bear / afford; and/or
- A limited offer from equity funds due to this limited demand and so indicating that the current demand is almost covered (but also indicating that demand for equity financing needs to be stimulated); and/or even that

⁴³ As for the debt financing gaps, the most updated Eurostat data on the number of SMEs in the EU is from 2017. Eurostat, NACE Rev. 2 'Total business economy; repair of computers, personal and household goods; except financial and insurance activities', 'Enterprises – Number', Latest update 19 August 2019, extracted on 26 August 2019. Some data is missing from Eurostat and so they are taken from the Annual Report on European SMEs 2017/2018 produced by DG GROW.

⁴⁴ As mentioned in EIF's 2019 'European Small Business Finance Outlook', "over the past 20 years, the European PE activity exhibited booms and busts. The most famous peak periods were observed in 2000 and 2006 [...] The severe crash of the European PE activity in 2008-2009 was followed by a rebound, and fundraising and investment have almost reached new record levels". Please see: EIF RMA, Kraemer-Eis, Botsari, Gvetadze, Lang and Torfs, Working Paper 2019/57, European Small Business Finance Outlook, 2019.

⁴⁵ As detailed in Annex 1, the data for the average equity size is provided by Invest Europe which in some cases only provides information for groups of countries such as the Baltic countries or the Central and Eastern European (CEE) countries. Also, since this study focuses on SME financing, data on Venture Capital amounts (and not Private Equity) have been used to perform the computation of the gaps.



- The current supply of equity financing is already sufficient to cover the current demand for such financing (and so the indicating a very limited gap, or even no equity financing gap).

In other words, a large equity financing gap may either indicate a growing market with active equity funds and an increasing demand for such financing, or a high demand that the market cannot currently cover because of various reasons (such as *i.a.* regulations, demands from SMEs that cannot be successfully addressed by the equity funds, and/or a lack of resources that may be keen to take a certain level of risk). The first situation presents a positive aspect of the equity market, while the second presents more challenging elements, as well as a rationale for a support from financial instruments in some cases.

All these elements of analysis are less present in the debt financing gaps since the banking sector, despite being different from one country to the other in the EU, is more homogeneous than the equity market (in terms of actors, objectives of the banks, practices, and approaches towards SMEs). Following that, equity financing gaps often require more qualitative analyses than the debt financing gaps to provide analytical elements for the further development of appropriate financial instruments (in terms of, *i.a.*, industrial sectors, and/or SMEs' sizes, ages, TRLs, and risk approaches)⁴⁶.

- Second, as presented in the table below and as for the debt financing gaps, the biggest equity financing gaps (in absolute terms) are present in large countries (the UK, France, Greece, Germany, Sweden, and Belgium have equity financing gaps above EUR 50bn). This is logical from an economic and methodological point of view (since the number of SMEs is used to compute the gaps). It however also indicates that 'smaller' economies such as Greece, Sweden and Belgium may have higher equity financing gaps than larger economies such as Spain or Italy.
- In parallel, the smallest equity financing gaps (in absolute terms) are present in smaller economies (Hungary and Bulgaria have equity financing gaps below EUR 1bn, that may be mainly explained by the two lowest average equity sizes in the EU in 2018 with EUR 386k in Hungary and EUR 369k in Bulgaria). In the meantime, some larger economies may also present relatively small equity financing gaps such as Italy and Portugal (with around EUR 3bn). This may mainly be explained by the very low percentages of unsuccessful SMEs seeking equity finance in these two countries: 0.1% in Italy (the lowest percentage in the EU), and 0.5% in Portugal.
- As explained in the first point above, various elements may explain these situations, both on the demand and the supply sides⁴⁷. In the meantime, whilst more qualitative analysis would be needed in order to better understand these equity financing gaps and their relative differences, such gaps nevertheless provide indications for questions that managing authorities in their respective countries may ask themselves. Hereafter is a list of these possible questions:

In that vein, and as mentioned by the ECA in its 2019 report on centrally-managed EU interventions for VC (i.e. the COSME's equity facility for growth, the InnovFin equity facility for early stage, and the EFSI SME window equity product during the 2014-2020 programming period), the EC has carried out an impact assessment for the future VC interventions under the InvestEU programme of the 2021-2027 programming period. No funding gap has not been quantified (as it was done for the debt interventions). This may provide an illustration that computing equity financing gaps leads to a number of assumptions and of interpretations that need to be considered carefully (and may result in more questions than answers).

Please see: https://www.eca.europa.eu/Lists/ECADocuments/SR19 17/SR Venture capital EN.pdf.

As mentioned by the Joint Research Centre (JRC), Science for Policy Report on improving access to finance for high growth innovative enterprises: "there is no consensus in the academic literature on whether the low levels of venture capital investments compared to GDP in most EU Member States are predominantly a supply- or a demand-side problem, i.e. whether there is insufficient VC supply or whether there are insufficient companies to invest in" (p.12). This indicates that the demand and the supply sides (as well as their respective failures) are heavily interconnected in the equity markets, and consequently that each side may a have major influence over the other one.

Please see: https://publications.jrc.ec.europa.eu/repository/bitstream/JRC102928/jrc102928 hgie1%20report.pdf.



- Is a large equity financing gap an indication of:
 - A lack of supply from the investment funds to cover a current dynamic demand for such financing?
 - Insufficient funding available on the investment fund's side to finance their portfolio(s) of company prospects⁴⁸?
 - A lack of interest from the investment funds to invest due to an under-developed exit environment [and so uncertainty regarding the capacity of the equity fund(s) to further divest their investments]?
 - An overestimation of the needs from the SMEs in comparison to the investable projects that VC and PE funds would be keen to invest in?
 - A need for the investment funds to develop more interest in projects with a higher risk profile? (Implying that the equity financing gap is not uniform among the SMEs / projects).
- In parallel, is a small equity financing gap an indication of:
 - A deficiency in financial literacy among the SMEs to request for such financing and consequently no interest from the investment funds to develop their offer?
 - A more pronounced deficiency / reluctance from the SMEs / entrepreneurs of a specific country for using equity financing by fear or by refusal to dilute their management and control (implied by the use of equity financing) and so a preference for (i) remaining potentially under-capitalised, (ii) 'missing' growth opportunities, but (iii) maintaining their control over their businesses? (It is to be noted that this situation is common all over the EU but may be more pronounced in some MS).
 - A lack or even an absence of investment funds at a local level to stimulate demand? (Implying that
 most of the investments in the country are made in the largest cities and/or by investment funds
 from outside the country into the more successful SMEs).
 - A healthy equity market where the demand for financing is overall covered by the current supply? (Implying that a public intervention is not needed from a structural point of view but may be valuable to incentivise the demand for and the supply of equity financing in projects / sectors with higher risk profiles).

It is to be noted that, in each situation (*i.e.* whether the gap is relatively large or small respectively), these different factors are interconnected and often reinforce each other.

- Finally, it is to be noted that equity markets, including in the EU, are heavily dependent on factors that are not only related to the provision of financing *per se* (*i.e.* mainly related to regulations). In that perspective, market stakeholders often point out that⁴⁹:
 - In order to encourage investment (including cross-border investments) and to attract investors (including from outside the EU), the European equity markets may need further harmonisation and coordination among initiatives and programmes from MS that, in the end, target similar SMEs / projects, financial products, and/or sectors.
 - The equity market, as a whole, may need to further raise awareness of the (positive) social and economic impact of this financing source. This would imply to highlight success stories (from both an SME and an investment fund perspective), illustrating i.a. that high financial returns and successful exits are possible in Europe. Such initiatives would stimulate SMEs' initiatives and would increase risk appetites on both supply and demand sides.

This situation has been observed and analysed in:

EIF RMA, Botsari, Crisanti and Lang, Working Paper 2019/59, EIF VC Survey 2019 – Fund managers' market sentiment and policy recommendations, 2019. Please see: https://www.eif.org/news_centre/publications/EIF_Working_Paper_2019_59.pdf.

Elements from this EIF's working paper are used in the analysis detailed further on in this section.

EIF RMA, Kraemer-Eis, Botsari, Gvetadze and Lang, Working Paper 2018/48, EIF VC Survey 2018 – Fund managers' market sentiment and views on public intervention, 2018. Please see: https://www.eif.org/news_centre/publications/eif-wp-48.pdf.



Table 4: Equity financing gaps at Member State level for 2018

Member State	Number of SMEs (2017)	Percentage of SMEs with difficulties in seeking equity finance (2018)	Number of SMEs with difficulties (2018)	Average equity financing size in kEUR (2018) ⁵⁰	Equity gap (mEUR)
Austria	332,755	2.55%	8,486	1,440	12,218
Baltic countries*	391,177	4.36%	17,055	632	10,771
Belgium	619,414	4.47%	27,705	2,451	67,914
Bulgaria	337,100	0.78%	2,622	369	966
CEE**	763,168	3.77%	28,771	487	14,020
Czechia	1,030,143	0.33%	3,389	1,737	5,887
Denmark	208,149	3.75%	7,804	3,322	25,929
Finland	235,761	3.13%	7,371	1,631	12,023
France	2,783,993	2.43%	67,535	2,166	146,299
Germany	2,504,371	1.92%	48,133	2,028	97,635
Greece	829,677	2.62%	21,737	4,586	99,689
Hungary	570,005	0.16%	886	386	342
Ireland	254,929	4.97%	12,667	963	12,197
Italy	3,746,109	0.05%	1,923	1,723	3,313
Luxembourg	33,999	2.27%	773	2,643	2,042
Netherlands	1,160,015	2.70%	31,320	1,322	41,410
Other Europe***	79,684	4.10%	3,267	1,911	6,244
Poland	1,692,695	0.65%	10,923	1,021	11,149
Portugal	868,079	0.48%	4,150	615	2,551
Romania	480,791	2.68%	12,872	750	9,654
Spain	2,661,427	0.79%	20,983	1,058	22,191
Sweden	722,041	10.45%	75,477	1,289	97,308
United Kingdom	2,137,005	4.15%	88,707	3,000	266,148

Source: fi-compass, EIF's RMA, based on Eurostat 2017, ECB SAFE 2018 wave 19, Invest Europe 2018, 2019.

^{*} Baltic countries comprise Estonia, Latvia, and Lithuania. The number of SMEs of the countries have been added up.

^{** &#}x27;CEE' comprises Croatia, Slovakia, and Slovenia. The number of SMEs of the countries have been added up.

^{*** &#}x27;Other Europe' comprises Cyprus and Malta. The number of SMEs of the countries have been added up.

⁵⁰ It is to be noted that the 2019 report of the ECA on centrally-managed EU interventions for VC has observed that EU-backed VC funds (*i.e.* funds supported by COSME, InnovFin and/or the EFSI SME window) have invested, on average, between EUR 1.36m and EUR 2.56m *per* SME in the seed and start-up stages respectively, while the average investment in the growth and buy-out stages *per* SME were EUR 4.82m and EUR 7.16m respectively. The average amounts used in this computation are so in line with these amounts for VC investments (and since, as explained in Annex 1, VC amounts have been favoured to compute the equity financing gaps).



Similarly to the debt financing gaps, a comparison of the equity financing gaps with the GDP of each MS has been performed. This comparison (i.e. the percentage of the equity financing gap as per the GDP of each MS) is presented in the table below. When reading this table, it is important for each MS to consider various factors: (i) the total number of SMEs in the country, (ii) the percentage of unsuccessful SMEs in each country, (iii) the average equity size to be requested by each SME (extracted from data presented in Annex 1), and (iv) the GDP of each MS. In this respect, the share of the equity financing gap within the GDP of some MS may provide some elements of analysis of their SMEs' access to equity financing:

- Similar to the 'debt financing gap to GDP ratio', Greece presents the highest 'equity financing gap to GDP ratio' with 54.0%. This ratio is in absolute terms very high and much higher than in any other country. It consequently indicates the magnitude of the difficulties that SMEs may experience when looking for equity financing in the country. From a methodological point of view, this ratio may be explained by the average equity financing size (EUR 4.6m), which is the highest in the EU. This results from the fact that only nine VC transactions occur in Greece in 2018 (according to Invest Europe), with an average size quite high. In other words, a few successful projects / SMEs may be financed in Greece but the rest of the economy seem to have a very limited access to this market. In parallel, the percentage of unsuccessful SMEs is not among the highest of the EU. This indicates that successful SMEs may receive equity financing in the country, but that the rest of the SMEs may fear for rejection and currently do not consider using such financing (despite potentially needing it to grow and improve their balance sheets and so facilitate their access to debt financing). It is also worth mentioning that in 2018, Greece set up a large Fund-of-Funds (FoF) of EUR 300m mobilising ERDF funding, national resources, as well as EIF, and EIB funding supported by the European Fund for Strategic Investments (EFSI). It proposes three equity windows: an 'Innovation window', an 'Early Stage window' and a 'Growth Stage window'51. It is expected that the introduction of this large FoF will have a positive impact on Greek SMEs' access to equity financing.
- Sweden also presents a high 'equity financing gap to GDP ratio'. This mainly results from the percentage of unsuccessful SMEs in the country (10.5%), which is the highest within the EU. This high percentage results itself from the fact that, according to SAFE, 64% of the Swedish SMEs consider equity capital as relevant for their firm; this share being much higher than the average in the EU (12%). The high 'equity financing gap to GDP ratio' in Sweden seems consequently related to a high interest from SMEs for equity financing that is currently not satisfied. This is confirmed by the 319 VC transactions operated in the country in 2018 according to Invest Europe. This overall situation may be explained by the fact that a number of SMEs are currently not able to present investable projects to investment funds, despite an interest for such a financing and a relatively high number of SMEs that were successful in their requests in 2018, and/or that these equity funds are not able to answer all the requests from the SMEs. Challenges in the Swedish equity market may consequently exist on the demand and/or on the supply sides; justifying a public intervention, potentially under the form of financial instruments (notably to increase the available supply) and/or TA for SMEs.
- On the opposite, Italy and Hungary present very low 'equity financing gap to GDP ratios' (respectively 0.2% and 0.3%). If the two equity markets are different, similarities occur regarding the attitude of SMEs towards equity market stakeholders. Both countries present the two lowest percentages of unsuccessful SMEs (0.1% in Italy and 0.2% in Hungary), resulting from very limited interest from the SMEs for such financing in their respective countries according to SAFE results (only 2% in each country, in comparison to 12% at the EU level). In addition, the average equity sizes are quite limited in each country (EUR 1.7m in Italy and EUR 386k in Hungary). In the meantime, the number of VC transactions in the two countries in

Please see: https://www.fi-compass.eu/sites/default/files/2019-10/EquiFund-Brochure.pdf, https://www.fi-compass.eu/video/fi-compass-showcase-2019-submission-watch-video-story-greece-equifund and https://www.fi-compass.eu/sites/default/files/publications/20181016 Berlin Romano EIF 0.pdf.



2018 are quite different: 92 in Italy and 183 in Hungary. These different elements provide indications of limited demand from SMEs in these two countries, or at least a demand for limited amounts that are not necessarily significant enough to support growth strategies. These elements also indicate potential for supporting the development of the two equity markets (on both the demand and supply sides)⁵².

It may also be interesting to have a first overview of the 'equity financing gap to GDP ratios' of the seven MS selected by DG REGIO and *fi-compass* for further analysis in the Country Fiches (in decreasing order when considering their 'equity financing gap to GDP ratios'):

- Information exclusively on **Slovakia** is not available within Invest Europe. An analysis consequently needs to be performed at the level of the Central and Eastern European (**CEE**) countries (comprising here: Croatia, Slovakia, and Slovenia). CEE countries present altogether an 'equity financing gap to GDP ratio' of 7.5%. This ratio is not among the highest in the EU and results from a percentage of unsuccessful SMEs of 3.8%, which is also not among the highest in the EU. These countries however present among the lowest average equity sizes with EUR 487k, and only 13 transactions in total occurred in the three countries in 2018. The equity markets in these three CEE countries consequently seem to be quite limited in terms of number of transactions and amounts provided. On the demand side, only 3% of the Slovak SMEs consider equity financing as relevant for them, in comparison to 24% of the Slovenian SMEs and 26% of the Croatian SMEs. Following these first elements, the CEE equity markets and more particularly the Slovak market may need to be stimulated to provide higher ticket sizes and finance a larger number of SMEs. In parallel, TA support on the demand side may create more interest among the Slovak SMEs to stimulate demand and propose investable projects to the investment funds.
- The elements presented in the two tables on equity financing invite to consider that the situation in **France** is different than in Slovakia. With the second largest equity financing gap after the UK (EUR 146bn in comparison with EUR 266bn in the UK), a quite low percentage of unsuccessful SMEs (2.4%), and an average equity size of EUR 2.2m, the financing gap in the French equity market indicates dynamism and support for SMEs' growth strategies. It is also to be noted that, according to Invest Europe, 691 VC transactions happened in France in 2018. This is the second highest number of VC transactions in the EU, after Germany (723 deals) and before the UK (617 deals). Based on these elements, the French equity market indicates dynamism, growth, and consequently potential for public intervention(s) to support this growth and/or incentivise the different actors in the market to ensure that this growth benefits to various types of SMEs, and notably the ones having the highest potential, the highest possible added value, and the highest risk profiles.
- The 'equity financing gap to GDP ratio' of **the Netherlands** is 5.3%. It results from a relatively low percentage of unsuccessful SMEs (2.7%), and an average equity size of EUR 1.3m. Considering the active role of investment funds in the country, the equity financing gap (EUR 41bn) and the 'equity financing gap to GDP ratio' may indicate that, as for France, the Dutch equity market presents dynamism (for instance, 293 VC deals occurred in the country in 2018 according to Invest Europe, and 22% of the SMEs consider equity financing as relevant for them, when the EU average is 12%). As for France, it is however to be confirmed with interviews with market stakeholders what elements compose this dynamism and what

As for complementary elements and in order to provide another view of the dynamism and of the potential difficulties of the equity markets at MS level, the ECA, in its 2019 report on centrally-managed EU interventions for VC, has observed that EU-backed VC funds (i.e. funds supported by COSME, InnovFin and/or the EFSI SME window during the 2014-2020 programming period) have been mainly active (as of end of June 2018) in France and Italy (with 20% and 14% of the total number of supported funds respectively), followed by Luxembourg, the UK, the Netherlands, Germany and Finland. Also as of mid-2018, none of the centrally managed EU-backed VC funds had invested in Cyprus, Malta, Slovenia or Slovakia, and only limited investments (for EUR 29m in total) had been made in Bulgaria, Czechia, Hungary, Poland, or Romania. When these elements are considered together with the two tables on the equity financing gaps computed and presented in this study (Table 4 and Table 5), it appears that a comprehensive analysis (and story) of the EU equity market is complicated to build (and would add limited value). MS-specific analyses should consequently be favoured and supported with qualitative elements (see Annexes 1 and 2 on that matter).



public support may be relevant to make sure the SMEs with the highest potential or presenting innovative solutions are supported by the investment funds.

- Romania presents an 'equity financing gap to GDP ratio' of 4.8%, a percentage of unsuccessful SMEs of 2.7%, and an equity financing gap of EUR 10bn. In the meantime, another data provides a key indicator of the equity market in the country. According to Invest Europe, only one VC deal occurred in the country in 2018. In addition, only 10% of the SMEs consider this type of financing as relevant for them (so below the EU average of 12%). This situation seems to indicate that the Romanian equity market remains limited and that public support may be needed on both the supply and the demand sides in order to help structure it.
- The characteristics of **Austria** indicate another type of situations. With a quite low 'equity financing gap to GDP ratio' of 3.2%, a percentage of unsuccessful SMEs of 2.5% (and so comparable with France and the Netherlands), and an equity financing gap of EUR 12bn, the country seems to indicate a quite median situation (with an average equity size of EUR 1.4m and 54 deals operated in 2018 according to Invest Europe). This seems to indicate that investment funds are present and active. It also provides elements regarding a potential currently not exploited to further reduce the gap and address the unsuccessful SMEs.
- The 'equity financing gap to GDP ratio' in **Czechia** among the lowest in the EU (2.8%). It results from a very low percentage of unsuccessful SMEs (0.3%, which is similar to the situations in Italy and Hungary detailed earlier) that itself derives from a low interest from the SMEs for such financing (2% of the SMEs according to SAFE, which is, again, similar to Italy and Hungary). In parallel, the average equity size provided in 2018 was of EUR 1.7m (which can be considered quite high), and eight VC transactions occurred in the country on that year according to Invest Europe. These different elements indicate a low level of development of the equity market in the country, despite a limited number of successful transactions. It may also indicate (i) a preference from the Czech SMEs for debt financing, (ii) some lack of knowledge of the equity market, as well as (iii) some reluctance to open their capital to other investors.
- Together with Italy and Hungary described earlier, **Portugal** presents the lowest 'equity financing gap to GDP ratio': 1.3%. Similar to these other two countries and to Czechia this situation in Portugal results from a low percentage of unsuccessful SMEs (0.5%), that itself derives from a low interest from the SMEs for such financing (2% of the SMEs according to SAFE, which is, again, similar to Italy, Hungary, and Czechia). Portugal presents however an average equity size of EUR 615k in 2018 (so about twice the size of the tickets in Hungary and Italy, but nearly three times less than in Czechia). Finally, 52 VC transactions happened on that same year in the country according to Invest Europe. These four countries hence present different situations but all indicate challenges and lacks in both the demand and the supply sides. In Portugal, SMEs (i) may lack financial literacy to request appropriately equity financing, (ii) may prefer debt financing (even if equity financing would be more appropriate for them), and (iii) may be reluctant to open their capital. In parallel, the equity funds investing in Portugal seem to mainly provide smaller tickets that may be very useful for some SMEs / projects, but do not allow for the support of growth, innovative and risk-taking strategies. These different elements consequently indicate potential for a public support on both the demand and the supply sides, including *via* financial instruments.



Table 5: Equity financing gaps in comparison to Gross Domestic Product at Member State level for 2018 (in decreasing order)

Member State	Equity Gap (mEUR)	Gross Domestic Product (current prices, mEUR, 2018)	Equity gap / GDP ratio (2018)
Greece	99,689	184,714	54.0%
Sweden	97,308	471,196	20.7%
Other Europe***	6,244	33,462	18.7%
Belgium	67,914	450,506	15.1%
United Kingdom	266,148	2,393,693	11.1%
Baltic countries*	10,771	100,824	10.7%
Denmark	25,929	298,277	8.7%
CEE**	14,020	187,424	7.5%
France	146,299	2,353,090	6.2%
Netherlands	41,410	774,039	5.3%
Finland	12,023	232,096	5.2%
Romania	9,654	202,884	4.8%
Ireland	12,197	324,038	3.8%
Luxembourg	2,042	60,053	3.4%
Austria	12,218	385,712	3.2%
Germany	97,635	3,344,370	2.9%
Czechia	5,887	207,772	2.8%
Poland	11,149	496,361	2.2%
Spain	22,191	1,202,193	1.8%
Bulgaria	966	55,182	1.8%
Portugal	2,551	203,896	1.3%
Hungary	342	131,935	0.3%
Italy	3,313	1,765,421	0.2%

Source: fi-compass, EIF's RMA, based on Eurostat 2017, ECB SAFE 2018 wave 19, Invest Europe 2018, 2019.

st Baltic countries comprise Estonia, Latvia, and Lithuania. The GDP of the countries have been added up.

^{** &#}x27;CEE' comprises Croatia, Slovakia, and Slovenia. The GDP of the countries have been added up.

^{*** &#}x27;Other Europe' comprises Cyprus and Malta. The GDP of the countries have been added up.



As mentioned in the introduction of this section, equity financing markets – and consequently equity financing gaps –need foremost to be considered on a country-by-country basis. Their analyses also require qualitative elements to further generate analytical inputs for the development of appropriate financial instruments. This is mainly due to the fact the demand and supply sides are particularly interconnected in this market, and that the gap sizes as well as the 'equity financing gap to GDP ratios' may have different meanings, depending on the characteristics of each specific market. Also, even if this gap analysis study does aim to provide country analyses (and considering that some high level country analyses have already been provided in the paragraphs above), it is possible to present some high-level insights for some macro-regions that have similarities in their equity markets. In that perspective, the six macro-regions that EIF usually uses for its equity market analyses⁵³ may be useful. These six macro-regions are:

- The British Islands macro-region covering Ireland and the UK;
- The **DACH macro-region** covering Austria and Germany;
- The 'France and Benelux' macro-region covering Belgium, France, Luxembourg, and the Netherlands;
- The Nordics macro-region covering Denmark, Finland, and Sweden;
- The South macro-region covering Spain, Greece, Italy, Malta, and Portugal; and finally
- The 'Central, Eastern and South-Eastern Europe' (**CESEE**) macro-region covering Bulgaria, Cyprus, Czechia, Estonia, Croatia, Hungary, Lithuania, Latvia, Poland, Romania, Slovenia, and Slovakia.

Moreover, in the context of the VC surveys that EIF performs since 2018, the latter asks VC funds questions in relation of their 'availability of funding', which may indicate elements on the supply side of the different equity markets⁵⁴. The figure below indicates the perception of these VC funds on the overall 'availability of funding' in the different macro-regions as of 2019.

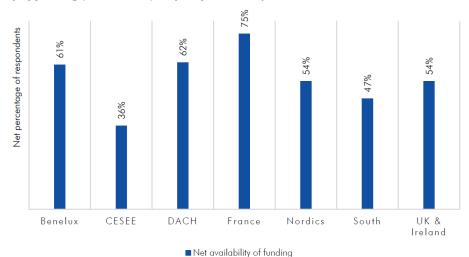


Figure 1: Availability of funding (net balance) - by VC fund headquarter

Note: 'Net availability of funding' reflects the percentage of respondents rating the availability of funding as 'good' or 'very good' minus the percentage of respondents rating the availability of funding as 'bad' or 'very bad'.

Source: EIF's RMA, 2019.

⁵³ EIF RMA, Pavlova and Signore, Working Paper 2019/55, *The European capital landscape: an EIF perspective, Volume V: The economic impact of VC investments supported by the EIF*, 2019.

⁵⁴ EIF RMA, Botsari, Crisanti and Lang, Working Paper 2019/59, EIF VC Survey 2019 – Fund managers' market sentiment and policy recommendations, 2019.

This survey is conducted among VC general partners and management companies whose headquarters are in the EU-28 and other countries (mainly Norway, Switzerland and Turkey). In this survey, respondents provide their views on the state of business and their market activity as well as their general perception of the European VC market.



Based on the different analytical elements present in this chapter, a few considerations may be drawn for the six macro-regions.

When considering the **British Islands macro-region**, it may be recalled that **the UK** presented the largest equity financing gap as well as a quite high 'equity financing gap to GDP ratio' (11.1%), while Ireland's ratio is much lower (3.8%). In parallel to these differences, the percentages of unsuccessful SMEs seeking equity financing in the two countries are quite similar and relatively high (5.0% in Ireland and 4.2% in the UK). In addition, VC funding appears quite 'available' in the macro-region, based on the information provided in Figure 1 above. These elements indicate that the equity financing markets in both countries are quite dynamic, even if the UK one is more (as it can be anticipated). They also indicate potential for the future, and if (ERDF-supported) financial instruments may have a more structural purpose in Ireland, they first should be conceived to address niches markets, less developed regions, or SMEs / projects with higher risk profiles that private actors are not necessarily keen to support without a public intervention.

When considering the **DACH macro-region**, it may be noted that both countries (**Austria** and **Germany**) appear in quite similar situations with close and quite low 'equity financing gap to GDP ratios' (3.2% in Austria and 2.9% in Germany). Their percentages of unsuccessful SMEs seeking equity finance are also quite similar and low (2.6% in Austria and 1.9% in Germany). Following that, the elements presented above on Austria may be considered for the whole macro-region (once also considered the much bigger size of the equity market in Germany). Furthermore, as indicated in Figure 1 above, VC funding seems available in this macro-region (with the 'second best' availability of 62%, following France at 75%). These elements indicate that these two close countries present healthy equity markets where investment funds are present and active, as well as where demand for equity financing is overall covered by the current supply. These conclusions imply that public interventions may not deemed necessary to support the equity markets from a structural point of view, but may be valuable to incentivise the demand for and the supply of equity financing in projects / sectors with higher risk profiles, or in less developed regions.

When considering the 'France and Benelux' macro-region, the elements presented above for France and the Netherlands may also apply to Luxembourg; even if SMEs in this country appear to have fewer difficulties accessing equity financing. The three countries have indeed quite close 'equity financing gap to GDP ratios' (6.2% in France, 5.3% in the Netherlands, and 3.4% in Luxembourg) and close percentages of unsuccessful SMEs (2.7% in the Netherlands, 2.4% in France, and 2.3% in Luxembourg). Belgium appears to be in a different situation with a higher 'equity financing gap to GDP ratio' (15.1%) and a higher percentage of unsuccessful SMEs (4.5%); indicating that more structural difficulties exist on this market and that (ERDF-supported) financial instruments may here add value on a broader scale (i.e. not only on niches markets or particularly high risk profiles). Moreover, it is to be noted that, as indicated in Figure 1 above, VC financing seem particularly available in this macro-region with high 'net availability of funding' (75% in France and 61% in Benelux). Following that, equity funds seem particularly active (especially in France) but sometimes insufficient to cover a given demand. This situation indicates dynamism of the equity markets. In that perspective, the equity financing gaps (especially in France and in the Netherlands) may be an indication of a lack of supply from the equity funds to cover a particularly dynamic demand for equity financing in some sub-sectors, regions, and/or types of SMEs / projects. All these elements induce that public interventions in this macro-region may / should, (i) on the one hand, target structural issues in Belgium in order to facilitate overall SMEs' access to equity financing, while, (ii) on the other hand, focus, in the other three countries, on regional funds (already active in these countries) as well as sectoral funds (the later focusing on innovative projects and/or fields to be supported by Smart Specialisation Strategies' initiatives).

When considering the **Nordics macro-region**, it may be noticed that **Sweden** appears to be in a singular situation (*this situation being described above in more details*). Indeed, if Sweden presents a large equity financing gap, a high 'equity financing gap to GDP ratio' (20.7%) and the largest percentage of unsuccessful SMEs in the EU (10.5%), **Denmark** and **Finland** present a situation closer to the 'France and Benelux' macro-region (when



considering these different factors, even if with a higher percentage of unsuccessful SMEs). In addition, as illustrated in Figure 1 above, the 'net availability of funding' in this macro-region is similar to the one in the British Islands macro-region. Following this, it is to be noted (i) the very high interest from Swedish SMEs for equity financing that is currently not satisfied by the market, (ii) an overall relatively high percentage of SMEs that were unsuccessful in their requests in 2018 (3.8% in Denmark and 3.1% in Finland), and (iii) some difficulties from the equity funds to answer the requests from the SMEs; not necessarily because they lack supply / volume but more probably because the different markets are dynamic and generate projects that the equity funds are currently not able to assess and/or finance (i.e. a similar situation to the 'France and Benelux' macro-region, but where the equity funds may, in addition, lack some experience, track record, and technical assistance to finance such new / innovative projects). As for possible public interventions, technical assistance on both demand and supply sides may be considered in order to both strengthen the quality of the SMEs' projects proposed to the equity funds, and build the capacity of these equity funds in assessing 'new / uncommon' projects in these three countries (with each quite limited internal markets). In addition to that, (ERDF-supported) financial instruments may be relevant to improve the capacity of the equity funds (of these 'quite small' territories) to increase the overall volume of equity finance provided to SMEs, and to finance projects with higher risk profiles.

Together with the CESEE macro-region (see hereafter), the **South macro-region** is the one presenting the main challenges concerning the development of equity financing markets. As already presented above, Greece is in a particular situation. Indeed, Greek SMEs seem to experience specific difficulties when looking for equity financing and, if a few successful projects / SMEs may be financed, the rest of the economy seems to have a very limited access to this market (fearing rejection or not considering this type of financing at all). As also mentioned above and to a lesser extent, Spain and Italy represent quite large economies where the equity financing gaps are quite small, the 'equity financing gap to GDP ratios' are among the smallest (1.8% in Spain and 0.2% in Italy) and the percentages of unsuccessful SMEs are among the lowest (0.8% in Spain and 0.1% in Italy). In parallel and despite being a 'smaller' economy, Portugal presents a very similar situation (an 'equity financing gap to GDP ratio' of 1.3% and 0.5% of unsuccessful SMEs). This situation in Portugal is more detailed in the paragraphs above. Finally, no specific data exists for Malta, but information on 'other Europe' (i.e. covering both Malta and Cyprus) may be considered. These elements are quite different from the other countries of the macro-region. The 'equity financing gap to GDP ratio' is the third largest (18.7%) and the percentage of unsuccessful SMEs is also quite important (4.1%, which similar to the one in the UK). In the meantime, it is to be noted that the ex-ante assessment for Malta revealed that the equity financing market for local SMEs is still under development. Following that, the different elements characterising this macro-region indicate a limited supply proposed by equity funds - mainly due to a limited demand - which may give the impression that the current demand is almost covered, but more probably illustrate that demand for equity financing needs to be stimulated in these countries (in parallel to technical / financial support to the supply side in order to ensure that an appropriate volume of equity financing is available once the demand side is stimulated). In that perspective and as illustrated in Figure 1 above, it is to be noted that the 'net availability of funding' in this macro-region is relatively low (47%), indicating a potential lack of available volume of equity financing. As for possible public interventions in this macro-region, technical assistance on both demand and supply sides may be considered in order to:

- On the demand side: (i) improve financial literacy among the SMEs, in view to increase their interest for such financing, as well as reduce their fear for rejection and their reluctance for opening their capital, (ii) provide them with technical support in their requests for equity financing, and reduce the administrative burden that such requests may constitute; as well as
- On the supply side: build capacity among the existing local equity funds in order for them to better assess the projects proposed by SMEs in the countries of the macro-region.

In addition to that, (ERDF-supported) financial instruments may be relevant to improve the capacity of local equity funds – and to attract other funds that may be interested in developing activities in the macro-region – in



order to provide both (i) smaller equity tickets to help under-capitalised SMEs, and (ii) larger equity amounts for SMEs developing growth, innovative and risk-taking strategies.

As already mentioned, the **CESEE macro-region** also experiences a number of challenges concerning the development of its equity financing markets. Some of the countries of this macro-region have already been detailed in the paragraphs above (namely Czechia, Hungary, Romania, and Slovakia). In that context:

- Several countries (namely **Bulgaria**, **Czechia**, **Hungary**, and **Poland**) present a similar situation to the countries of the South macro-region (*i.e.* low 'equity financing gap to GDP ratios' and low percentages of unsuccessful SMEs), indicating a similar need for public support on both the demand and supply sides.
- The CEE countries (namely **Croatia**, **Slovakia**, and **Slovenia**) present altogether a quite high 'equity financing gap to GDP ratio' (7.5%) and a relatively high percentage of unsuccessful SMEs (3.8%), indicating more developed equity markets where demand is higher but where SMEs still cannot easily access equity financing. This situation may, once again justify quite an intensive public intervention on both the demand and supply sides; but here more focused on the need to improve the quality of the projects proposed to the equity funds. In the same vein, it may be useful to recall that the number of transactions and the amounts provided in the CEE area in 2018 were limited (as indicated in the paragraph above focusing on Slovakia).
- A third sub-group within this macro-region may be isolated: the Baltic countries (including **Estonia**, **Latvia**, and **Lithuania**) with one of the highest 'equity financing gap to GDP ratio' (10.7%) and percentage of unsuccessful SMEs (4.4%). This indicates a situation relatively close to the Nordic macro-region, as well as potentially an overestimation of the needs from the SMEs in comparison to the actual investable projects that equity funds would be keen to invest in.
- Finally, **Romania** appears to be quite in a stand-alone position (with an 'equity financing gap to GDP ratio' of 4.8% and a percentage of unsuccessful SMEs of 2.7%), indicating that Romanian SMEs may be more active in their requests for equity financing (in comparison with the first sub-group of countries especially) but still have difficulties in accessing such type of financing. This situation may, once again, justify a public intervention (as described in the paragraphs above on Romania).

In parallel, it is to be noted that this macro-region has the lowest 'net availability of funding' (36%), as indicated in Figure 1 above. This last element reveals a particularity of this macro-region (in comparison to the five others), since it clearly indicates the role that publicly-supported financial instruments may play in the equity sector of this macro-region (including using ESIF or shared-management funds): providing financial liquidity to the equity markets. In other words, it appears relevant for this macro-region to suggest the use of ESI Funds (or sharedmanagement funds) to develop / set-up equity funds at local level in order to stimulate demand. In addition to this particularity, it is to be noted that the other 'macro-regional recommendations' provided in the different paragraphs above also apply to this macro-region (which, in the end, seems to accumulate the challenges). In other words, public interventions consisting in the provision of technical assistance addressed to both the demand and the supply sides, as well as financial instruments providing various types of equity ticket sizes appear particularly relevant for this CESEE macro-region (see the paragraph on the South macro-region). It is important to also consider the perspective of the private sector in such initiatives in order to make sure that investable projects result from such public technical and financial support, and that the supported financial instruments are adapted to the characteristics of each market. In that context, the Baltic sub-group may constitute an exception within the macro-region since its equity markets seem to be more developed. In that perspective, public initiatives oriented towards more fined-tuned support may be envisaged in order to (i) finance specific sectors / niches (as opposed to a general support to the equity market), (ii) stimulate innovation, and (iii) attract private financing in support of SMEs / projects with higher risk profiles.



4. Conclusions

4.1 Implications of the debt and equity financing gaps on overall EU SMEs' access to finance

The analyses performed in the previous chapter enable a number of conclusions to be drawn:

- Financing gaps (for debt or equity financing) remain high, despite the provision of support from national, ESI Funds and EU centrally managed instruments (such as COSME and InnovFin during the 2014-2020 programming period)⁵⁵. As outlined for debt financing in the EC's impact assessment undertaken for COSME+ for the 2021-2027 programming period, this indicates that the financing gaps would be even more significant without these support schemes.
- Financial instruments can play an important role in facilitating SMEs' access to finance in the current economic context, given their capacity to address a higher level of risk and leverage private sector resources.
- SMEs in some countries may be experiencing particular difficulties in accessing debt financing at the current times, namely: Greece, Cyprus, Croatia, Malta, Bulgaria, and Portugal.
- Some countries in Southern Europe are still recovering from the 2008-2009 crisis, which has an impact on their SMEs' access to finance, namely in most of the countries listed above as well as in Spain and Italy (see Annex 2).
- The difficulties experienced by SMEs in accessing equity financing should be considered on a country-bycountry basis and take into consideration the fact that the demand and supply sides are particularly
 interconnected in this market; leading to a potential role for publicly-supported financial instruments
 that may adopt a proactive approach to stimulate demand and SMEs' initiatives.

Specifically in relation to the potential use and value added of financial instruments for SMEs' debt and equity financing in different EU countries:

• For the **debt market**:

- The **structural difficulties** or deficiencies of some banking markets (*i.e.* when the 'debt financing gap to GDP ratio' and/or when the percentage of viable but unsuccessful SMEs is/are particular higher than in other countries) indicate a role for financial instruments that would help SMEs' access to finance at large, *i.e.* SMEs in all industrial sectors, from all sizes, and/or with all maturities and presenting all types of projects in terms of risk. This may be of relevance in countries where NPLs are particularly high and/or where the provision of collateral by SMEs in view of receiving debt financing is particularly challenging. 'General' financial instruments may also partially help address the current situation of the European banking sector that has to implement the Basel III reforms (involving a 25% to 30% increase of the banks' capital) in parallel to low interest rates; which, together may reduce banks' attractiveness *vis-à-vis* investors, and so reduce their capacity to lend to SMEs. 'General' financial instruments may partially alleviate these elements thanks to schemes proposing, for instance but not only, capital relief to banks (for all sectors and all types of SMEs).
- In parallel to these general elements, market failures in some other countries are more focused; this
 focus being in one or several industrial sector(s), and/or concerning specific SMEs' sizes, ages, TRLs,
 and/or risks, and/or being related to particular amounts of debt financing requested (and not obtained)

⁵⁵ EC, SWD(2018) 320 final, Commission Staff Working Document (SWD), COSME+'s impact assessment, 2018. Please see: https://ec.europa.eu/commission/sites/beta-political/files/budget-may2018-single-market-swd1_en.pdf.



by some SME segments in the economy, thus suggesting a need for more targeted financial instrument support. In this context, smaller, younger, and more innovative SMEs, as well as SMEs developing in 'new / uncommon' sectors such as circular economy, social economy, and/or the cultural and creative sector may have particular difficulties accessing debt financing. Countries or regions with a critical mass of SMEs in these situations and/or sectors could consider the development of fine-tuned financial instruments providing debt financing. For instance, the number of SMEs developing circular economy projects is growing in the Netherlands and in the Nordic countries, while SMEs in the cultural and creative sector are particularly developing in Western and Southern Europe. In order to support the provision of debt financing to such SMEs / projects, guaranteed loans as well as debt financing with specific risk tolerance levels and conditions (such as subordinated and concessional debt products) could be developed, further attract public / private funding to generate leverage, and help these SMEs / projects better access finance.

It should also be mentioned that **the current very favourable financing conditions** – resulting from a high level of liquidity within the banking system, from low interest rates for a long time thanks to the active role of the ECB and from ECB's decisions over recent years to facilitate access to debt financing – **may change in the future**. This uncertainty may be partly answered by well-designed and flexible financial instruments, and the use of ERDF funding would be a key resource to develop such financing schemes during the 2021-2027 programming period. In other words, if the current SMEs' debt financing conditions worsen in the coming years, the development of ERDF-supported financial instruments could be one of the financing schemes to counter-balance this change.

• For the equity market:

- In some countries, the development of large / comprehensive equity financial instruments may stimulate demand and lead SMEs and entrepreneurs to propose new ideas / projects that can be financed later on; while
- In other countries, more targeted equity financial instruments may support the dynamism of some economies and/or translate in practice an interest from the managing authorities or from the SMEs to innovate in new sectors that may be considered as 'too risky' by the current investment funds (e.g. circular economy).

It should be highlighted that, in both cases, **ERDF funding is a key resource to set up such equity financing schemes**. Its capacity to finance projects with higher risk profiles, to attract other public and private resources to generate leverage and incentivise the sharing of risks among actors with various risk appetites, and to focus on the most relevant market failures on a given territory (in terms of SMEs' sizes, risks or industrial sectors for instance), make it a very useful resource in the set-up of equity instruments.

The distinction between a need for 'general' and/or for 'more focused' financial instruments for SME debt or equity financing, or the degree of flexibility needed for the instruments to ensure their adaptation over time, cannot be determined only with the numbers provided in the financing gaps. The latter, however, indicate the magnitude of the gaps in each country and for each type of financing. In that context, they should be complemented with qualitative elements. Finally, they provide a first indication of what value financial instruments could add if / when provided in an appropriate manner.

Finally, regarding the methodology used to compute the financing gaps, it is to be noted that:

- There is no perfect or commonly-agreed methodology to compute financing gaps.
- Once a methodology is selected, the results obtained need to be considered in regards to other studies and/or analyses that would provide additional analytical elements.
- The results obtained need complementary elements to qualify and explain the driving elements of the financing gaps computed in a comprehensive manner.



- In that process, debt financing gaps may appear more straightforward to define, and various data may lead to the similar conclusions or magnitude (even if MS-specific analyses are needed to 'build the story' behind the financing gap computed); while in parallel
- The equity financing gaps appear more volatile and may heavily differ from one year to the other (especially in countries where the equity markets and the number of transactions are still limited, or are dependent on a few sectors whose activity may, itself, be volatile).

4.2 What the Country Fiches will bring for further analysis

As presented in Annex 4, the Country Fiches aim to complement, with more qualitative elements and for seven selected MS, the financing gaps computed in this study for both the debt and equity markets. In that perspective, each MS will be analysed in order to provide DG REGIO and the respective managing authorities with analytical elements, arguments and recommendations to develop ERDF-supported financial instruments for SME financing.

It is to be noted that the seven MS have been selected on the basis that their respective SMEs currently experience difficulties in accessing finance while the current set-up of ERDF-supported financial instruments for SME financing in these countries (see Table 1 on page 15) indicates potential for further use during the 2021-2027 programming period.



5. Next steps

This gap analysis study aimed to provide insights to DG REGIO on the financing gaps and the market failures related to SME financing at MS level for both debt and equity financing. It also aimed to assist DG REGIO in gaining a better understanding of the MS where these gaps and failures where the most important in order to incentivise the MS and the managing authorities to develop financial instruments for SME financing during the 2021-2027 programing period.

Following this final report, a number of next steps exist so as to take these insights and findings further:

- 1. Present the results of this final report to a wide audience within DG REGIO.
- 2. Develop the seven MS Country Fiches for Austria, Czechia, France, the Netherlands, Portugal, Romania, and Slovakia. These Country Fiches will:
 - Summarise the potential for financial instruments using the ERDF and the CF for SME financing in the 2021-2027 programming period, and
 - Provide MS-specific recommendations and discussion elements for DG REGIO in the context of the development of Programmes for the 2021-2027 programming period.



Annexes



Annex 1 - Methodological note

fi-compass experts together with the EIF's Research & Market Analysis team ⁵⁶ developed the following methodology to compute SME financing gaps for (i) debt financing and (ii) equity financing.

Disclaimer and objectives

Against the background of an environment of imperfect information and uncertainty, there is no perfect solution to assess SME finance market gaps and the *correct* quantification of these gaps is impossible. An indicative estimation is however feasible. A variety of approaches is possible and it is advisable to combine different methodologies⁵⁷. All these methodologies have their advantages and disadvantages, but – as mentioned above – none of them is perfect.

The methodology adopted for this gap analysis study aims to be a pragmatic approach to estimate financing gaps, based on an already existing and applied methodology. A similar approach has been applied for debt financing in the *ex-ante* assessment for the EU SME Initiative (SMEI)⁵⁸, as well as in a recent assessment by DG GROW⁵⁹.

This approach is explained and also transposed to equity financing in order to achieve consistency. The data sources used are indicated and the gaps computed are presented in Chapter 3. This Annex also lists at the end the strengths and the weaknesses of the methodology used.

Rationale

The computation of the debt and equity financing gaps aims to define the unmet demand for each financial product from 'financially *viable* but unsuccessful SMEs'. In other words, it aims to estimate the population of SMEs that 'should have' received financing (because they are financially viable) but did not (for various reasons), and to estimate 'how much' this SME population should have received for financing if the market(s) was (were) more efficient. In that perspective, it requires to estimate:

- The population of 'financially *viable* but unsuccessful SMEs' for debt financing on the one hand, and for equity financing on the other hand; and
- An average amount for each financial product to be applied to the specific SME population defined earlier.

These different elements require to consider proxies and assumptions that are explained hereafter.

Research & Market Analysis (RMA) supports EIF's strategic decision-making, product development and mandate management processes through applied research and market analyses. RMA works as internal advisor, participates in international fora and maintains liaison with many organisations and institutions.

For a general overview of approaches and tools for (*ex-ante*) SME finance gap assessments, see EIF RMA, Kraemer-Eis and Lang, Working Paper 2014/22, Guidelines for SME Access to Finance Market Assessments (GAFMA), 2014.

Please see: https://www.eif.org/news centre/publications/EIF Working Paper 2014 22.htm.

⁵⁸ Economisti Associati, The EU SME Initiative SMEI *ex-ante* assessment, « Combined ex-ante evaluation and impact assessment of the successor to the Entrepreneurship and Innovation Programme under the Competitiveness and Innovation Framework Programme 2007-2013 » et cetera, 2011.

EC, SWD(2018) 320 final, Commission Staff Working Document (SWD), Impact Assessment, Accompanying the document Proposal for a regulation of the European Parliament and of the Council establishing the Programme for single market, competitiveness of enterprises, including small and medium-sized enterprises, and European statistics and repealing Regulations (EU) No 99/2013, (EU) No 1287/2013, (EU) No 254/2014, (EU) No 258/2014, (EU) No 652/2014 and (EU) No 2017/826 (COM(2018) 441 final) – (SEC(2018) 294 final) Please see: https://ec.europa.eu/commission/sites/beta-political/files/budget-may2018-single-market-swd1 en.pdf.



Data used and analysed

For computing both debt and equity financing gaps, a number a data sources have been used. They are detailed in the two boxes below. A key data source used for the computations is the 2018 results of the Survey on Access to Finance of Enterprises (SAFE) of the European Central Bank (ECB). More importantly, this gap analysis study has been able to use the micro-dataset (*i.e.* information at SME level with answers provided by each single enterprise) produced by the survey; avoiding additional assumptions.

It is to be noted that the ECB's SAFE survey does not directly identify SMEs' unmet demand for external financial products (being debt or equity financing). In the meantime, a combination of certain questions may give an indication of the magnitude of this unmet demand. For example, according to the SAFE, almost half of the SMEs in the EU indicated banks loans being relevant for them; however, only 17% used it. Those SMEs that have not used bank loans but consider it relevant could become a target population when calculating unmet demand for bank loans; and a potential target population for a financial instrument.

Regarding equity, the difference between 'used' and 'not used but relevant' is even larger. 13% of the SMEs in the EU consider equity financing as relevant for them, however only 1.7% actually used such financing. Finally, there is a significant heterogeneity across MS: in Sweden 62% of the SMEs find equity relevant and 16% used it, while in Portugal, Czechia and Hungary less than 2% of SMEs think equity financing might be needed for them, and none of them looked for such financing over the last six months (in 2018).

The two following boxes detail the computation methods applied to each financing gap presented in Chapter 3.



Box 1: Methodology to compute the debt financing gap⁶⁰

Debt financing gap methodology

DFG = Nb SMEs × Financially viable SMEs x Unsuccessful SMEs × Average SME loan size Unsuccessful SMEs = [loans relevant × (loans not used - loans not needed)]

Where:

• Nb SMEs: Number of SMEs.

Source: Eurostat, EC's SME Performance Review, 2018⁶¹.

• Financially viable but unsuccessful SMEs:

Source: ECB SAFE, 2018.

'Financially viable SMEs': share of SMEs experiencing non-negative turnover growth in the past six months [Q2(a), using 'increased' or 'remained unchanged'].

After eliminating the non-viable SMEs:

- 'Loans relevant but not used': share of SMEs that consider bank loans as relevant but have not obtained it in the past six months [Q4(d), using 'yes' as relevant and 'no' as 'not taken a new loan' or 'not renewed a loan in the past six months'].
- 'Loans not needed': share of SMEs that did not apply for bank loans because they have sufficient internal funds or because of other reasons, given that those SMEs have not used loans but consider them as relevant [Q7A(a), using 'did not apply because of sufficient internal funds' or 'did not apply for other reasons' considering that these SMEs ticked 'no' to Q4(d)].
- Average SME loan size: average size of loans granted to or used by SMEs (weighed averages are computed by county
 using results in QA8 and capped to a maximum single amount of EUR 500k to avoid extreme numbers).

Sources: ECB SAFE, 2018.

Source: fi-compass, EIF's RMA, 2019.

⁶⁰ Please see at the end of this Annex for the questions used in the SAFE questionnaire to perform the computations.

The most updated Eurostat data on the number of SMEs in the EU is from 2017.

Eurostat, NACE Rev. 2 'Total business economy; repair of computers, personal and household goods; except financial and insurance activities', 'Enterprises – Number', Latest update 19 August 2019, extracted on 26 August 2019. Some data is missing from Eurostat and so they are taken from the Annual Report on European SMEs 2017/2018 produced by DG GROW.

In parallel, the most updated Eurostat data on GDP is from 2018. The number of SMEs between 2017 and 2018 is considered stable.



Box 2: Methodology to compute the equity financing gap

Equity financing gap methodology

EFG = Nb SMEs × Unsuccessful SMEs × Average SME equity size
Unsuccessful SMEs = equity relevant × (equity not used - equity not needed)

Where:

• Nb SMEs: Number of SMEs.

Source: Eurostat, SME performance review by the EC, 2018.

• Unsuccessful SMEs⁶²:

Source: ECB SAFE, 2018.

- 'Equity relevant but not issued': share of SMEs that consider equity relevant but have not issued any in the past six months [Q4(j) using 'yes' as relevant and 'no' as 'not issued in the past six months'].
- 'Equity not needed': share of SMEs that did not apply for 'other external financing' including equity, because of sufficient internal funds or because of other reasons, given that those SMEs have not issued any equity but considering it as relevant [Q7A(c), using 'did not apply because of sufficient internal funds' or 'did not apply for other reasons' considering that these SMEs ticked 'no' to Q4(j)].
- Average SME equity size: average size of equity granted to or used by SMEs (data used concern Venture Capital financing
 provided in the MS; sometimes the data is only provided for groups of countries such as the Baltic and Central and Eastern
 European countries, in such cases, the equity financing gaps have been computed at the level of the country group).
 Sources: Invest Europe, 2018.

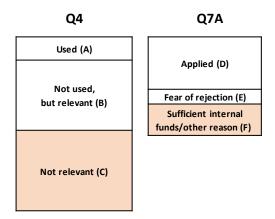
Source: fi-compass, EIF's RMA, 2019.

The figure below helps to visualise the calculation of the share of unsuccessful SMEs based on the ECB SAFE questionnaire. The SMEs falling in the categories indicated in orange boxes are irrelevant for the gap computation since the considered financing product is not relevant for them: they both applied and received what they sought or did not apply because of possessing enough internal funds. In other words, SMEs whose demand has been met or that have had no demand are not qualified as SMEs with unmet demand.

Since SMEs may look for equity financing while not being 'financially viable from a turnover point of view' (either because they are start-ups with no revenue yet or just created without a financial history), the assumption on the 'financial viability' (used for the computation of the debt financing gap) was not considered in the methodology developed for the equity financing gap. The latter hence only consider the unsuccessful SMEs which have looked for equity financing.



Figure 2: Visualisation of the debt financing gap computation methodology



DFG = Nb SMEs × Financially viable SMEs x Unsuccessful SMEs × Average SME loan size
Unsuccessful SMEs = loans relevant x (loans not used - loans not needed)
= [B - F|B]⁶³

Source: EIF's RMA, 2019.

Further considerations

The methodology applied presents advantages and disadvantages. Its advantages are:

- Similar approaches have already been used in the past for the debt financing gap and is accepted by various stakeholders involved in support to SMEs' access to finance.
- The necessary data is relatively easily available (using Eurostat, ECB's SAFE and Invest Europe's data).
- The necessary data is available on a regular basis, and so future similar analysis is possible.
- It is a harmonised methodology for both debt and equity financing (while computing financing gaps for equity financing may be challenging), enabling the possibility to compare debt and equity financing gaps.
- The results of this analysis may be compared with the results of other studies or initiatives (as it is performed in Annex 2).
- If more detailed data were available and consistent, this methodology could enable the computation of financing gaps by SME size, stage in the lifecycle, industrial sector and/or country / region.

Its disadvantages are:

- As any financing gap calculated, the results obtained need to be explained and qualified and complemented by additional information; such as: (i) comparisons with other gap assessments (as proposed in Annex 2) or (ii) other type of information about SMEs' access to finance (such as interviews and further desk research envisaged in Activity 2 of this study).
- This methodology enables projections over time but requires assumptions and hypotheses (e.g. on the number of SMEs, on their future difficulties to access finance, and on the average loan and equity sizes) that are not necessarily strong enough to ensure the viability of the results obtained.

This formulation means: are considered, the SMEs that estimate debt financing as relevant for them but have not 'used' it in the past whether they 'applied' for it (and since they did not use it, they were unsuccessful in their application) or could / should have applied but did not dare because of fear of rejection.

From a mathematical point of view, it means that the SME population considered is composed of: 'B-F' under the condition of B (i.e. within the SME population composing the 'B universe', the SMEs that correspond to the 'F sub-universe' are excluded).



Questions of the ECB's SAFE survey considered

The options / conditions of each question used to compute the financing gaps are underlined and bold in blue.

Question 2 (Q2). Have the following company indicators decreased, remained unchanged or increased over the past six months?

- Increased
- Remained unchanged
- Decreased
- [NOT APPLICABLE, ENTERPRISE HAS NO DEBT]
- [DK/NA]

(a) Turnover

- (b) Labour costs (including social contributions)
- (c) Other costs (materials, energy, other)
- (d) Interest expenses [READ IF NECESSARY: what your company pays in interest for its debt]
- (e) Profit [READ IF NECESSARY: net income after taxes]
- (g) Investments in property, plant or equipment [READ IF NECESSARY: fixed investment]
- **(h)** Inventories and other working capital [*READ IF NECESSARY: Inventories are the goods and materials that a business holds for the ultimate purpose of resale. *READ IF NECESSARY: Working capital is the difference between current assets, such as inventories and invoices, and current liabilities, that is, debt or other obligations coming due within a year.]
- (i) Number of employees [READ IF NECESSARY (IF RESPONDENTS GIVES THE NUMBER): Please indicate if it increased or decreased in the past six months]
- (i) Debt compared to assets [READ IF NECESSARY: that is the ratio of all kinds of debt to total assets]

Question 4 (Q4). Are the following sources of financing relevant to your enterprise, that is, have you used them in the past or considered using them in the future? Please provide a separate answer in each case.

- Yes, this source is relevant to my enterprise [that is, I have used it in the past or I considered using it in the future)
- No, this source is not relevant to my enterprise
- [DK]

[FOR EACH FINANCING SOURCE, IF THE ANSWER IS 'YES', ASK THE RELEVANT FOLLOW-UP QUESTION — ONE ANSWER PER LINE IS POSSIBLE]

- Yes
- <u>N</u>o
- [DK]
- (c) Credit line, bank overdraft or credit cards overdraft.

IF 'YES' (CODE 3) Have you drawn on such types of credit in the past six months?



(b) Grants or subsidised bank loans

IF 'YES' (CODE 3) Have you obtained new financing of this type in the past six months?

(d) Bank loan

IF 'YES' Have you taken out a new loan or renewed such a loan in the past six months?

(e) Trade credit

IF 'YES' (CODE 3) Have you obtained trade credit from your business partners in the past six months?

(f) Other loan, for example from family and friends, a related enterprise or shareholders, excluding trade credit

IF 'YES' (CODE 3) Have you taken out or renewed such a loan in the past six months?

(m) Leasing or hire-purchase

IF 'YES' (CODE 3) Have you obtained new financing of this type in the past six months?

(h) Debt securities issued

IF 'YES' (CODE 3) Have you issued any debt securities in the past six months?

(j) Equity capital

IF 'YES' (CODE 3) Have you issued equity in the past six months?

(r) Factoring

IF 'YES' (CODE 3) Have you used factoring in the past six months?

(a) Retained earnings or sale of assets

IF 'YES' (CODE 3) Have you retained earnings or sold assets in the past six months?

(p) Other sources of financing

IF 'YES' (CODE 3) Have you obtained such sources of financing in the past six months?

Question 7A (Q7A). Have you applied for the following types of financing in the past six months? [READ IF NECESSARY: Please also take into account renewal of the existing contracts.]

- Applied
- Did not apply because of possible rejection
- Did not apply because of sufficient internal funds
- Did not apply for other reasons
- [DK/NA]

(a) Bank loan (excluding overdraft and credit lines)

(c) Other external financing [READ IF NECESSARY: for example, loans from a related company, shareholders or family and friends, leasing, factoring, grants, subordinated debt instruments, participating loans, peer-to-peer lending, crowdfunding, and issuance of equity and debt securities]

Question 8A (Q8A). What is the size of the last bank loan that your enterprise...

up to EUR 25,000

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- more than EUR 25,000 and up to EUR 100,000
- more than EUR 100,000 and up to EUR 250,000
- more than EUR 250,000 and up to EUR 1 million
- over EUR 1 million
- [DK/NA]



Annex 2 – Cross-analysis of the gap assessments with other studies

As mentioned in Chapter 3 and in Annex 1, financing gaps often need to be complemented by other information sources, notably with the use of other studies. This chapter proposes two cross-analyses of the financing gaps previously computed for debt and equity:

- A cross-analysis with the SME Access to Finance index of the EIF; and
- A cross-analysis with the SME Performance Review and Small Business Act Scoreboard of the EC.

As a disclaimer and as explained in Chapter 3 and Annex 1, a variety of approaches exists to quantify financing gaps. None of them can be considered as perfect. That is why it is advisable to combine different methodologies⁶⁴. This difficulty of defining quantification methodologies is also mentioned by the European Court of Auditors (ECA) when assessing the centrally managed EU interventions for Venture Capital (*i.e.* the COSME's equity facility for growth, the InnovFin equity facility for early stage, and the EFSI SME window equity product during the 2014-2020 programming period). The ECA observes that the quantification of a funding gap for VC was not comprehensive, despite *ex-ante* evaluations and impact assessments. This was mainly due to the lack of reliable data⁶⁵. This lack of data leads to the development of assumptions, the use of surveys (like the ECB's SAFE survey) and the performance of qualitative analyses.

These elements need to be considered when performing cross-analyses between studies and methods, as illustrated hereafter.

Cross-analysis with the SME Access to Finance index of the European Investment Fund

The EIF's SME Access to Finance (ESAF) ⁶⁶ index is a composite indicator that monitors SMEs' external financing markets in the 28 EU MS. The ESAF index was developed by EIF in collaboration with the London School of Economics. It provides a convenient tool to compare and benchmark country performance in the context of SMEs' access to finance in the EU. It comprises four sub-indexes:

- Loans;
- Equity;
- Credit and Leasing; and
- Macro factors.

Following this, the first two sub-indexes (for loans and equity) may be useful to observe links / relations or at least a coherence between the financing gaps computed before for both debt and equity financing, and other

For a general overview of approaches and tools for (ex-ante) SME finance gap assessments, see EIF RMA, Kraemer-Eis and Lang, Working Paper 2014/22, Guidelines for SME Access to Finance Market Assessments (GAFMA), 2014.
Please see: https://www.eif.org/news_centre/publications/EIF_Working_Paper_2014_22.htm.

⁶⁵ European Court of Auditors (ECA), *Centrally managed EU interventions for Venture Capital: in need of more direction*, Special Report, 2019.

Please see: https://www.eca.europa.eu/Lists/ECADocuments/SR19 17/SR Venture capital EN.pdf.

EIF RMA, Torfs, Working Paper 2019/58, The EIF SME Access to Finance Index – June 2019 update, 2019. Please see: https://www.eif.org/news centre/publications/EIF Working Paper 2019 58.pdf.

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factors influencing SMEs' access to debt and/or equity financing. The multi-criteria factors considered in the ESAF index are:

- For the loan sub-index:
 - Percentage of SMEs using bank loans in the last six months;
 - Percentage of SMEs using grants or subsidised bank loans in the last six months;
 - Percentage of SMEs not applying for a bank loan because of possible rejection in the last six months;
 - Interest rate for loans under EUR 250k (floating rate with interest rate futures up to one year); and
 - Interest rate spread (under EUR 250k vs. over EUR 1m for floating rate with interest rate futures up to one year).
- For the equity sub-index:
 - Venture Capital investments / GDP;
 - Value of the Initial Public Offering (IPO) market / GDP; and
 - Percentage of SMEs using equity capital in last six months.

In that perspective, it is to be noted that one criteria in each sub-index is also used in the computation of the financing gaps of this study, namely the: 'percentage of SMEs using bank loans / equity capital in the last six months' (data originating from the ECB's SAFE survey, see Annex 1). Following this, it is not surprising if some correlation exists between the financing gaps computed in Chapter 3 and the two ESAF's sub-indexes.

These two sub-indexes are presented in the figure below. They aim to indicate that:

- France ranks first and the Netherlands lags behind in terms of their SMEs' access to loan financing; while
- Sweden ranks first and Slovakia lags behind in terms of their SMEs' access to equity financing.

As explained in the latest version of the ESAF, these elements have to be considered with care⁶⁷ (as for the financing gaps presented earlier).

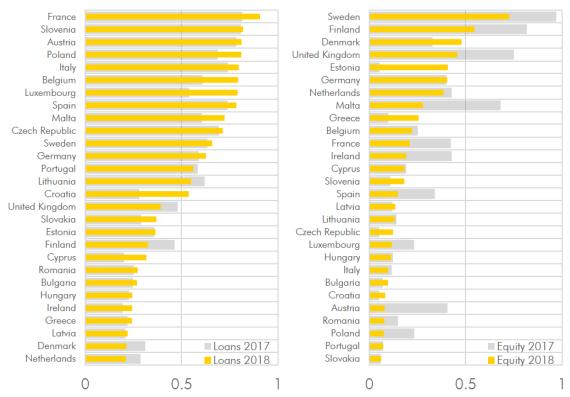
Please see: EIF RMA, Torfs, Working Paper 2019/58, The EIF SME Access to Finance Index – June 2019 update, 2019.

[&]quot;A value of 0.5 does not in itself imply a country performs average in terms of access to finance. Instead, it implies a country performs average vis-à-vis the best and the worst performing country. It is also not possible to track the performance of an isolated country's ESAF over time. An increase in the value of its index does not necessarily imply that SMEs in that particular country experienced an increased access to finance. For comparisons over time, it is advised to use a country's ranking within the EU instead.

It is further advised to avoid placing excessive emphasis on a country's performance on an individual sub-index. Although the ESAF is carefully constructed and several robustness checks have ensured that aggregate results are not driven by relatively minor variations in individual indicators, the equity and macro sub-indices now consist of just three sub-indicators, which are in turn derived from surveys and/or are estimated. Once aggregated to the level of the aggregate ESAF index, the influence of individual sub-indicators is limited. At the level of a sub-index, however, it can be more pronounced. Interpretation of the relative outcomes of the sub-indices is possible, but should nevertheless proceed with caution. It is advised to revert back to the underlying sub-indicators in case of doubt, which is exactly what this publication aims to do. Because of the black-box nature of a composite indicator, its credibility stands or falls with the transparency at which its results are communicated. Therefore, aside from the presentation of the outcome of the ESAF and its sub-indices, the analysis also elaborates on some of the underlying economic indicators, to explain the most important dynamics of the ESAF between 2017 and 2018".







Source: EIF's RMA, 2019.

The two following figures present cross-analyses of:

- The 'debt financing gap to GDP ratio' with the ESAF loan sub-index (Figure 4); and
- The 'equity financing gap to GDP ratio' with the ESAF equity sub-index (Figure 5).

On the figure below, it is observable that there is some correlation between the two data. Indeed, many countries with a high 'debt financing gap to GDP ratio' (such as Greece, Cyprus and Estonia) do not rank so well in the ESAF's sub-index, and *vice-versa* (countries with low 'debt financing gap to GDP ratios' present a good ranking in the ESAF's loan sub-index). In addition, if many countries have a worse ranking in the ESAF sub-index (such as the Netherlands, Denmark, or Latvia) than in the 'debt financing gap to GDP ratio', this illustrates that several criteria need to be used to explain / qualify 'SMEs' access to debt finance' and that a financing gap mainly indicates a magnitude but cannot explain the situation of a banking sector or the day-to-day difficulties of SMEs in their individual access to debt finance.

In other words, it appears that 'debt financing gap to GDP ratios' computed in Chapter 3 overall confirm the ranking analysed by EIF in its ESAF loan sub-index. Taken together, the two analyses also help identifying how the different MS position themselves as for their respective SMEs' access to finance. It however needs to be reminded that each MS-specific situation needs to be qualified to better explain the difficulties that SMEs may have when seeking debt financing in their particular environment.



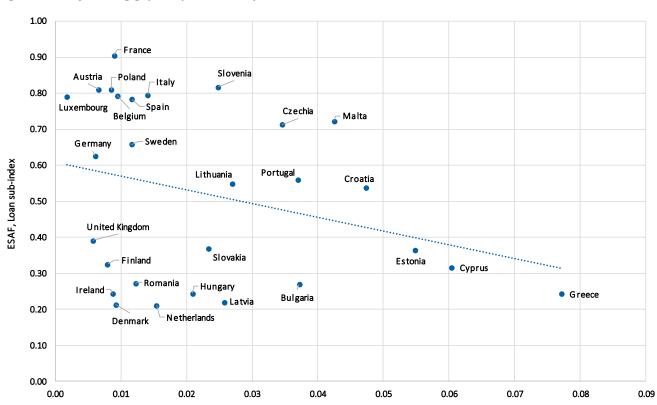


Figure 4: Debt financing gap computed in comparison with the 2018 ESAF's loan sub-index

Source: fi-compass, EIF's RMA, based on Eurostat 2017, ECB SAFE 2018 wave 19, 2019.

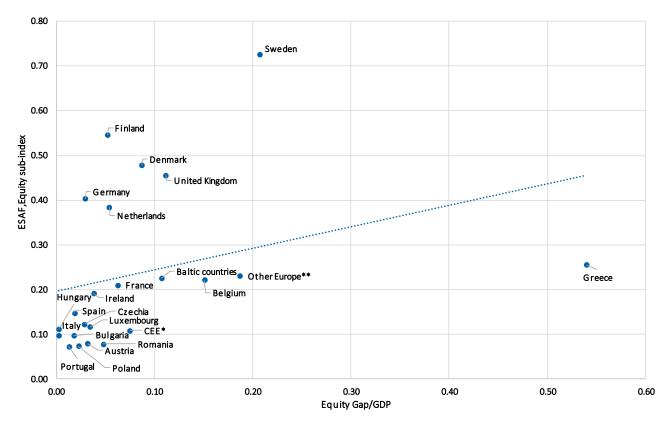
As illustrated in the figure below, the correlation between the 'equity financing gap to GDP ratios' and the ESAF's equity sub-index is less observable. For instance, when considering the two countries with the largest 'equity financing gap to GDP ratios' (namely Greece and Sweden), it seems that these rank very differently in the ESAF's equity sub-index: Sweden ranking first and Greece being in the first third of the ranking; implying that in both countries SMEs' access to equity financing is comparatively facilitated. It is however to be noted that demand, in both of these countries, is quite high, which consequently drives high equity financing gaps. For instance, 45% of the Swedish SMEs said they did not use equity, but consider it as relevant (they can consequently be considered as 'unsuccessful', while, in Greece, the average equity size is relatively high.

Debt Gap/GDP

This does not mean that one analysis is 'right' and the second is 'wrong'; but it illustrates that each of them provides analytical elements that complement the scope of inputs and perspectives that are needed to understand the difficulties that SMEs may experience when accessing equity financing. This is especially interesting since the two pieces of data focus their interest on different components of the SMEs' difficulties to access equity financing: the ESAF's sub-index using information on VC investments and IPO for instance; while the 'equity financing gap to GDP ratios' take into consideration the difficulties that a certain population of 'unsuccessful' SMEs may experience.



Figure 5: Equity financing gap computed in comparison with the 2018 ESAF's equity sub-index



Source: fi-compass, EIF's RMA, based on Eurostat 2017, ECB SAFE 2018 wave 19, Invest Europe 2018, 2019.

Taking a one step back, this cross-analysis with the ESAF's loan and equity sub-indexes exemplifies a few elements already mentioned in Chapter 3, such as:

- The need to qualify and explain the driving elements of the financing gaps (for both debt and equity financing);
- The added value of using various sources of information to qualify these financing gaps;
- The fact that the debt financing gaps may appear more straightforward to define and that various data may lead to the similar conclusions; while
- The equity financing gaps are more volatile and may heavily differ from one year to the other (especially in countries where the equity markets and the number of transactions are still limited, or are dependent on a few sectors whose activity may, itself, be volatile)⁶⁸.

Cross-analysis with the SME Performance Review of the European Commission

Similar to the cross-analysis with the EIF's ESAF index, it may be interesting to consider the financing gaps computed in Chapter 3 in the light of the SME Performance Review performed by the EC (DG GROW). The map

This situation may be explained by the fact that credit markets (providing debt financing) are more mature across the EU than equity markets. In that perspective and as mentioned in Chapter 3, if limited debt financing gaps may be good news for the economies, small equity gaps may imply that the related equity markets are underdeveloped, immature, or non-existent.



below indicates that in six countries (Croatia, Cyprus, Greece, Italy, Spain, and Portugal), SMEs have reduced their value added generated and reduced their volume of employment over the 2008-2017 period. In these six countries, it appears that SMEs experience more difficulties in recovering from the 2008-2009 crisis. Among these six countries, four (Croatia, Cyprus, Greece, and Portugal) have among the highest 'debt financing gap to GDP ratios' (see Section 3.2). Italy and Spain have ratios which are closer to the EU average (even if a bit higher than the average). In the meantime, Italy and Spain presents among the highest debt financing gaps in absolute terms. Following this, and as it can be anticipated, it appears that in countries where SMEs experience difficulties in accessing finance, the latter also acknowledge issues in generating value added and sustain / increase their employment.

Figure 6: Map of SMEs' recovery after the crisis by Member State



Source: EC, DG GROW, Annual Report on European SMEs 2017/2018, The 10th anniversary of the Small Business Act, SME Performance Review 2017/2018, 2018.

In addition to the map above and similar to the EIF's ESAF index, the SME Performance Review presents a ranking of the MS *as per* their SMEs' access to finance. This ranking in presented in the figure below⁶⁹. As indicated in

This ranking takes into consideration the following indicators: Venture Capital investments (as % of GDP); Strength of legal rights index (0-12); Depth of credit information index (0-8); Total duration in days to get paid (number of days); Bad debt loss (as % of total turnover); Cost of borrowing for small loans relative to large loans; Annual average of interest rate for small loans; Rejected loan applications and loan offers whose conditions were deemed unacceptable (as % of loan applications by SMEs); Access to public financial support including guarantees (as % share that indicated a deterioration); Willingness of banks to provide a loan (as % share of respondents who indicated a deterioration); Equity funding available for new and growing firms (Likert scale 1-5); Professional

this ranking, and as anticipated, SMEs present in most of the countries 'in red' on the map above seem to experience particular difficulties when accessing finance (Greece, Cyprus, Italy, Spain, and Portugal). As mentioned above, these countries also present among the highest 'debt financing gap to GDP ratios' or among the highest debt financing gaps in absolute terms (see Chapter 3). The main differences between the two analyses concern France, Luxembourg, Austria, the UK, and Ireland which ranked better in terms of 'debt financing gap to GDP ratios' and, in parallel Latvia, Estonia, Sweden, Czechia, Lithuania, Hungary, and Bulgaria which ranked much worst or 'not so good' also in terms of 'debt financing gap to GDP ratios'.

This situation indicates that:

- Depending on the data, the rankings may differ, but in some situations and especially concerning the countries where the SMEs' access to finance is difficult –, all the data collected and analysed seem to converge to similar conclusions;
- The computation of financing gaps may only provide one piece of information and this piece of information needs to be put in the perspective of a specific context, market and attitude from the SMEs. For instance, and as mentioned in Chapter 3, a large financing gap does not necessarily 'only' indicates a market failure but may also indicate dynamism, willingness to grow among the SMEs and the development of initiatives that the commercial banks (and/or the investment funds in the case of equity financing) cannot easily assess;
- MS-specific analyses are needed to 'build the story' behind the financing gaps computed, and to do so several sources of information need to be gathered and analysed in a comprehensive manner.

Business Angels funding available for new and growing firms (Likert scale 1-5); and Private lenders' funding (crowdfunding) available for new and growing firms (Likert scale 1-5).



Figure 7: Access to finance performance – Most recent year (SME Performance Review 2018)



Note: Malta is not included on this graph due to a lag in data on performance.

Source: EC, DG GROW, Annual Report on European SMEs 2017/2018, The 10th anniversary of the Small Business Act, SME Performance Review 2017/2018, 2018.



Annex 3 – Methodology to assess the use of ESIF funding in financial instruments

This gap analysis study provided in Chapter 2 a high-level picture of the use of ESIF funding in financial instruments for SME financing during the 2014-2020 programming period.

Data collected and analysed

This analysis consisted in using the financial data that MS regularly send to the EC for monitoring / reporting purposes in relation to the implementation of their Programmes.

The cut-off date of the data submitted by DG REGIO (and consequently analysed in this study) is 31 December 2018. This was the most updated data at the time of the drafting of the study. The data was extracted by DG REGIO from the System for Fund Management (SFC) of the European Union (EU) in October 2019.

Method and tools

Definition of financial instruments

The financial data obtained from DG REGIO covers both grants and financial instruments. It includes information on the Cohesion Fund (CF), the European Regional Development Fund (ERDF), the European Social Fund (ESF), as well as the Youth Employment Initiative (YEI). Following this, the mention of 'ERDF-supported' financial instruments in the present study is a simplification to facilitate the reading and understanding of the report.

The dataset was filtered to only consider the 'forms of finance' that correspond to financial instruments, i.e.: guarantees, loans, equity financing, and other financial instruments⁷⁰. The latter form of finance includes either instruments that do not fit into the first three categories, or, more commonly, the grant element of a financial instrument (e.g. interest rate subsidy, and/or technical support).

Definition of sectors

The financial data provided by the MS is broken down by 'categories of intervention' ⁷¹. These individual categories can be gathered under 'macro-categories' that may be considered as a sector (each sector being a 'macro-category' composed of a number of categories selected according to their relevance for the given sector). Once 'created' these macro-categories (and so the sectors) may be analysed.

The following table details the categories of intervention gathered for the 'SME financing' sector.

To be more specific, the codes corresponding to the forms of finance that are considered as 'financial instruments' in this study are: 03 venture and equity capital, 04 loan, 05 guarantee, and 06 subsidy or technical support (the latter being in relation with financial instruments).

⁷¹ As per Article 112(2) of the Common Provisions Regulation (CPR), Regulation (EU) No 1303/2013.



Table 6: Categories of intervention under the SME financing sector analysed in this gap analysis study

Definition of the SME financing sector based on intervention codes

- 001: Generic productive investment in small and medium-sized enterprises (SMEs);
- 056: Investment in infrastructure, capacities and equipment in SMEs directly linked to research and innovation activities;
- 062: Technology transfer and university-enterprise cooperation primarily benefiting SMEs;
- 063: Cluster support and business networks primarily benefiting SMEs;
- 064: Research and innovation processes in SMEs (including voucher schemes, process, design, service and social innovation);
- 066: Advanced support services for SMEs and groups of SMEs (including management, marketing and design services);
- 067: SME business development, support to entrepreneurship and incubation (including support to spin offs and spin outs);
- 068: Energy efficiency and demonstration projects in SMEs and supporting measures;
- 069: Support to environmentally-friendly production processes and resource efficiency in SMEs;
- 072: Business infrastructure for SMEs (including industrial parks and sites);
- 073: Support to social enterprises (SMEs);
- 074: Development and promotion of tourism assets in SMEs;
- 075: Development and promotion of tourism services in or for SMEs;
- 076: Development and promotion of cultural and creative assets in SMEs;
- 077: Development and promotion of cultural and creative services in or for SMEs; and
- 082: ICT Services and applications for SMEs (including e-Commerce, e-Business and networked business processes), living labs, web entrepreneurs and ICT start-ups).

Source: fi-compass, DG REGIO, 2019.

Variable analysed

The variable analysed in this study is the 'total eligible cost of the operations'. This variable is understood to be the best proxy for the amount from a Programme committed by a managing authority to a financial instrument via a Funding Agreement (FA). This particular FA is then considered as the 'operation' that enables the use of Programme funding to one or several financial instruments.

The analysis of this variable has been used to produce the table in Chapter 2.

Results

As mentioned above, the variable analysed is the 'total eligible cost of the operations'. It is analysed in nominal values and as percentage vis- \dot{a} -vis the total sources committed under the SME financing sector⁷² (i.e. amounts for financial instruments in comparison with amounts for 'financial instruments + grants + repayable assistance + prizes' committed to these sectors.

This information enables the analysis of similarities and/or differences between MS and managing authorities relative to the uptake of financial instruments in the SME financing sector.

Other considerations

It is finally needed to be clearly mentioned in the present Annex that:

• The variable analysed in this gap analysis study is an 'amount' (the amount identified in the FA whose unit is in euro) and consequently not a 'number of financial instruments' (this specific information being not

⁷² It is however to be noted that the definition of an 'operation' in the CPR does not ensure that the related amounts are fully comparable under the different forms of finance.



available in a detailed manner that would have enabled a sectoral analysis using the 'categories of intervention').

- Only the financial data reported by the managing authorities under the considered categories of intervention composing the sector are analysed. This implies for instance that:
 - If a managing authority reports a single FA or a single financial instrument under several categories of intervention then this FA or this financial instrument may (i) be reported in various sectors (i.e. not only for SME financing), and/or (ii) be partly reported in the SME financing sector, and partly in another sector not studied in this study (such as Energy Efficiency). These situations do not present a risk of 'double reporting' (where the same amount would be reported several times in different sectors) since each amount is reported for each specific category of intervention. It may however indicate only a part of a larger FA or of a larger financial instrument (whose available amount is then larger since it covers several sectors). In the meantime, this does not prevent the sectoral analysis to be conducted since the 'amount devoted in the FA for financial instruments for this specific sector' is captured, and consequently can be analysed. That is why it is important to keep in mind that the variable analysed in this study is an amount reported for a specific category of intervention, and not a number of financial instruments.
 - If, for instance, a managing authority is using ESF funding under financial instruments to support social enterprises (which is an intervention code considered to structure the SME financing sector / 'macrocategory'), then this ESF financing is considered within the amount considered for the sector. In other words, the information analysed in Chapter 2 may include funding sources others then ERDF; even if the study uses the wording 'ERDF-supported financial instruments'. Such situation may however be considered marginal since the majority of the ESIF resources used to support the SME financing sector (under both grant and financial instrument schemes) originates from ERDF funding.
- Since the cut-off date is 31 December 2018, this study does not capture the financial instruments that have been set-up and implemented in the meantime.



Annex 4 – Template of a Country Fiche

Member State Name

Relevant policy context (using information from Annex D)

* * * *

Overview of financing schemes supporting SME financing

ERDF / CF 2014-2020 financial instruments

Other financial instruments

• National / regional / local FIs

ERDF / CF grants

Other grants

• Main national / regional / local grants

* * *

Overview of SME financing main stakeholders

Role of the National Promotional Bank / Institution in SME financing
Role of other institutions in SME financing

- Regional / local governments
- Chambers of Commerce
- Other institutions
- Financial intermediaries

* * :

Financing gaps

* * *

Recommendations

Recommendations for financial instruments supporting SME financing

- Relevant sub sector considerations
- Assessment of where FIs could provide the most value added
- Assessment of scope for greater use of FIs



Annex 5 – List of interviews

Table 7: List of interviews conducted in the context of the gap analysis study

Interviews with EIB Group representatives				
EIB – Loan Officers for Western Europe (including France and the Netherlands)	Jean-François LEPRINCE Lubomir JANOS			
EIB – Loan Officers for Iberia (including Portugal)	Juan Carlos FERNANDEZ DOBLADO Pedro GONZALEZ COUTO ALMEIDA			
EIB – Loan Officers for Central and South-East Europe (including Czechia, Slovakia and Romania)	Kristin LANG Dietmar DUMLICH Serdar SARI Alexandra ALMEIDA			
EIB – Loan Officer for Baltic Sea and Northern Europe (including Austria)	Alvaro GIL AGUADO			

Source: fi-compass, 2019.



Annex 6 - Interview guide

For this gap analysis study, discussions have been performed with EIB Group experts in SME financing in various countries. For each country covered by the discussion (and mainly the seven countries to be analysed in-depth in the Country Fiches), the following topics have been discussions:

- Perception of the existing financial instruments for SME financing in the country, covering:
 - ERDF-supported financial instruments;
 - Financial instruments using other resources (than ERDF); and
 - The complementarity of these financial instruments with grants.
- Perception of the role of various actors in relation to SME financing, i.a.:
 - The National Promotional Banks and Institutions (NPBIs);
 - Governments (at various levels);
 - The Chamber(s) of Commerce;
 - The commercial banks (and the banking sector in general); and
 - The investment funds (Venture Capital and Private Equity funds).
- Views on financing gaps in both debt and equity markets:
 - With a discussion on the potential market failures on the supply and/or the demand sides;
 - With a discussion on potential financing gaps in 'SME financing in general', or in specific industrial sectors, or on some SME-segments (in terms of size, age, TRL, and/or risk).
- Recommendations to foster ERDF-supported financial instruments in the 2021-2027 programming period, in terms of:
 - Industrial sub-sectors;
 - Financial products; and/or
 - Other dimensions, such as, i.a. SME-segments in terms of size, age, TRL and/or risk.

An interview guide will be more developed and tailored for the interviews in the context of the Country Fiches.



Annex 7 – Bibliography

 Commission Recommendation 2003/261/EC of 6 May 2003 concerning the definition of micro, small and medium-sized enterprises.

Available here:

https://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2003:124:0036:0041:EN:PDF.

EC, COM(2018) 375 final, 2018/0196 (COD), Proposal for a Regulation of the European Parliament and of
the Council laying down common provisions on the European Regional Development Fund, the European
Social Fund Plus, the Cohesion Fund, and the European Maritime and Fisheries Fund and financial rules for
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