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# Minibonds placement on crowdfunding platforms: an analysis of future prospects for the Italian market


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# Abstract

The economic and financial crises occurred in recent years have generated significant consequences on the structure of the Italian and European economic and social system, mainly consisting of small and medium-sized enterprises. As a result of the credit rationing by the banking sector and the increasing difficulty of small and medium-sized enterprises to access financing sources, it was decided to introduce new financial tools that could generate alternative supply channels, that are, among others, the minibonds.

Minibonds have been conceived and developed with different timing, methods and purposes according to the country involved. In some cases, the spread of minibonds has been achieved by exploiting collective investment platforms. For this reason, we will first attempt to examine the European market (including the United Kingdom) for minibonds placed on crowdfunding portals through a detailed analysis of the leading authorized platforms.

In Italy, the use of equity crowdfunding platforms to place minibonds was only approved at the end of 2019. Once specific requirements have been demonstrated, the recent legislation also allows non-professional investors to issue bonds, effectively widening the range of parties that can access this innovative tool. In this view, it fits the project's objective: to analyse the recent development of minibonds on Italian crowdfunding platforms and determine the existence of advantages and risks for companies and investors. To this end, given the small size of the sample of issues available, the investigation was based on the in-depth examination of three different case studies.

On the basis of the final results of the research, it can be stated that the possibility of using crowdfunding platforms to place minibonds increases financing opportunities and generates value for companies. From the investor point of view, the question is twofold: on the one hand, it is possible to diversify the financial portfolio with high-yield debt securities, but on the other hand, the resulting risks cannot be underestimated. In this sense, a greater focus on investor protection, mainly for non-professionals, is proposed as a future prospect.

# Abstract – Italian Version

Le crisi economico-finanziarie verificatesi negli ultimi anni hanno generato significative ripercussioni sulla struttura del sistema economico e sociale italiano e dei Paesi europei, prevalentemente costituiti da piccole e medie imprese. In seguito al razionamento del credito da parte del settore bancario e alla crescente difficoltà delle piccole e medie imprese ad aver accesso alle fonti di finanziamento, si è deciso di introdurre nuovi strumenti finanziari che potessero generare dei canali di approvvigionamento alternativi, tra i quali i minibond.

I minibond sono stati concepiti e sviluppati con tempi, modalità e scopi diversi a seconda del Paese considerato. In alcuni casi, la diffusione dei minibond si è realizzata sfruttando le piattaforme di investimento collettivo. Per questo motivo, in primo luogo si cercherà di esaminare il mercato europeo (Regno Unito compreso) relativo ai minibond gestiti in crowdfunding, attraverso un'analisi dettagliata delle maggiori piattaforme autorizzate.

In Italia, l'utilizzo dei portali di equity crowdfunding per collocare i minibond è stato approvato solamente a fine 2019. La recente normativa, previa dimostrazione di determinati requisiti, permette anche agli investitori non professionali di sottoscrivere le obbligazioni, ampliando di fatto la platea di soggetti che può accedere a questo strumento innovativo. È in quest'ottica che si inserisce l'obiettivo finale del lavoro: analizzare i recenti sviluppi dei minibond sulle piattaforme di crowdfunding italiane ed appurare l'esistenza di vantaggi e rischi sia da parte delle imprese sia nei confronti dell'investitore. A tal fine, vista l'esigua dimensione del campione di emissioni disponibili, l'indagine si è basata sull'esame approfondito di tre diversi casi di studio.

Considerando i risultati conclusivi della ricerca è possibile affermare che la possibilità di usufruire delle piattaforme di crowdfunding per il collocamento di minibond aumenta le opportunità di finanziamento e genera valore per le imprese. Dal punto di vista dell'investitore, la questione è duplice, poiché da un lato risulta possibile diversificare il portafoglio finanziario con titoli di debito ad alto rendimento, dall'altro i rischi che ne derivano non devono essere sottovalutati. In questo senso, si propone come prospettiva futura un maggiore riguardo verso la tutela degli investitori, con particolare riferimento alla categoria non professionale.

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# Introduction

In recent years, the European economy's leading countries have experienced progressive deregulation of banking standards, albeit with non-linear trends and widely differing geographical areas. The result has been the development of an unprecedented number of financial instruments, which has, in turn, increased the link between the financial and economic systems. This relationship was highlighted by the recent financial crisis of 2008, the sovereign debt crisis of 2011 and the Covid-19 pandemic crisis, which accentuated the European economic system's structural limits.

In this scenario, European countries, particularly Italy, whose industrial landscape is mainly characterised by small and medium-sized enterprises, face considerable economic development obstacles. In terms of numbers, at the European level, SMEs account for 99.8% of the total number of enterprises, 66.6% of total European employment and 56.4% of the added value generated by the entire non-financial business sector. SMEs are even more significant at the Italian level: they account for 99.9% of total enterprises, 78.1% of employees work in this segment and generate 66.9% of total Italian added value.

Moreover, in Italy, economic growth is challenged not only by specific welfare and public debt factors but also by deep-rooted features of the credit market, such as the existence of a bank-centric system, considerable barriers to entry for foreign lenders and problems SMEs face in accessing traditional and alternative financing channels.

The difficulties for SMEs in accessing bank credit have been worsened both by the introduction of the Basel III agreements (2010), which has tightened the liquidity and capital constraints on banks, giving them an incentive to provide credit to less risky entities and by the financial crises, which have led to a high number of non-performing loans, resulting in the ECB requesting a review of bank balance sheets and further recapitalizations. In general, it should also be considered that in the event of a recovery in credit, the first to benefit are always large corporations and only then SMEs.

It is precisely in this complicated macroeconomic scenario that an alternative financing instrument to the banking channel can develop: the minibond. The minibond is a bond instrument issued by small and medium-sized enterprises. SMEs can resort to the debt capital market for their investment projects instead of bank credit and overcome the difficulties of access to traditional financing channels.

This new financial security was introduced with different timings and procedures in the European countries, UK included. In Italy, regulators established the minibond innovation through the Competitiveness Decree in 2012.
This dissertation will focus on minibonds issued by SMEs on the crowdfunding platforms, a possibility that some European countries have been using for years, while in Italy was only implemented with the 2019 Budget Law. After providing an overview of the European scenario by analyzing the leading platforms with minibond placements, the attention will be directed to the recent Italian developments by examining three case studies. The work scope is to extend the limited literature available on minibonds and, in particular, to assess the benefits and drawbacks of using the portals both in the view of the enterprises and investors.

The first chapter presents SMEs' definition and provides a snapshot of SMEs' size, structure, and importance to the European and Italian ecosystem. Afterward, the credit crunch phenomenon is displayed, emphasizing how it generates adverse conditions specifically for small and medium enterprises. The SMEs' financial preferences and structures are then broken down, highlighting the causes that force them to become credit-constrained during periods of financial distress more likely. Some data about the European and Italian financing gap are also exposed. Lastly, there is a pursuit of understanding which effects the Covid-19 crisis could have on the economic system in the recent future.
The second chapter prepares the ground in order to comprehend the context in which the minibonds are developing. This section provides an exhausting picture of the alternative financial ecosystem, describing the evolution and the actual performances in the European context. An in-depth examination of the crowdfunding taxonomy and achievements is also shown. This last part is of crucial relevance because it is needed to have a clear insight into minibond innovation's background on crowdfunding platforms.
The third chapter is about minibonds. It aims at providing a complete representation of what this instrument looks like in Europe, exploring the transmission channels and the main characteristics. The minibond industry in Italy is analysed in detail, discussing the players involved, the evolution of the legislative framework and performances about issuances and issuers. Finally, an attempt to outline the advantages and disadvantages of the instrument has been made, highlighting the reasons why investors and enterprises should take advantage of it and vice versa.
In the fourth section, an examination of the minibond placements on the European platform is performed. As a result, we can see that only France and the United Kingdom have placed

minibonds on their portals. By evaluating all the possible platforms of the two countries, a total number of 549 has been found on 14 different platforms. In this regard, we tried to outline the key features with different types of analysis, dividing the sample per country and portal. Besides, the issuers' characteristics and objectives were investigated. A financial analysis was also run in order to assess the changes before, during and after the issuances. At the end of the chapter, the Italian situation is studied, although the issuances' number is relatively low.

The fifth chapter implements the three case studies' analysis, investigating all the characteristics that seem to be crucial and representative of this new market. It aims at finding the opportunities and risks for the recent future both for investors and firms.

The sixth chapter is the conclusive chapter, which summarizes the dissertation's primary outcomes, indicating how the existing literature about minibonds has been enriched by this research, the limitations of the work and the recommendations for future research developments.

# CHAPTER 1

# SMALL AND MEDIUM ENTERPRISES IN THE EUROPEAN CONTEXT

This first Chapter analyses the role of small and medium enterprises in the European economic environment. After a brief introduction on the SMEs' peculiarities and performances, the focus will be directed to the financing issues that characterised this category of companies, also investigating the role of credit crunch and NPLs. An evaluation of the Covid-19 impacts on SMEs' economy is further presented.

## 1.1 SMEs' definition

Small- and medium-sized enterprises (SMEs) play a significant role in their national economies as critical generators of employment and income, and as drivers of innovation and growth. The European Commission defines SMEs as enterprises having less than 250 persons employed, an annual turnover up to EUR 50 million, or a total balance sheet of no more than EUR 43 million (Recommendation 2003/361/EC of 6 May 2003). More in detail, the enterprise can be classified into:

- the medium-size category if employs fewer than 250 employees, has an annual turnover or a total annual balance not exceeding EUR 43 million;
- the small-size category if employs less than 50 employees, has an annual turnover or a total annual balance not exceeding EUR 10 million;
- the micro-size category if is characterized by an employment of fewer than 10 employees, annual turnover or total annual balance not exceeding EUR 2 million.

Therefore, the SME definition is essential since it applies to all policies, programs, and measures that the European Commission develops and operates for SMEs. Consequently, it is worth underlining the contribution of SMEs to the real European economy.

According to the SMEs' annual report 2018-2019 (European Commission, 2019), there were slightly more than 25 million SMEs in the EU-28 in 2018, of which 93% were micro enterprises. SMEs accounted for 99.8% of all enterprises in the EU-28 non-financial business sector (NFBS), generating 56.4% of NFBS value-added and 66.6% of NFBS employment. Overall, the NFBS represented 54.5% of EU-28 GDP and 61.4% of total EU-28 employment. Table 1.1 summarizes the situation.

| | Micro SMEs | Small SMEs | Medium SMEs | All SMEs | Large enterprises | TOTAL – All enterprises |
|---|---|---|---|---|---|---|
| ***Enterprises*** | | | | | | |
| **Number** | 23,323,938 | 1,472,402 | 235,668 | 25,032,008 | 47,299 | 25,079,312 |
| **%** | 93.0% | 5.9% | 0.9% | 99.8% | 0.2% | 100% |
| ***Value-added*** | | | | | | |
| **Value in € (million)** | 1,610,134 | 1,358,496 | 1,388,416 | 4,357,046 | 3,367,321 | 7,723,625 |
| **%** | 20.8% | 17.6% | 18.0% | 56.4% | 43.6% | 100% |
| ***Employment*** | | | | | | |
| **Number** | 43,527,668 | 29,541,260 | 24,670,024 | 97,738,952 | 49,045,644 | 146,784,592 |
| **%** | 29.7% | 20.1% | 16.8% | 66.6% | 33.4% | 100.0% |

Table 1.1: Number of SMEs and large enterprises in the EU-28 NFBS in 2018 and their value-added and employment

*Source: Eurostat, National Statistical Offices, DIW Econ, 2018*

Most SMEs operate in the low-knowledge intensity service industry (51.1%) and on a smaller scale (24.8%) in the knowledge-intensive service industry.

Even if the overall economic growth in the EU weakened in 2018 (GDP increased by 2.1% in 2018 after growing by 2.5% in 2017), the number of SMEs increased by 2.0%, SMEs' value-added by 4.1% and SMEs' employment by 1.8%. The increase in value-added and employment in 2018 was higher compared to that of large enterprises.

Concerning profitability, it is possible to see that SMEs' profit rates varied across industries and declined as the SME size class increased.

In relation to the contribution of SMEs to the expansion of the European economy in 2017 and 2018, it can be noticed that SMEs in the EU-28 accounted for almost 60% of the increase in EU-28 NFBS value-added from 2016 to 2018 and, in terms of NFBS employment growth, EU-28 SMEs accounted for almost 68% of the increase.

Another critical issue that has to be highlighted is the mortality rate. The average enterprise birth and death rates in the EU-28 NFBS were 9.9% and 8.3%, respectively, over the period 2013 to 2016, mainly referred to the high birth and death rates of small and micro SMEs.

Besides, the start-up environment is developing rapidly, and the Global Startup Ecosystem Report (Startup Genome, 2020) located six of the top 30 start-up ecosystems in Europe.

However, it is interesting to analyse SMEs' performances from a different perspective, referring to a European Commission initiative called "Small Business Act for Europe" or SBA in short. The SBA is a comprehensive framework for the European policy on small and medium-sized enterprises established in 2008. It is considered a crucial document because it aims to improve the SMEs' approach to entrepreneurship, removing the barriers to their development and remarking the central role of SMEs in the European economy. It is based on the "think small first" principle, meaning that SMEs' concerns are taken into account as first in policy and regulation-making. It is also integrated with the Europe 2020 strategy, fostering the SMEs' sustainable growth.

To evaluate countries' progress and performance, the document defines nine main principles to be monitored every year: (1) Entrepreneurship, (2) Second Chance, (3) Think Small First & Responsive Administration, (4) State Aid & Public Procurement, (5) Access to Finance, (6) Single Market, (7) Skills and Innovation, (8) Environment, and (9) Internationalisation. Among others, Entrepreneurship means to promote the growth of entrepreneurs and family businesses, Second Chance to guarantee a second opportunity to those who have faced bankruptcy, Single Market refers to the EU as one area without any regulatory obstacles to the free movement of goods and services. Each principle is articulated in several dimensions. At least four different indicators then constitute each dimension, which can be updated from time to time following new methodologies and refinements.

Concerning the 2019 SBA outcomes (European Commission, 2020), the results showed that more than 3,750 policy measures had been adopted since 2011, i.e., an average of more than 450 per year. The most remarkable policy progress can be observed in skills & innovation, entrepreneurship and access to finance, thus recognizing the important role of finance in enabling and empowering people and communities. Figure 1.1 reports the evolution of policy measures for every criterion since 2011.

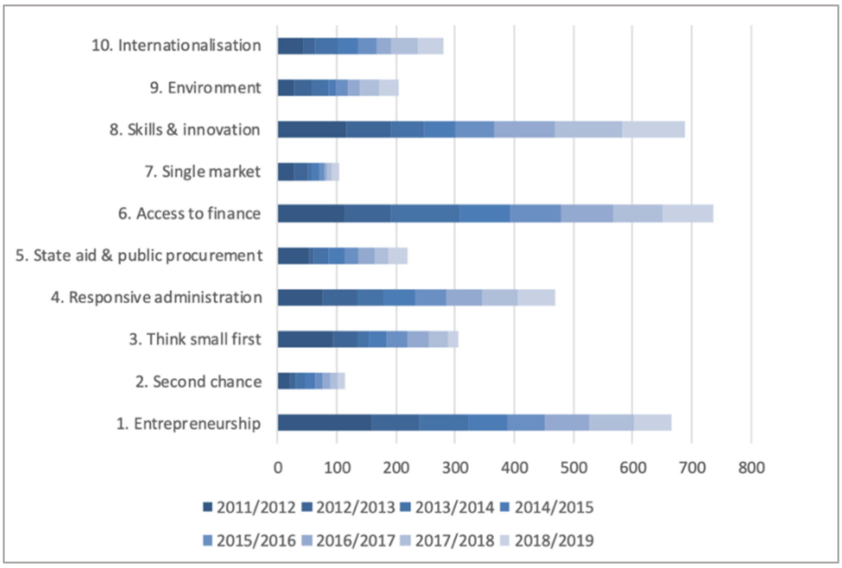


Figure 1.1: Number of SBA policy measures adopted/implemented in the EU28 from 2011 to 2019

*Source: European Commission (2020), 2019 SBA Fact Sheet & Scoreboard*

Besides, it is useful to look at the Italian SBA fact sheet (European Commission, 2020) to compare the European and Italian environment (Table 1.2).

| | EU-28 | Italy |
|---|---|---|
| **Number of SMEs per 1000 inhabitants** | 58 | 72 |
| **Share of micro SMEs** | 93% | 94.9% |
| **Share of value-added generated[1]** | 56.4% | 66.9% |
| **Share of employment generated[2]** | 66.6% | 78.1% |
| **Increase of SME value-added (2017-2018)** | 4.1% | 1.8% |
| **Increase of SME employment (2017-2018)** | 1.8% | 1.1% |
| **SME labour productivity (Value-added per person employed)** | € 44,600 | € 42,000 |

Table 2.2: Comparison between European and Italian SMEs

*Source: Italian SBA fact sheet, 2019*

From the Table, it appears evident that SMEs in Italy are ubiquitous, even above the European average in terms of numbers (72 per 1000 inhabitants compared to 58). To validate the idea that artisans and small business owners are the engines that drives the productive future of Italy and that the Italian economy is characterized by a human dimension made up of links with the families, territory and traditions, it can be observed that 94.9 percent of SMEs belong to the micro category (1.9 percent more than the EU-28 average). SMEs are also the backbone of the Italian wealth, generating 66.9% of the Italian non-financial business economy's total value, which exceeds the EU average, which stands at 56.4%. The share of employment created by SMEs is even larger, at 78.1%, compared to the EU average

[1] Share of overall value-added in the EU-28/Italian 'non-financial business economy'.
[2] Share of overall employment in the EU-28/Italian 'non-financial business economy'.

of 66.6%. In 2017-2018, SME employment growth slowed down, with a rise of only 1.1%, and SME value-added also increased slightly, only by 1.8%. The average SME labour productivity, calculated as value-added per person employed, was approximately €42,000, also relatively lower than the EU average of €44,600.
Regarding the SBA principles, Italy performed below the EU average in 8 of the 9 SBA principles, with the only exception of the Skills & Innovation pillar, where it performed on the average. In particular, Italy obtained unsatisfactory results in the Access to Finance category. Indeed, Italian SMEs have been suffering from the effects of the credit crunch since 2008. Other problems that concurred to strengthen the financing obstacles were banks' lower willingness to provide a loan, the cost of borrowing for small loans relative to large loans, and the average total amount of time it takes to get paid by customers.
Nonetheless, the Italian government has adopted auxiliary measures, such as the support for equity crowdfunding for start-ups and innovative SMEs, and the so-called Savings Plans or Piani Individuali di Risparmio (PIR). These measures offer tax benefits and aim to channel savings and increase investment to Italian companies, particularly to small and medium enterprises. In this sense, the higher attention given to SMEs by the new measures could also positively affect the crowdfunding and minibonds markets.

## 1.2 SMEs' credit crunch

In 1981, Stiglitz and Weiss developed a model for credit rationing, outlining it as an economic condition in which there is an excess of demand for credit at the prevailing interest rate. The most extreme form of credit rationing is a credit crunch, which occurs when "the supply of credit is restricted below the range usually identified with prevailing market interest rates and the profitability of investment projects" (Council of Economic Advisors, 1992). This elucidation is just one among the plurality of definitions available in the literature, but what is important to underline is that credit becomes less available in this economic situation at any given interest rate.
In this regard, it is worth mentioning the contribution by the economist Giovanni Ferri (2008), who identified the presence of several factors in a credit crunch circumstance, such as:

- an increase in the real interest rate;
- a drop in the rate of growth of real loans;

- a movement from relatively risky investments to less risky ones of depositors and banks (the so-called "flight to quality");
- a disproportionate decrease in loans to SMEs;
- an increase in the rejection rate of loan applications;
- a shortening maturity of loans.

During the financial crises this phenomenon is more likely to happen, as it was during the 2007-2008 crisis. In that period, European banks dramatically restricted credit standards on loans to such an extent that Secretary-General of the European Association of Craft, Small and Medium-Sized Enterprises Benassi affirmed: “Loans have become more expensive and burdensome, while their availability has sharply decreased. SMEs are facing difficulties to finance not only their investments but also their day-to-day operations, in a worryingly increasing number of cases” (January 2009).

A study conducted by Hempell and Sorensen (2010) presented empirical evidence that banks’ willingness to supply credit affects the overall bank lending activity, especially during the financial crises. They observed that the 2007-2008 crisis negatively affected banks’ balance sheets, reducing their capability to supply new loans, both for households’ mortgages and non-financial corporations. They also discovered that, even when demand effects can be controlled, supply constraints negatively influence loan growth.

A similar concept is expressed in Gambetti and Musso’s analysis (2012) regarding loan supply shocks. By analysing Europe and the United States, loan supply shocks showed a noteworthy impact on the economy. Their effects appeared to be particularly significant during slowdowns in economic activity. This shocks' contribution could justify about one half of the decline in annual real GDP growth during 2008 and 2009 in the Euro Area and about three-fourths of that observed in the United Kingdom.

Even looking at the Italian situation, as reported by Albertazzi and Marchetti (2010), it is possible to find evidence of a contraction in credit supply associated with low bank capitalization and scarce liquidity as an effect of Lehman’s collapse. Moreover, the ability of borrowers to compensate through substitution across banks also appears to have been limited.

Going more in detail, SMEs are typically the most damaged since they rely mainly on bank credit as the sole source of external finance (the main reasons of this sentence will be explained more in detail afterward). In empirical support of this, Artola and Genre (2011) run several regressions on more than 5,000 European firms to determine which companies experienced financial constraints during the financial turmoil. They discovered that perceptions of a credit crunch were broadly based across firms. However, those who truly experienced a financing crunch tended to be small and young, showing how the business's size and maturity influence the effects of weakening credit conditions. This work also demonstrates how the impacts of the credit crunch are different in the European regions: it has been found that in some of them, the difficulty in finding financing is much greater (e.g., Spain) than in others (e.g., France).

Furthermore, Holton, Lawless and McCann (2013), in their research, adopted a multi-stage estimation approach to investigate the evolution of credit to SMEs across Europe from 2011 to 2013. They pointed out that smaller firms and those with lower turnover are more likely to have loan applications rejected.

Related to this concept, Iyer and Peydró (2014) determined that the credit crunch was "binding" during the global financial crisis. They analysed loan-level data using the entire bank lending in Portugal. Their results suggest that the interbank liquidity shock induced a credit supply contraction in a more decisive way for smaller firms. They also found that these firms cannot compensate for reducing loan supply by obtaining credit from other less affected banks.

Accordingly, it is fundamental to consider the role of internationalization and integration of banks' strategic attitudes since size and concentration are essential to restore the stability of the financial systems during a financial crisis (Paulet at al., 2014). However, the trend towards a more concentrated banking system constitutes additional constraints to accessing credit for SMEs.

If bank lending slows down, alternative sources of funding may become a source of relief for SMEs. Besides, the paper by Véron (2013) found out that there is a correlation between the advancement of non-bank credit and higher resilience against systemic exposure in developed countries. Therefore, SMEs need to reduce their reliance on bank loans and find alternative finance instruments to sustain their future progress.

## 1.3 SMEs' financing gap

In the previous paragraphs we talked about the importance of SMEs in the economic context. However, there are many constraints to the development and growth of this type of companies, one of which is the lack of access to adequate finance to fund their future operations, commonly known as the "financing gap".

The literature is unthinkable to derive an unequivocal definition of the term because many authors described it with a slightly different formalization. Nonetheless, Cressy (2002) delineated a widely agreed definition based on two different approaches. A positive definition (or 'P' definition) according to which the funding gap is "an equilibrium, in which the volume of lending is below that which would emerge in a competitive capital market with costless and complete contracting, no private information and rational expectation" and a normative definition (or 'N' definition) according to which it is "a market failure, the appropriate policy response to which is an increase in the volume of lending". In both cases, when we talk about the SMEs financing gap, we refer to a shortfall in capital needed to fund future operations or projects, namely the difference in total funding needed and the amount of funding available. This discrepancy is a persistent rather than a temporary phenomenon.

The financing gap issue is not something new. It was commonly known as the "Macmillan gap" since it was first identified in 1931 by members of the Macmillan Committee formed by the British government. The report indicated that UK enterprises' access to short-term capital was adequate at the time, while medium- and long-term credits were not sufficient to cover all the requests. In particular, access to capital in the range of 5 to 200 thousand pounds was the most clear-cut problem.

The higher incidence of financial barriers for SMEs than large companies was also underlined by Beck et al. (2005), thanks to a firm-level survey database covering 54 countries. Figure 1.2 shows the effects of different financing obstacles on the company's growth for small and large firms. As can be noticed, small firms' financing obstacles have almost twice the effect on their growth than large firms' ones. This gap becomes even more evident when we focus on specific financing obstacles: the largest firms are scarcely affected.

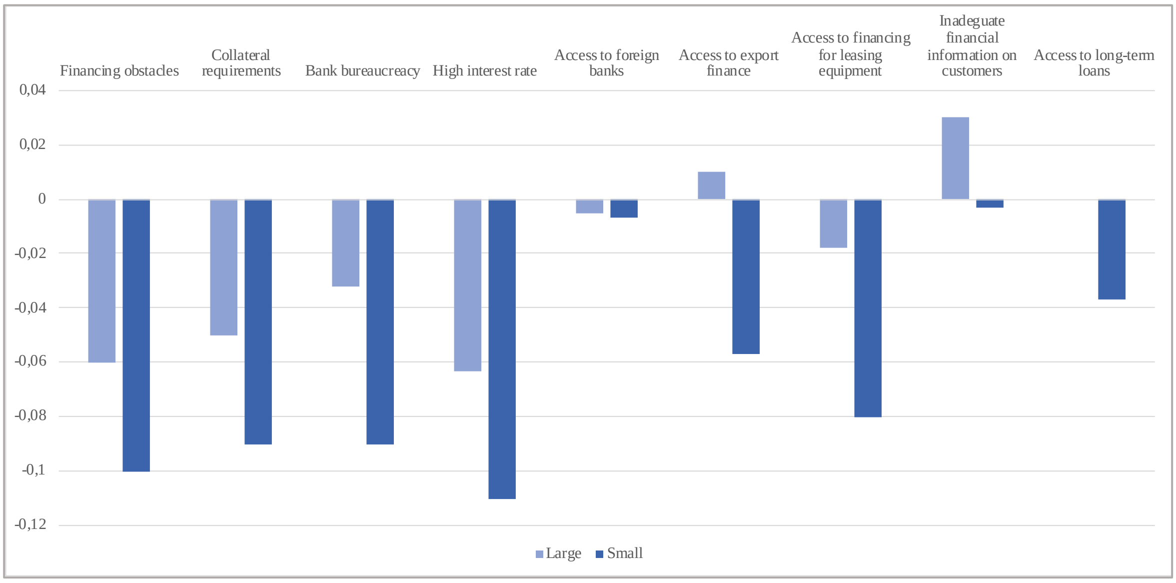


Figure 1.2: Growth effects of financing obstacles across firms of different sizes[3][4]

*Source: own graphing of the Table VI elaborated by Beck et al. (2005)*

As a matter of fact, multiple aspects contribute to the financial constraints of SMEs. Concerning the demand-side factors, the capital structure influences several implicit and explicit details about the financing decisions made by firms. Specifically, the pecking order theory better explains SMEs' financial structure (Hall et al., 2004), which suggests that firms have a particular preference order for capital used to finance their businesses.

In order to understand this concept, it is useful to explain information asymmetry. Information asymmetries happen when one party has more or better information than the other. There are two types of asymmetric information: adverse selection and moral hazard. Adverse selection is a mechanism that occurs before the transaction and lead at the exit of the market of good players. In the case of financing, the search for the average rate of lending may force good borrowers to withdraw. On the contrary, moral hazard happens when one party has an incentive to increase its exposure to risk because it does not bear the full costs of that risk.

Due to information asymmetries between the company and potential investors, firms choose financing options that minimize dilution of control. Consequently, they prioritize their sources of financing, preferring retained earnings over debt, short-term debt over long-term debt and debt over equity (Myers and Majluf, 1984).

[3] Small 5-50 employees, large > 500 employees.

[4] Medium enterprises (50-500 employees) data are not shown since their results assumed intermediate values between small and large firms.

As we have just pointed out, SMEs’ financial behaviour can be naturally described by the hierarchical approach because it is affected by higher asymmetric information since they are characterized by a very high level of opacity (Berger, Klapper, and Udell 2001). At the same time, it is the owner-manager of the SME that may decide not to seek more risky financing like debt or equity.

Among other research, the one carried out by Lopez and Mira (2008) showed precise shreds of evidence that SMEs follow a pecking order model. They analysed a sample of 3,569 non-financial Spanish SMEs, covering the 10-year period 1995–2004. Also, analysing SMEs in Greece, France, Italy, and Portugal, the main conclusion was that firm-specific rather than country facts explain differences in capital structure choices (Psillaki, 2009).

Another demand-side factor concerns the knowledge gap. SMEs are not aware or do not have sufficient information on the types of finance available, possible providers and benefits of using external finance. For instance, the British Business Bank elaborates a report on this topic every year. Although it has risen rapidly in recent years, SMEs' awareness of alternative lending products was still around 50% in 2019.

A further characteristic that is intrinsic to the nature of SMEs is the lower negotiating power compared to larger firms. Dietrich (2010) claimed that SMEs' lack of bargaining power plays a significant role in explaining differences in lending rates between small and large enterprises.

Instead, from a supply-side perspective, information asymmetries and uncertainty of SMEs jeopardize financial institutions’ supply of funding. The small size of SMEs can impact the quantity and the quality of information available, which explains why financial institutions are reluctant to deal with them. The typical behaviour of a lender in the context of ex-ante and ex-post information asymmetries follow the path outlined in Figure 1.3. The scheme suggests how banks, due to information asymmetry, struggle to distinguish SMEs that will repay their loans from those that will not. Therefore, the loans are rationed or offered at a premium, applying additional conditions.

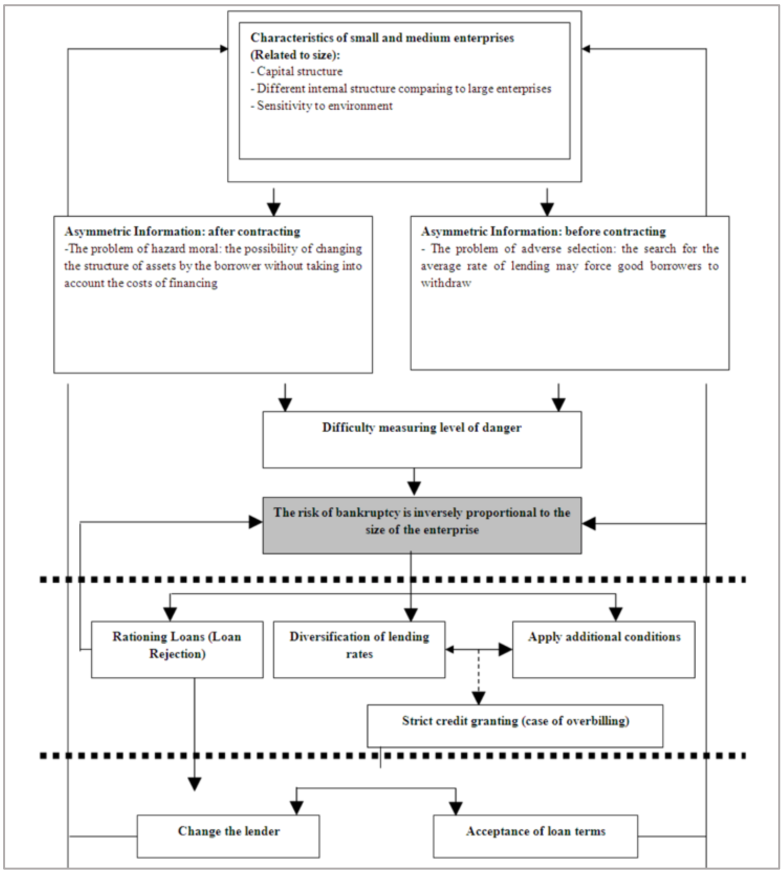


Figure 1.3: Risk Assessment Model for Small and Medium Enterprises

*Source: Khiari, A. (2002)*

Furthermore, SMEs are mostly young and have no time to build up a track record and a reputation. Since younger firms are new to the market and have less creditworthiness, it becomes difficult for them to access long-term and short-term credit.

Looking at transaction costs, from the theory we know that fixed transaction costs exist at the transaction, client, institution and even financial system level. Assessing a single loan application includes costs that are not entirely independent from the lending volume; preserving a customer relationship over time involves partially proportional costs to the number and amount of financial transactions. The same also applies to institutional costs such as legal services and financial costs like regulatory and settlement charges.

As a consequence, all these costs not only raise the cost of borrowing but can also limit some borrower groups' access to external finance. Indeed, banks might ration at a lower interest rate than the market equilibrium rate because higher interest rates would result in lower expected repayments (Williamson, 1987). Hence, transaction costs limit borrowers and they are even more constraining for small and medium enterprises because their different characteristics increase assessment and monitoring costs.

It also has to be said that part of the literature argues that SMEs pay higher interest rates on formal bank credit since they usually cannot offer collateral provisions. As a result, most SMEs’ loans are rejected or subjected to a higher interest rate.

Moreover, most SMEs are not listed in stock exchanges and do not have access to capital markets. Therefore, they are not required to make information available to the public, aggravating the information asymmetry between small and medium companies and their external stakeholders.

The average bank concentration index in the European Union, intended as the percentage of bank assets held by the top three banks in each country, was about 70% for 2017 (Bankscope, 2017). This has an important impact on SMEs' market as there is evidence that larger banks are less well placed to build close relationships with small business clients than smaller and regionally based banks (Bannock and Doran, 1991). Small and domestic banks have more capacity to engage in relationship lending, use soft information and personalized contacts to lend to SMEs, and reduce information asymmetry (Hakenes et al., 2014). In support of this, it is widely known that small and medium-sized businesses are frequently locally or domestically owned. Most do not have access to debt finance from outside their region or country but depend on local banks' loans.

Besides, regarding the firm’s age, Canton et al. (2012) investigated the determinants of firms’ perceived financing constraints, focusing on bank loans. They observed that, at the European level, companies’ age plays an important role, so that older firms perceive external financing as being less complicated. Young SMEs are recognised as lacking experience (Zhang, 2008). At the same time, their mortality rate is also very high. According to Abdesselam et al. (2004), in the industrialized European countries, only 65% of the start-ups live for three years, the proportion decreases to 50% after five years. Only a portion of firms tends to experience significant growth following investments. For this reason, dealing with SMEs appears to be risky from a banking sector perspective.

Overall, given the critical situation that many SMEs face, it is clear that alternative financing sources can help them find new ways of getting capital. Aghion, Fally and Scarpetta (2007) also recognized that financial development promotes firms' post-entry growth in sectors that depend more on external finance. More finance allows small firms to take advantage of growth opportunities especially in growing sectors where large firms would be predominant otherwise.

## 1.4 NPLs' impact

Non-performing loan management affects the general lending policy regarding SMEs. Although there is not a unique definition of a non-performing loan across the world, the definition given by the International Monetary Fund (IMF) in the compilation guide on financial soundness indicators (2004) is commonly accepted: "A loan is non-performing when payments of interest and/or principal are past due by 90 days or more, or interest payments equal to 90 days or more have been capitalized, refinanced, or delayed by agreement, or payments are less than 90 days overdue, but there are other good reasons to doubt that payments will be made in full". Simply put, NPLs are loans for which collection is uncertain both in terms of compliance with the deadline and the amount of capital outstanding.

In this regard, the impact of regulation plays a key role. Banks are starting to be even more risk-averse, and NPLs' in some countries could still interfere with the financial sector's recovery. This has severe implications for bank profitability and financial institutions' ability to provide loans to businesses.

Jimenez et al. (2012) found out that a high proportion of NPLs on banks' balance sheets considerably decreases the possibility that the bank will approve new loan applications. This is true specifically in SMEs' case since banks experience the so-called "flight to quality" phenomenon that favors less risky firms, namely large firms. During the 2008 financial crisis, when banks faced a reduction in capital, they decided to cut loans firstly to the SMEs sector.

However, lending is always a matter of supply and demand effect. It is down not only because the banking sector is less likely to lend to businesses under these circumstances but also as a result of the fact that the demand for credit lowers once many companies fail to repay their debt. Consequently, when the average level of NPLs in the banking sector rises, larger enterprises are often able to substitute bank finance with market financing. At the same time, SMEs are more likely to become credit constrained.

In terms of numbers, although the percentage of total gross non-performing loans and advances, defined as the ratio of the amount of non-performing loans in the loan portfolio with respect to the total amount of outstanding loans the bank holds, has lowered year on year by 0.6 percentage points from 6.72% in December 2014 to 2.78% in December 2019 (European Central Bank Statistical Data Warehouse, 2019), NPLs' still account for nearly €780 billion, according to the European Banking Authority.

Besides, as Beck, Demirguc-Kunt and Martinez Peria (2008) highlighted, in comparison with large enterprises, in comparison with large enterprises, banks charge SMEs higher interest rates and fees, with the implication that the ratio of non-performing SME loans is typically higher than the one of large companies. This trend is also confirmed by the European Banking Authority (EBA) report on non-performing loans (2019). Indeed, as can be noticed in Figure 1.4, the average NPL ratio for SMEs has always been the highest compared to the other categories.

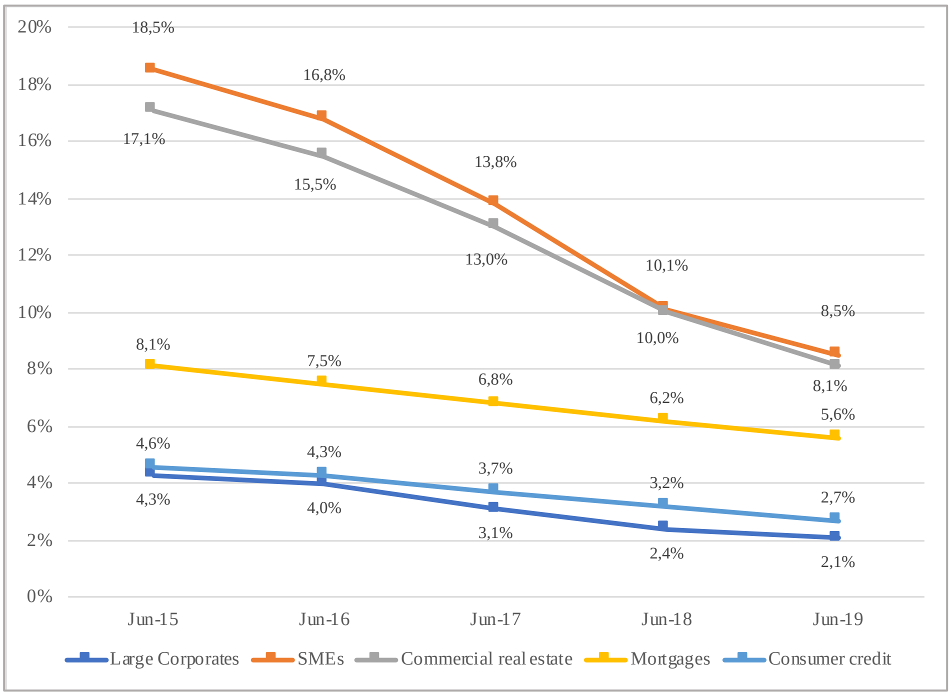


Figure 1.4: Trend in NPL ratios (%) by lending sub-segment — June 2015 to June 2019

*Source: EBA Report on Non-Performing Loans, 2019*

Furthermore, weaknesses in the asset quality are still present, particularly in the perspective of a debilitating environment and the constantly low productivity of the area. As weak banks are less willing to lend, a downward spiral of more weakened banks and credit supply contracting could undermine any possible economic recovery for the coming years. Reinhart and Rogoff (2009) measured that during a bank crisis, unemployment increases on average by seven percentage points, GDP declines by 9% and government debt expands by 86%.

Considering then the ability of banks to absorb future losses, the non-performing loan coverage ratio has an average of 46% among Member States (Statista, coverage ratio of non-performing loans and advances in Europe as of the 1st quarter 2020), meaning that less than the half of losses will be covered in the future.

Moreover, the Basel II rules' application was elaborated due to the impact of NPLs on banks. The Basel II introduced a mandatory rating for each firm applying for a loan on all banks in the European Union in January 2007 in order to avoid what later became the 2007-2008 financial crisis. As a result, the interest rates offered to low-rated firms have increased significantly because of higher equity requirements for such loans. SMEs were affected by these adverse conditions due to their relatively low equity ratios compared to large firms. The Basel III accords (2011) continued to pursue the Basel II capital requirements' aim to increase the resilience of banks during crises. The relationship with the bank system, an essential backbone for SMEs, has faced severe difficulties in offering reasonable loan conditions for poorly or non-rated SMEs.

## 1.5 SMEs' financing gap in Europe and Italy

The financing gap for small and medium-sized enterprises in the Eurozone declined from 6% of GDP in 2015 to 3% of GDP in 2019, i.e., around €400 billion, which is closer but still higher than the 2% of GDP in the United States, where business financing is much more diversified between bank credit and market financing (ECB, Allianz research, 2019). However, State heterogeneity remains, ranging from 0% in Spain and 3% in Germany, up to 14% in Belgium and 22% in the Netherlands (Figure 1.5).

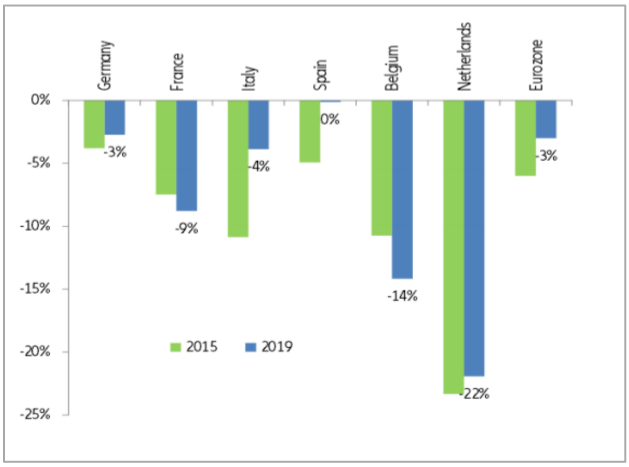


Figure 1.5: Comparison of the SME bank financing gap among Eurozone countries, % of GDP

*Source: ECB, Allianz Research*

From an analysis of the corporate debt finance in the 1999-2013 period, it appeared that in the US, 80% of corporate debt financing depends on capital markets, while in Europe, 90% depends on bank financing (Demary et al., 2016), suggesting a development of the European capital markets that can minimise credit shortages.

To better understand the possibility in the capital-based market, Bongini et al. (2019) studied data of non-financial European corporations of different sizes. They created a market suitability indicator (MSI), identifying firms considered suitable for market-based financing, i.e., debt securities and equity. The paper found out that an increase of 1% in firm sales raises the use of market-based instruments by 1.2%, thus confirming a positive relationship between the size of a company and its access to market-based finance (Figure 1.6). However, small firms suitable to access capital markets are no longer negligible, with a country average of 7.6%. Simultaneously, the value is even more significant for medium-sized firms, with 31.1% on average.

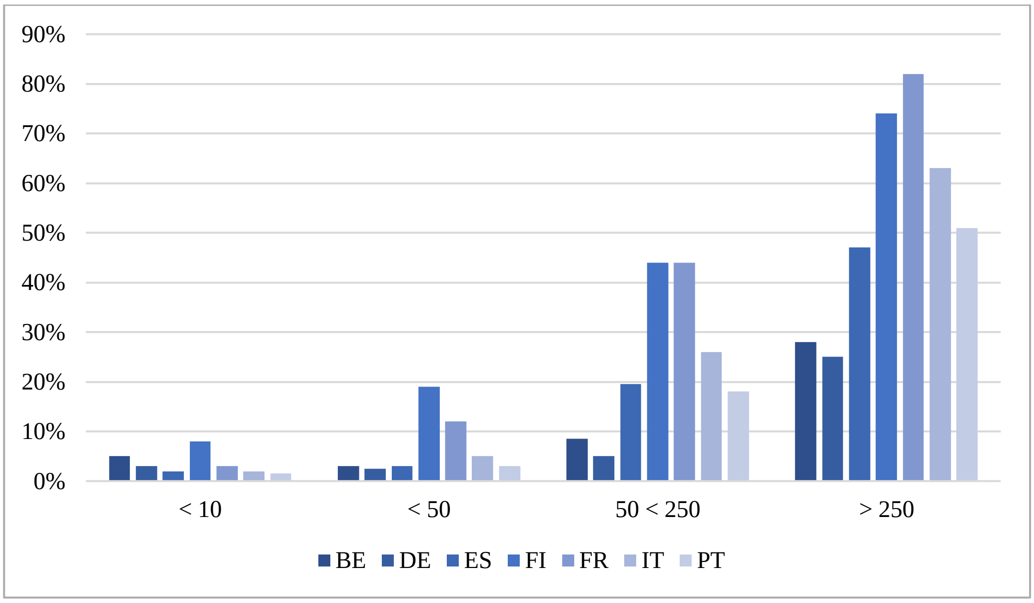


Figure 1.6: MSI mean value with country-variables by firm size

*Source: Bongini et al. (2019)*

Therefore, although the Euro area's capital market funding has increased since the crisis, external financing of the non-financial corporate sector in this area is dominated by bank financing (Kraemer-Eis et al., 2019). To corroborate this scenario, Figure 1.7 indicates the different levels of bank reliance for various countries.

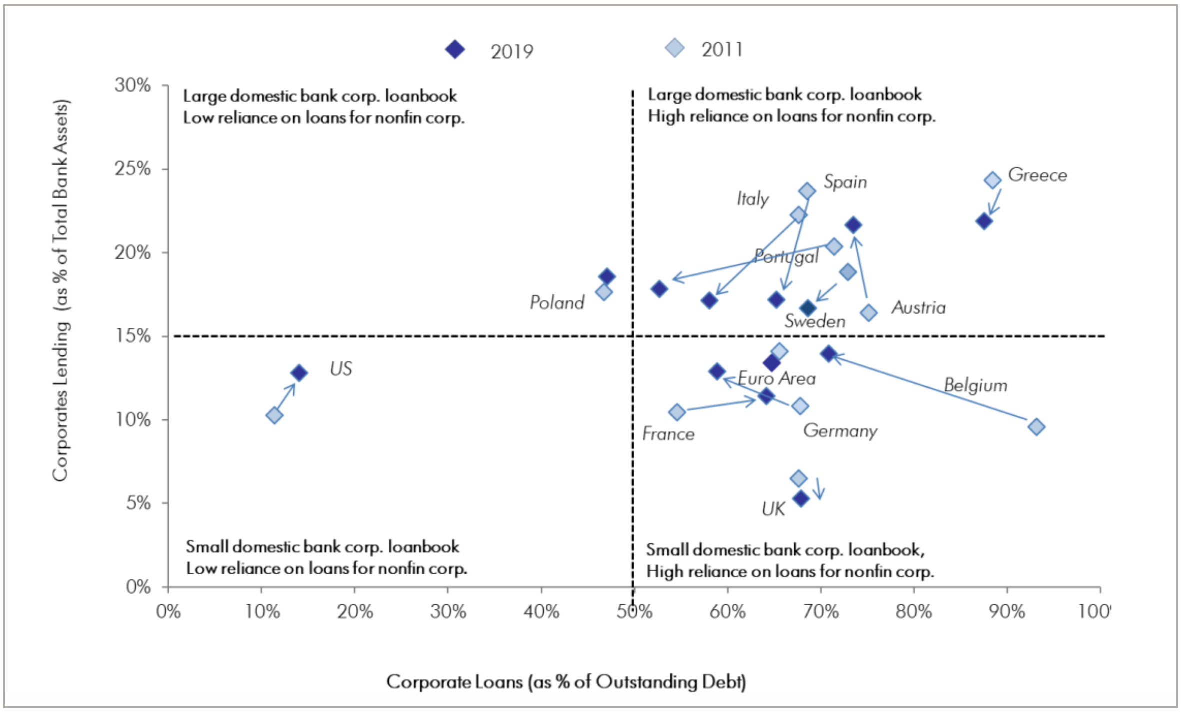


Figure 1.7: Reliance on bank financing by non-financial corporations (in percent)

*Source: Kraemer-Eis et al., 2019*

Associated with this, also the lack of financial resource diversification represents a concern. Lawless et al. (2015) recognised that SMEs tend to use two or three financing sources across all European countries and firms in peripheral economies are generally less financially diversified.

Additionally, Masiak et al. (2019) examined the financing patterns of European smaller firms. They found that they are less financially diversified than larger SMEs and more likely to use short-term debt through instruments such as credit lines and bank overdrafts.

Moreover, the ECB Survey on Access to Finance of Small and Medium Enterprises (European Commission and European Central Bank, 2019) showed important trends and information on SMEs' financing needs, along with information on their perceptions of current economic and financial conditions. First of all, Figure 1.8 exhibits that the share of SMEs reporting severe issues in accessing finance is high and varies significantly from country to country. For instance, Finland leads the ranking, with just 14% of its SMEs experiencing notable difficulties in accessing finance, while in Greece 45% of SMEs experienced that issue.

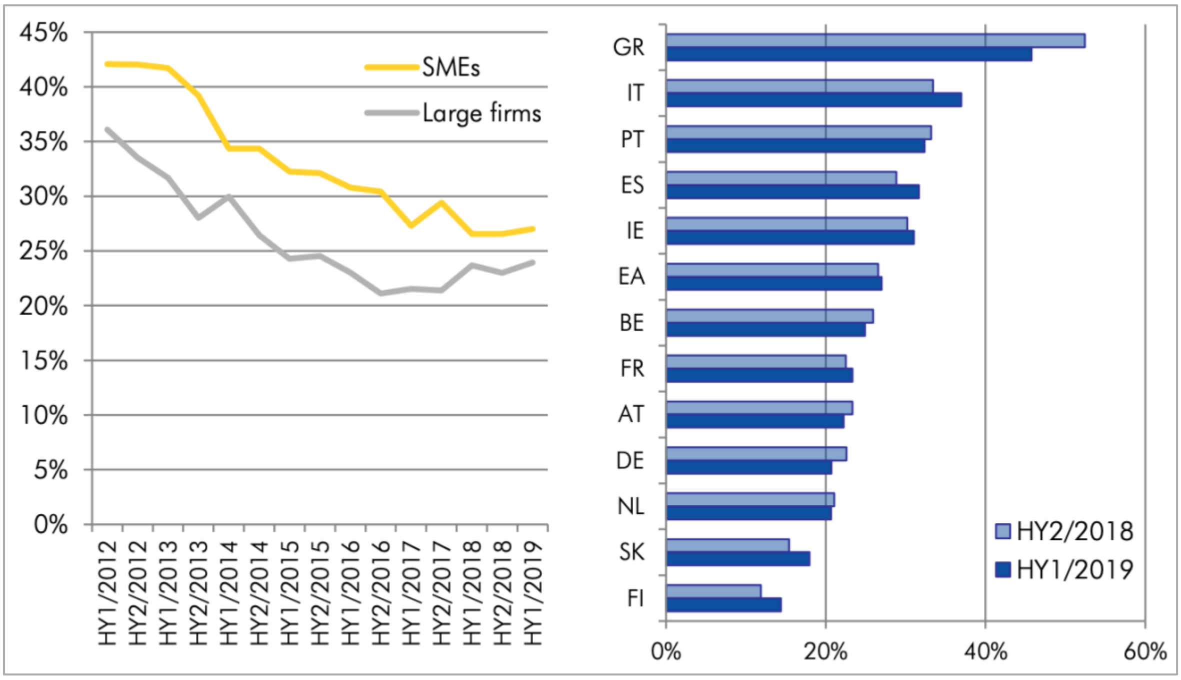


Figure 1.8: Percentage of Euro area SMEs ranking access to finance as a highly important issue

*Source: ECB SAFE, 2019*

Secondly, bank-related products remain the most relevant financing source for SMEs. In particular, bank loans, credit lines and leasing instruments are the most relevant among all the types of sources in 2019 (Figure 1.9). Even during the 2014-2019 period (Figure 1.10), the situation remained similar, with debt securities and equity capital that contributed only for a small percentage. Unfortunately, the SAFE survey does not include alternative financing instruments, such as crowdfunding, even though they have gained popularity in SMEs' financing mix over the past years.

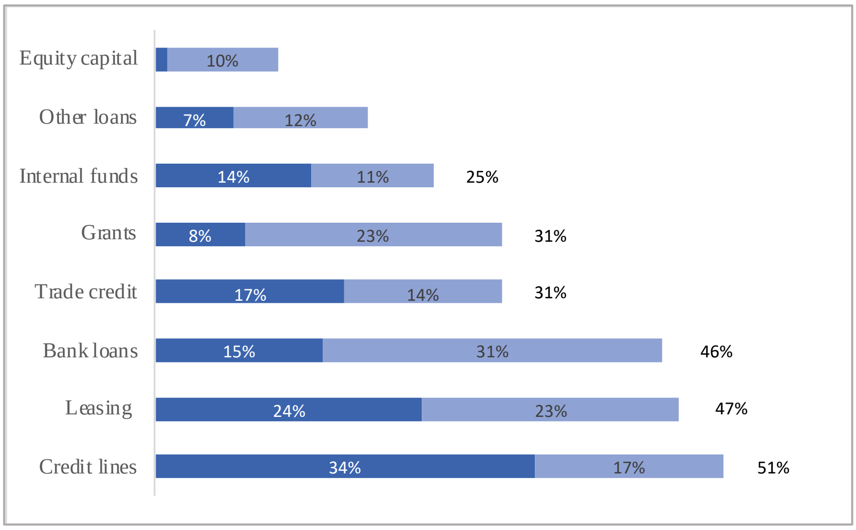


Figure 1.9: Relevance of financing sources by Euro area SMEs

*Source: ECB SAFE, 2019*

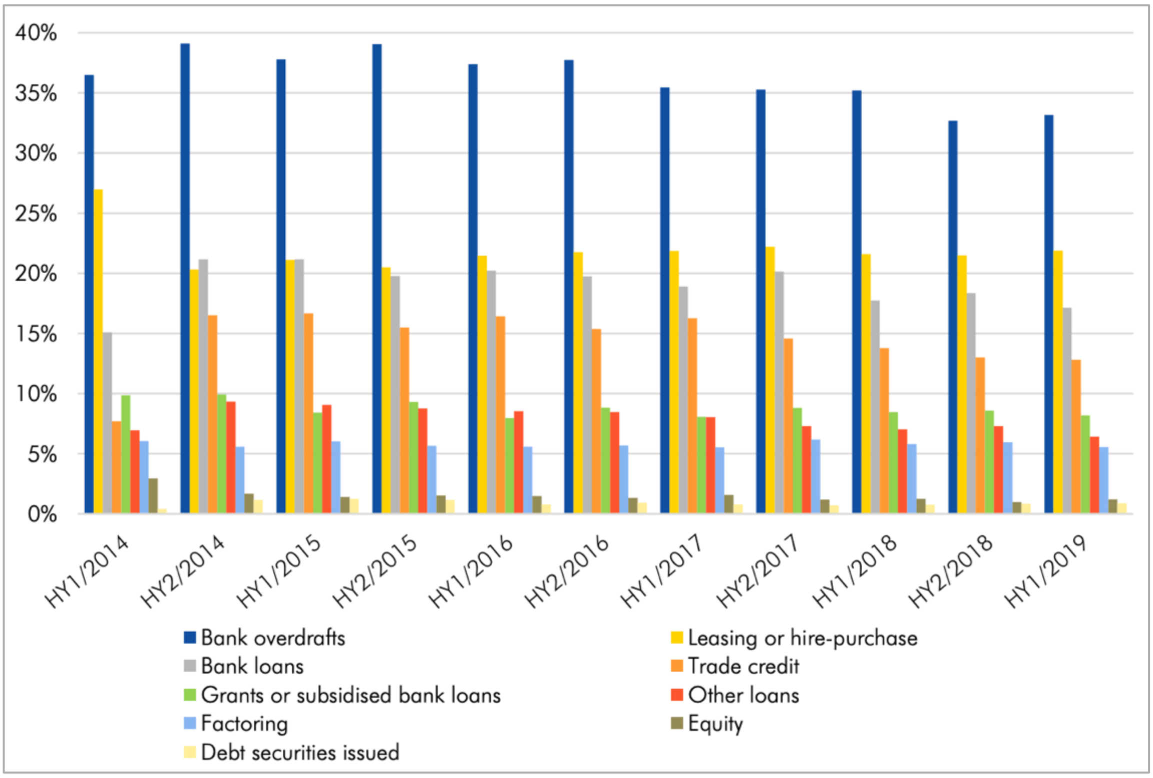


Figure 1.10: Use of external sources of financing by Euro area SMEs

*Source: ECB SAFE, 2019*

Going more in-depth with the analysis on bank loans, 24% of SMEs in the European Union actually applied for a loan. 4% did not apply because of fear of rejection. Of those SMEs who applied, 7% of bank loan applications were rejected. In addition to the problem of loan applications being rejected, 10% of companies who successfully applied received less than they applied for and 1% reported that they declined the loan offer from the bank because they found the cost unsustainable. This means that, in total, 18% of SMEs in the European Union did not manage to get the full bank loan they had planned for during 2019.

Besides, Figure 1.11 reveals some typical issues that characterize SMEs, underlined in the Chapter above, such as the absence of collateral and the high interest rate. The average interest rate between SMEs and large firms stood 0.92 percentage points in 2018 (OECD Scoreboard, 2018).

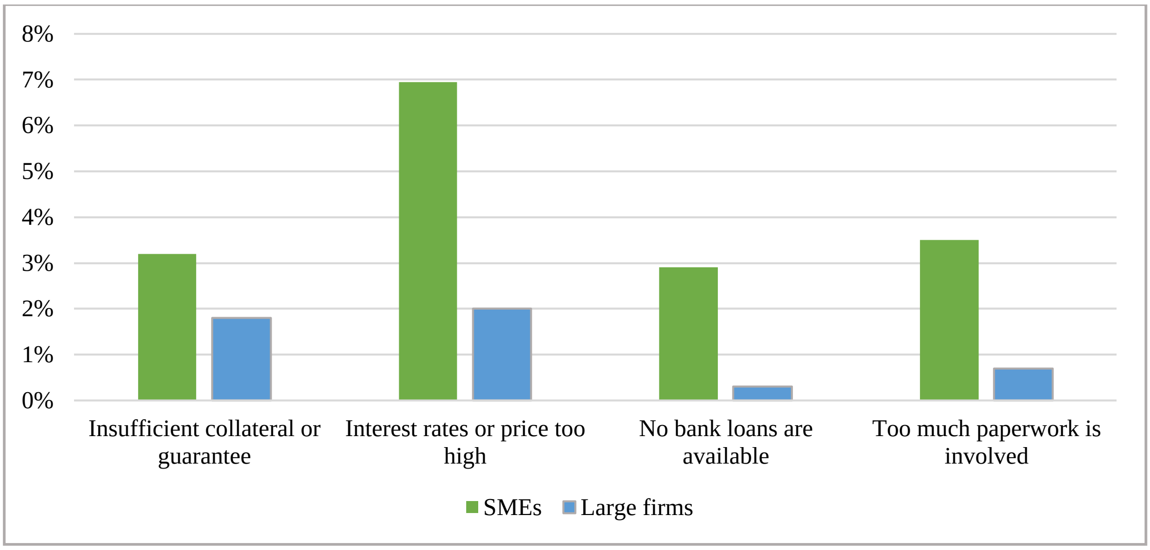


Figure 1.11: Reasons why bank loans are not a relevant financing source for Euro area SMEs

*Source: ECB SAFE, 2019*

As regards more in detail Italy, the annual report of Bank of Italy (Banca d'Italia, 2019) affirmed that the Italian level of bank lending has continued to increase even if there are significant differences between small and large firms' conditions, like financing costs. A substantial recovery in credit provision is also displayed in Figure 1.5, where the funding gap decreased from 11% in 2015 to 4% in 2019. Despite the credit increase, even to a sustained extent, the number of SMEs to which banks grant credit has continued to shrink, a sign of the intense attention paid by financial institutions to the provision of financial resources, but also of the possible recourse to alternative sources of financing that are also beginning to make their way into the SME segment (Cerved, 2019).

## 1.6 Covid-19 impact on European SMEs

On 12 January 2020, the World Health Organization announced that a new coronavirus (SARS-CoV-2), called Covid-19, had been detected in the Chinese city of Wuhan. Italy was the first European country in which the virus has been found to be widespread since 20 February. It is suspected that the virus was initially imported to northern Italy through international trade ties, after which it was able to spread through Europe and worldwide. According to official statistics, all countries in the world are still affected by the epidemic, although with different intensity levels. As of December 2020, the United States is the country with the highest number of infections (about 20 million cases), followed by India (10 million cases); Europe is also severely affected with more than 25 million registered cases.

The pandemic forced countries to impose strict lockdown measures that severely limited people's mobility, affecting social and economic activities. Restaurants and bars, as well as hospitality and event sectors, being potential sources of virus contagion, were the first establishments to close down. As a consequence, other retail shops and selected production facilities, where it was impossible to implement social distancing measures, soon followed. By July, the European borders were re-opened and the tourism sector was allowed to resume its activities. However, subsequent local outbreaks of the virus required local governments to reinstate blocking restrictions to varying degrees. By October, new daily cases reached a new record. Towards the end of 2020, the first vaccines became available for administration. Notwithstanding, daily cases are still rising, indicating that pandemic is still far from ending. From an economic point of view, the pandemic has generated and will generate effects on the real economy both in the short-term and long-term horizon. This crisis incorporates the worst features of all precedent crises: a simultaneous supply (like labour restrictions) and demand shock; domestic, regional, and global scope; a projected long duration; and a high degree of uncertainty. According to Global Economic Prospects, it is “the most adverse peacetime shock in over a century” (World Bank 2020a).

The economic slowdown has dramatically compressed foreign trades in goods, sharpening the decline in world trade due to its central role in global value chains. For instance, the consequences of the interruption of Chinese supplies have been significant for Italian companies, which import almost 6% of their intermediate goods from China (Banca d’Italia annual report, 2019). Companies have planned a remarkable downward revision of investment spending, resulting in a significant decline.

Furthermore, the pandemic is combined with outstanding uncertainty. The World Uncertainty Index revealed that the level of uncertainty associated with Covid-19 outperforms any other crisis experienced since at least 1960 (Loayza et al., 2020). Economic recovery will remain slow, as firms currently have a significant amount of idle capacity, and increased uncertainty about how demand will evolve in the short to medium term could further encourage them to delay investment decisions. Crisis severity and global uncertainty of the last sixty years are represented in Figure 1.12.

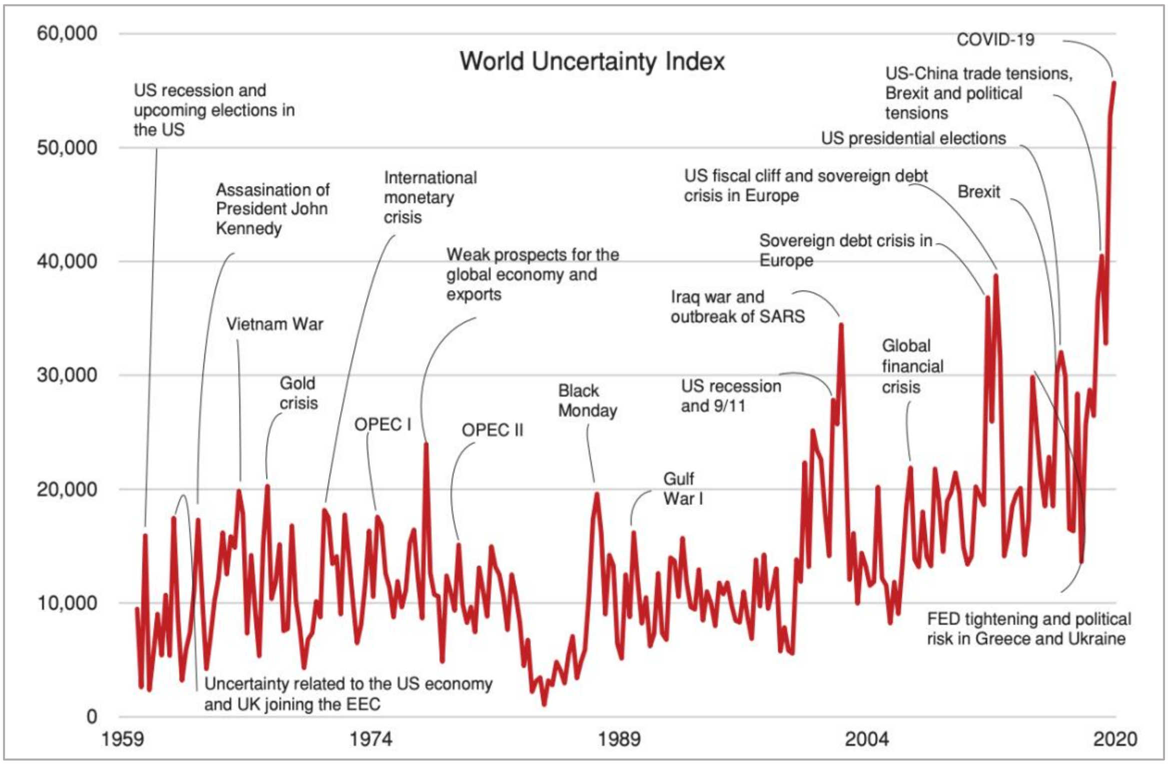


Figure 1.12: Crisis Severity and Global Uncertainty, 1959–2020

*Source: Loayza, 2020*

According to Eurostat, there was an annual GDP contraction of 6.8% for the euro area in 2020, the largest annual drop since the Second World War. Like its main European partners, Italy is expected to see a marked contraction of 8.8% of GDP in 2020. Although no country managed to avoid the negative economic impact of the crisis, the extent to which the pandemic devastated local economies differs considerably. Countries like Spain, Italy and France, which were among the first European countries where the virus escalated, suffered most, while the Nordic region, due to a lower population density, was less affected.

In order to tackle these circumstances, central banks have introduced extraordinary measures to expand the value of the assets eligible to guarantee monetary policy operations. The majority of countries have announced various support schemes to sustain the liquidity of companies.

For what concerns the economic and financial impact on SMEs, Covid-19 has generated demand and supply shocks. It has caused severe short-term funding problems for many firms necessitating substantial external finance sources. To have an idea of the extent of the emergency, Schivardi and Romano (2020) calculated the number of companies of all sizes that run into liquidity problems and the size of Italy's liquidity challenge. Under a mild scenario, they evaluated that 50,000 Italian companies would need liquidity support. Under a more pessimistic scenario (i.e., the crisis continues for the whole 2021), these estimates increase to 100,000.

Furthermore, Gourinchas and Kalemli-Özcan (2020) evaluated the impact of the Covid-19 crisis on business failures among SMEs for seventeen countries and measured each firm's liquidity shortfall during and after Covid, estimating an average SME bankruptcy rate of 12.1 percent in the absence of any policy intervention compared to 4.5 percent without the crisis.

The economic perspective seems particularly dire for SMEs. Almost all European SMEs (90%) reported losses in turnover connected with the shutdown, with around 2 in 10 SMEs losing 100% of their turnover for several weeks in a row (SMEunited, 2020). Moreover, 30% of total SMEs report that their turnover is at least an 80% loss, with an EU average of about 50% loss.

Several factors believe that SMEs are being affected disproportionately by the current crisis (Kraemer-Eis et al., 2020). On the supply side, their small-scale business models and limited workforce size make it more challenging to manage absenteeism, for example, when their workers are subject to mandatory quarantine measures. They also usually have less diversified supply channels, increasing their exposure to supply chain disruptions. SMEs are also under-equipped to deal with social distance requirements. On the demand side, SMEs account for a disproportionate share of companies in those sectors that have been hit hardest, such as the accommodation and construction sectors.

In addition, European SMEs are experiencing severe problems in accessing external sources of finance after several consecutive years of improvement, thus confirming the existence of a structural SME finance gap. According to the SAFE (April to September 2020), changes in the macroeconomic outlook were perceived to have negatively affected access to finance (-41%, from -30%). The deterioration was widespread across all euro area countries. Regarding the European bank lending scenario, the ECB bank lending survey (Q3, 2020) showed a continued upward impact of the coronavirus pandemic on firms' loan demand, primary driven by emergency liquidity needs. According to SMEunited, about 4 in 10 SMEs reported experiencing liquidity issues as a direct consequence of the economic lockdown (SMEunited, 2020a).

Banks also reported a net tightening of credit standards for SMEs' loans, indicating risk perceptions related to the deterioration in the general economic and firm-specific situation as the main factor contributing to the tightening. Therefore, even if most of the loans across Europe are insured by the State's intervention, SMEs find several obstacles in accessing the credit they need. Specifically, the European Association of Craft, Small and Medium-Sized Enterprises (SMEunited, 2020) identified several problem areas, such as procedural difficulties coming from the requirements of guarantee schemes provided by intermediaries, which does not correspond to the needs of banks and/or SMEs: the fact that public schemes require a massive amount of information and end-up in highly complicated application procedures; the fact that banks ask for additional fees and use the same approach towards risks as before the crisis, leading to a negative assessment with many rejections or higher interest rates.

In conclusion, nowadays firms need financial instruments that would support them in a context characterised by high uncertainty. Alternative market players can potentially play an important role in enhancing access to finance for SMEs and offer the flexibility, reliability, accessibility and affordability that small businesses seek.

# CHAPTER 2

# ALTERNATIVE FINANCE AND CROWDFUNDING MARKETS

In this Chapter, the main features of alternative finance and crowdfunding environment will be outlined to understand better which opportunities and challenges the minibonds' placement on participatory investment platforms offer. In particular, at first, the reasons why alternative finance is a key element of the financing context will be described. Then, the crowdfunding background will be further explored. To conclude, an overview of the European situation will be provided.

## 2.1 Definition and taxonomy of alternative finance

The term "alternative finance" refers to financial products, services and processes established outside the conventional, regulated banking and capital market sectors through innovative and generally online networks, instruments and systems. It can be described as an "umbrella" definition for several financial instruments that have some attributes in common (Prochazkova et al., 2018):

- their stronger recognition came after the last global financial crisis;
- they show up a sign of innovation often related to IT development;
- a majority of them is available online;
- they are very often accepted as a useful financial tool for various entrepreneurs, micro-enterprises, SMEs or NGOs;
- they serve business-to-business, consumer-to-consumer and consumer-to-business activities.

The alternative finance market has overgrown rapidly since the financial crisis. It is expected to grow even faster in the short term due to continuous improvements in online connections' pervasiveness and accessibility.

Alternative finance can also be considered as a progressive element, i.e., a topic that modifies its fundamental elements over time. This is the reason why there is not a unique taxonomy accepted all around the world. However, Table 2.1 displays the 14 alternative finance instruments (and their related functioning) identified based on the Cambridge Centre for Alternative Finance, which is probably the most recognized authority in this segment. The

table is updated at the last available report on alternative finance called "The Global Alternative Finance Market Benchmarking Report" (2020).
To confirm what has been said above, i.e., the fact that alternative finance is an evolving context, it is interesting to notice that in 2015 the Cambridge Centre for Alternative Finance could classify only nine categories of financial instruments.
As highlighted by Osservatorio Entrepreneurship & Finance by Politecnico di Milano (2018), it is possible to add to this taxonomy the Initial Coin Offerings (ICOs), i.e., the new frontier of digital token placement on the internet thanks to blockchain's emerging technology, and the private equity and venture capital, i.e., the venture capital financing provided by professional investors.

| Category | Business Model | How it works |
|---|---|---|
| **P2P Marketplace Lending** | Consumer Lending | Individuals and/or institutional funders[5] provide a loan to a consumer borrower |
| | Business Lending | Individuals and/or institutional funders provide a loan to a business borrower |
| | Property Lending | Individuals and/or institutional funders provide a loan, secured against a property, to a consumer or business borrower |
| **Balance Sheet Lending** | Consumer Lending | The platform entity provides a loan directly to a consumer borrower |
| | Business Lending | The platform entity provides a loan directly to the business borrower |
| | Property Lending | The platform entity provides a loan, secured against a property, directly to a consumer or business borrower |
| **Invoice Trading** | Invoice Trading | Individuals or institutional funders purchase invoices or receivables from a business at a discount |
| **Securities** | Debt Based Securities | Individuals or institutional funders purchase debt-based securities, typically a bond or debenture, at a fixed interest rate |
| | Minibonds | Individuals or institutions purchase securities from companies in the form of an unsecured bond which is 'mini' because the issue size is much smaller than the minimum issue amount needed for a bond issued in institutional capital markets |
| **Investment-based** | Equity-based Crowdfunding | Individuals or institutional funders purchase equity issued by a company |
| | Real Estate Crowdfunding | Individuals or institutional funders provide equity or subordinated-debt financing for real estate |

[5] "Funder" is the provider of funds, "founder" is the borrower.

| | | |
|---|---|---|
| | Profit Sharing | Individuals or institutions purchase securities from a company, such as shares, and share in the profits or royalties of the business |
| **Non-Investment-based** | Reward-based Crowdfunding | Backers provide funding to individuals, projects or companies in exchange for non-monetary rewards or products |
| | Donation-based Crowdfunding | Donors provide funding to individuals, projects or companies based on philanthropic or civic motivations with no expectation of monetary or material |
| **Other** | | The research team recorded volumes raised through other alternative finance models, including Community Shares, Pension-led Funding, crowd-led-microfinance and other model's which fall outside of the existing taxonomy |

Table 2.1: Taxonomy of alternative finance model

*Source: CCAF, 2020*

### 2.1.1 The role of alternative finance

The employment of alternative finance could be a solution to the SMEs' financing complications, as a complementary or replacement option to the traditional suppliers of finance (banks and financial markets). It widens financing options, and above all, provides capital to constrained enterprises. Alternative resources may help address some of the most critical priorities for the growth of the financial sector, removing barriers to finance for micro, small and medium-sized enterprises, expanding consumer finance opportunities, and stimulating competition in financial services. Promoting competition is crucial because it improves financial inclusion in the markets. For instance, Owen and Pereira (2018) used panel data from 83 jurisdictions over a span of ten years and observed that more competitive systems result in higher financial inclusion levels.

Alternative financial providers have several advantages over conventional financial institutions, including streamlined and online processes that allow lower funding costs (risk being equal). Technology platforms increase the efficiency of transactions and often integrate information from non-traditional channels such as social media, payment history such as e-commerce sites, and insights from existing customers familiar with the borrowing firms, reducing information asymmetries. Simultaneously, there is justifiable concern about risks, including those related to integrity, sustainability of operations and consumer protections (World Bank and CCAF, 2019).

Moreover, applying for capital at traditional banks can be a long-drawn process, whereas different alternative financing sources are renowned for their application processing speed. The lending model offered by mainstream banks no longer meets the needs of many agile SMEs. A key benefit of alternative finance is its agility, i.e., its ability to offer flexible funding arrangements that can be tailored to individual businesses' needs (Wardrop et al., 2015).

According to the results of the Global Alternative Finance Regulation Survey (World Bank and CCAF, 2019), policymakers seem to be keen to explore the promise of alternative finance. Figure 2.1 shows that a clear majority is optimistic about its potential to improve SMEs' and consumers' access to finance (79% and 65% respectively) and stimulate competition in financial services (68%).

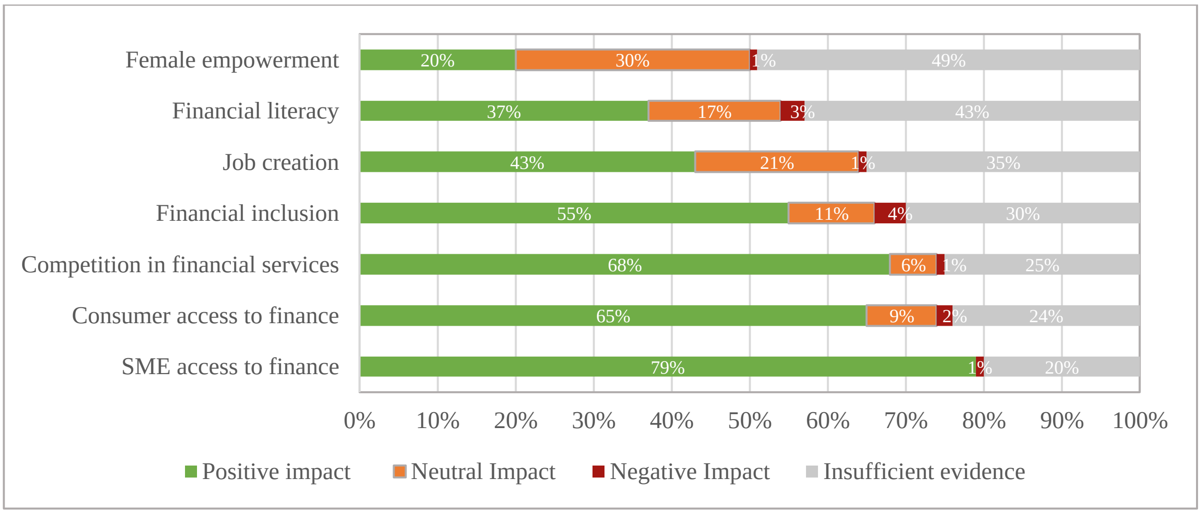


Figure 2.1: Potential impact of Alternative Finance

*Source: World Bank and CCAF, 2019*

## 2.2 Introduction on crowdfunding

Crowdfunding is an innovative financing model through which the promoter of an economic or social initiative addresses the crowd using the web to obtain financial resources. From a terminological point of view, crowdfunding refers to the financing of projects by a large number of investors ("crowd") through cash donations ("funding") made through the internet. Indeed, the terminological aspect presupposes a real cultural "revolution", which can be traced back to a continually expanding reality in the socio-economic and financial systems of the world, in which collaborative and participatory processes are the key strengths that tie together the activities of many different actors who voluntarily commit themselves to support the efforts of people and organisations with high creative potential but lacking the necessary funds to realise their ideas. These new ways of financing are becoming established worldwide, thanks to the diffusion of digital technology, allowing the creators of a project to attract financial resources capable of generating wealth, favoring the most deserving initiatives. In this way, crowdfunding contributes to the process of "democratisation of finance" advocated, following the effects of the 2007-2008 crisis (Schiller, 2012).

The idea of crowdfunding can be seen as part of the broader notion of crowdsourcing, which uses the "crowd" to collect ideas, feedback and solutions to develop corporate activities. The keyword “crowdsourcing” first appeared in Wired Magazine in 2006 (Howe, 2006). However, a widely accepted definition of crowdfunding does not exist. There was a first holistic attempt by Lambert and Schwienbacher (2010), who presented this definition: “An open call, essentially through the Internet, for the provision of financial resources either in form of donation or in exchange for some form of reward and/or voting rights in order to support initiatives for specific purposes”. This definition highlighted three aspects:

- the open call, meaning that the contents are public;
- the existence of a digital-based platform in which the entrepreneurs post their projects;
- the fact that the provision of resources happens in exchange for a donation or different forms of reward (voting rights like some shares, or pre-purchase of the product).

Nevertheless, Butticè et al. (2015) realised that it was necessary to update the definition, underlining the fact that the essential inputs to describe a phenomenon are the objects, the actors involved and the boundaries of the transactions. Specifically, they figured out that a comprehensive definition has to highlight the three main aspects of crowdfunding:

- the provision of feedback from crowdfunders;
- the crucial role of the platforms;
- the existence of several models.

As a consequence, they proposed this new definition: “Crowdfunding is the act of collecting monetary contributions together with feedback and suggestions from a crowd of voluntary contributors (either in form of donation or in exchange for some forms of reward) through an open call on enabling web platforms.”

In the literature, it is evident that a considerable interest is reserved to the role that crowdfunding initiatives can play in the development of start-ups and small and medium-sized enterprises (SMEs), including innovative ones. The definition given by Mollick (2014) points out the role of crowdfunding as an alternative financing model for SMEs: “Crowdfunding refers to the efforts by entrepreneurial individuals and groups – cultural, social, and for-profit – to fund their ventures by drawing on relatively small contributions from a relatively large number of individuals using the Internet, without standard financial intermediaries.”

Looking at this new alternative financing source, some benefits are expected by the crowdfunding campaign's creators (Gerber et al., 2012). They encompass fundraising, validation, connection with others, replicating successful experiences of others, and expanding awareness of work through social media. On the other hand, funders are motivated to participate in order to pursue rewards, support creators and causes, and enhance connections with people in their social networks. A chance to test marketability, more press coverage and improvements for communities through both local and global means are other expected advantages (Valanciene and Jegeleviciute, 2013).

### 2.2.1 Crowdfunding models

The typologies of crowdfunding that can be implemented are different and vary on the basis of a number of distinct features. Table 2.2 displays the four main typologies and their characteristics. Donation-based crowdfunding and reward-based crowdfunding belong to the non-investment category, while equity-based crowdfunding and lending-based crowdfunding to the crowdinvestment category.

| Type | Donation-based crowdfunding | Reward-based crowdfunding | Equity-based crowdfunding | Lending-based crowdfunding |
|---|---|---|---|---|
| **Motivation of funder** | Intrinsic and social | Intrinsic, social and extrinsic | Financial gain | Social and/or financial |
| **Type of contribution** | Donation | Pre-order | Investment | Loan |

| | | | | |
|---|---|---|---|---|
| **Expected return of funder** | Intangible benefits | Tangible and intangible benefits | Return on investment | Return on investment |
| **Main focus** | Worthy cause or philanthropy | Products for early adopters/gifts | Start-ups and SMEs | Short-term borrower |
| **Complexity of process** | Very low | Low | High | Medium |

Table 2.2: Typologies of crowdfunding

*Source: Hossain and Oparaocha, 2017*

*Donation-based crowdfunding*

This type of crowdfunding is used by those who desire to make charitable donations as part of raising awareness for certain environmental, social or cultural issues, without receiving a good or monetary reward, but only moral recognition for having been among those who contributed to the financing of the cause or project. The emotion drives donors that the campaign has generated for them. Social causes such as the support for third world populations, people with disabilities or the emergence of socially useful structures characterize by far the donation-based model. It is used mainly by non-profit organisations and charities, and by associations and institutions interested in financing socially useful activities (cultural events, creation of community facilities, educational initiatives, etc.). Logically, the risk associated with donation-based crowdfunding is low since the founder is not expected to provide a return, nor the donor expected one.

*Reward-based crowdfunding*

Reward-based crowdfunding consists of an "exchange" between the creator and the backer of the project. This model involves participating in financing a project in change for a prize, an award, an object made with the capital raised or even more complex prizes. The reward's value is often lower than the contribution made because the goal for a contributor is not to receive rewards but to support a project he or she believes. Typical products and services financed with this payment method are innovative, such as technological devices.

However, in this case, some risks arise from the fact that the founder may be unable to deliver the proposed reward for some reasons. Entrepreneurs and start-ups particularly appreciate this type of crowdfunding since it allows businesses to start with orders already on their balance sheets and with guaranteed cash flow, as well as to carry out market analysis and stimulate consumers' curiosity about their innovative products or services even before the release on the market (De Luca, 2015).

*Equity-based crowdfunding*

This typology provides investment financing in form of risk capital (equity). With equity crowdfunding, companies have the opportunity to raise new capital, offering in return shares in the ownership of the company and the possibility to participate in profits and value creation in the long term. Therefore, the investors assume the status of partner and other equity and administrative rights. At the same time, they also accept the possible risks caused by the activity of the issuer.

Equity crowdfunding entails a great deal of business and legal considerations from both intermediary crowdfunding organizations and investors, as it falls into the area of securities' exchange. Legislation for equity-based crowdfunding is being developed all around the world.

Instead of equity, in some cases, investors are offered a financial obligation like a bond, a minibond or a debenture. In this situation, they deal with debt-based securities, which do not give any ownership stake in the company. By buying a debt security, enterprises lend money for a set period and charge interests to investors.

*Lending crowdfunding*

Lending crowdfunding defines financing as an investment in the form of a loan. With lending crowdfunding, the investment is made through the stipulation of a contract for the subscription of a loan, which provides for the repayment and remuneration of the capital with the recognition of an interest rate. There is the idea of acting as the primary alternative channel to bank credit at the heart of lending crowdfunding, guaranteeing sums of money at lower interest rates than traditional loans.

By referring to Table 2.1, it is possible to include in this category the P2P or Marketplace lending (consumer, business and property) and the part of the Real-Estate crowdfunding that is made in form of debt. Instead, invoice trading is usually treated as a separate category since there are different ways to organize the invoice trading procedure (marketplace, direct purchase or supply chain finance). Also the Balance Sheet Lending is considered a separate segment since the lending platform directly retains consumer or business loans, using funds from the platform provider's balance sheet. Therefore, these platforms act as more than just intermediaries, originating and actively financing loans. The responsibility of financial loss if the loan is not repaid is with the platform provider. In this regard, the platform operator looks more like a non-bank credit intermediary (Bank for International Settlements and Financial Stability Board, 2017).

In recent times, several public sector collaborations with crowdfunding sites have been formed in different Member States. Concerning such partnerships, new crowdfunding forms have emerged:

- Civic crowdfunding: "a subcategory of crowdfunding through which citizens, often in collaboration with government, propose, fund and deliver projects that aim to provide a community service or deliver public value through local area improvement projects" (Baeck et al., 2017). The notion of civic crowdfunding is not necessarily linked to a typology (donation, reward, lending, equity) but rather to the result and the campaign's geographical coverage;
- Match-funding: "a funding scheme where resources collected by crowdfunding campaigns in specific areas are topped-up with an additional share of resources coming from public sector or private entity" (European Crowdfunding Network, 2017). It aims to combine different funding sources rather than focusing on specific sectors.

Furthermore, another form called royalty-based crowdfunding appeared in the past years. The reward associated is monetary and consists of a profit or revenue sharing associated with the investment, but without any title to the project or the capital's repayment.

Other taxonomies exist basing on:

- Money collection scheme:
    - All or nothing: it estimates that the project will be carried out only if the desired objective in monetary terms is achieved within a set time frame. Otherwise, the campaign will not be successful, and the money raised will be returned to the investors. Sometimes it is used as a sort of signal for the contribution, meaning that the entrepreneur believes in the project and will

raise more money in the future. The entrepreneur is able to receive information about the market demand as well;

    - Keep it all: it assumes that the offering issuer retains the full amount collected regardless of whether the target has not been met.

- Timing:
    - Ex-ante crowdfunding: the crowdfunding campaign is performed before the making of the product (investment is high, and a large of money is needed at the beginning);
    - Ex-post crowdfunding: the crowdfunding campaign is performed after the making of the product.
- Presence or absence of an intermediary:
    - Indirect crowdfunding: there is a platform as an intermediary. Almost all the campaigns;
    - Direct crowdfunding: there is no platform as an intermediary, like in the case of the presidential election of Obama in 2008, where some citizens contributed directly to Obama. This structure is not relevant anymore since nowadays there is always an internet platform.

Lastly, hybrid models exist, which offer enterprises the opportunity to combine elements of more than one crowdfunding type.

### 2.2.2 Key elements of crowdfunding

Some typical crowdfunding features distinguish it from other forms of funding:

- Active engagement and participation of the individual-investor: the funder is usually a somewhat entrepreneurial person, with a specific appetite for excitement, as much as he or she understands the potential of the project and has the intrinsic urge to be a part of the group that is going to make it happen;
- Importance of the emotional factor: often, the funder does not own the relevant resources to finance a project in full and the competencies that may be found in a venture capitalist or a financial services expert. What is important, though, is the perceived emotional rate of return, where the value is not only the probability of future financial gains but also the engagement in a promising project close to the funders' interests;

- Higher level of transparency and trust: crowdfunding is based on the relationship that the campaign's proponent and its backers establish among themselves and on the transparent exchange of money and information taking place on an online platform. Trust is part of the central crowdfunding framework since crowdfunding requires the channeling of uncollateralized funds to finance a particular project via a non-banking intermediary;
- Visual communication: the use of visual media, such as images, technical sketches, photographs, and even interactive chat forums, are the crucial elements of a successful way to present a project on a platform. Therefore, it helps to bridge any gaps in the understanding between the campaign and the investors. The project's objectives become clear, and the value proposition helps build a fan base and increase the enthusiasm, support, and commitment of the various stakeholders;
- Role of the Internet and social media: crowdfunding is made through internet platforms and is enabled by Web 2.0 technologies (digital interactivity tools, e-payment systems, …). Social media also helps to spread awareness for crowdfunding campaigns and attract interest (Colombo et al., 2015);
- Non-financial benefits: as previously said, crowdfunding, in general, enables companies to interact with customers in a new way that provides valuable feedback without cost. It offers a chance to test the marketability; firms can see if individuals and other players share the beliefs and values in the project or concept.

### 2.2.3 Crowdfunding regulations in Europe

A series of European directives on crowdfunding emanated by the European Commission (among others the most relevant are Prospectus Regulation[6], AIFMD Regulation[7], MiFID II Directive[8], Payment service Directive[9]) have been transcribed into national implementation laws by the European Member States, who have developed in turn their internal national regulations, depending on the characteristics of local markets and investors. On the one hand, this mechanism has allowed countries to better satisfy the different bodies involved in the crowdfunding procedures. On the other hand, it has created a fragmentation between different States' legislation, preventing them from collaborating and building offers at a

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[6] Regulation (EU) 2017/1129 of the EP and of the Council of 14 June 2017.
[7] Directive 2011/61/EU of the EP and of the Council of 8 June 2011.
[8] Directive 2014/65/EU of the EP and of the Council of 15 May 2014.
[9] Directive 2015/2366/EU of the EP and of the Council of 25 November 2015.

cross-country level. Frequently this situation has also generated uncertainty, discouraging possible funders to invest in foreign campaigns.

However, donation- and reward-based crowdfunding does not require platforms to be supervised by financial authorities or comply with investor protection regulation. Therefore, the "fragmentation" problem mainly concerns the investment-based platforms, i.e., debt- and equity-based platforms.

To overview the current complexity of the different regulatory frameworks that exist at a national level, a table elaborated in a research paper by Cicchiello (2019) reports the scenario in the four leading European countries.

| | Regulation | Scope | Financial instruments | Crowdfunding service providers | Authorisation and registration | Maximum offers (Prospectus exemptions) | Maximum investment limits |
|---|---|---|---|---|---|---|---|
| **United Kingdom** | The FCA's regulatory approach to crowdfunding over the internet, and the promotion of non-readily realisable securities by other media - PS14/4 of March 2014 | Securities and lending | Equities and debt securities, transferable and non-transferable. Non-readily realisable securities (NRRS) only to retail investor certified as sophisticated investors, high net worth investors, and advised investors | Entities authorised by the FCA to carry out the regulated fundraising activities in the UK | Authorisation by FCA | Lower than € 5 million in a period of 12 months | 10% of the net investable assets for non-sophisticated investors; No investment limit for sophisticated investors, high-net-worth investors, and retail clients who receive an |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | | | | | | investment advisory or investment management service from an authorized person |
| **France** | Ordonnance n. 2014-559 du 30 mai 2014 relative au financement participatif | Securities and lending | Since the "Loi Macron" preference shares with voting rights (ordinary shares only previously), convertible bonds (straight bonds only previously), and the minibonds | Intermediaire en Financement Participatif (IFP) and Conseiller en Investissement Participatif (CIP) | Authorisation by AMF and registration in the "Registre Unique des Intermédiaires en Assurance, Banque et Finance" managed by ORIAS | € 2.5 million per year per project (€ 1 million previously) | No investment limit per project and per year. Limit of € 2,000 (€ 5,000 for interest-free loan) per project and per year for lenders |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Spain** | Ley 5/2015, de 27 de Abril, de Fomento de la Financiación Empresarial (LFFE) | Securities and lending. | Ordinary and preferential shares, bonds, limited liability company's shares and other transferable securities | Plataformas de Financiación Participativa, (PFP) | Authorisation and registration by the CNMV | € 2 million per project, per platform, in a given year. €5 million when projects are targeted only to accredited investors | No investment limit for accredited investors. Limit of €3.000 per project and maximum €10.000 per year for non-accredited investors |
| **Italy** | Decreto Legge n.179/2012 (Decreto Crescita 2.0) and Decreto Legge n.3/2015 | Equity | Shares or units of small and medium-sized businesses, social | Entities authorised to provide investment services and subject to MiFID rules (ipso iure managers) and | Authorisation and registration in the ordinary section of the Register of the portals' managers by CONSOB. | Lower than € 5 million per year (€ 100,000 previously) | No investment limit. Exemption from MiFID rules for single investment less than |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | (Investment Compact) | | enterprises and mutual investment bodies or other joint stock companies that invest mainly in small and medium-sized businesses | other legal entities authorised ad hoc by CONSOB | Ipso iure managers do not need authorisation but must be enrolled in the special section of the Register | | €500 (natural persons) or €5.000 (legal entities) and overall investments during a year less than €1.000 (natural persons) or €10.000 (legal entities) |

Table 2.3: Regulatory framework of crowdfunding in the United Kingdom, France, Italy and Spain

*Source: Cicchiello, 2019*

From the table, it seems evident that regulations differ in terms of contents, timing and requirements. As an example, in 2012, Italy was the first Member State to regulate equity crowdfunding in Europe.

Moreover, as stated by the EIB (2020), only five Member States (Belgium, France, Germany, Italy and Spain) have structured their regulations by including an exemption for crowdfunding into their existing legal frameworks, which relieves crowdfunding from applying the general financial regulation. Other Member States decided for either an explicit Crowdfunding Act, providing a legal basis for equity/lending-based crowdfunding, including provisions for crowdfunding stakeholders (Austria, Finland and Lithuania), or for specific crowdfunding provisions complementing the existing regulation, mainly by adding administrative arrangements announced by the respective financial supervisory authorities (the Netherlands, Portugal and the UK). In the remaining 17 Member States, current financial services regulation also covers the crowdfunding segment.

Against this backdrop, the European Union has initiated the process towards establishing a pan-European regulatory regime in March 2018, publishing a proposal for a Regulation on European Crowdfunding Service Providers (ECSP). Essentially, the proposal creates a European passport for crowdfunding platforms that want to operate in one or more European countries. It is a regulatory action that unifies investor protection and portal management rules for all those platforms that decide to withdraw their national licence in order to obtain a licence issued by the European Financial Markets Authority (ESMA). Hence, a European crowdfunding scheme under the brand name of a European crowdfunding service provider, autonomous and on a voluntary basis, which platforms would choose when they desire to conduct cross-border activities, would leave national crowdfunding frameworks unchanged, while providing an opportunity for platforms wishing to extend their operations at wider levels and operate cross-border.

One of the most recent regulations about ECSPs was approved by the European Parliament on 5$^{th}$ October 2020. The new rules aim to help crowdfunding services to function smoothly in the internal market, promote cross-border business financing in the EU and increase the transparency and the investors' protection against possible risks. The law establishes that an investment information sheet (KIIS), drawn up by the project owner, is distributed to all participating investors and lenders for each crowdfunding offer or platform. The crowdfunding service providers have to supply clients with clear information on the risks and financial burdens they may incur, including insolvency risks and project selection criteria. The set of criteria applies to all ECSPs up to offers of €5 million, calculated over a

12-month period for each project owner in funding. Each ECSP also has to seek authorisation from the competent national authority (NCA) of the Member State in which it is located. Through a notification procedure in a Member State, the ECSP can deliver its services across borders. Supervision is carried out by national competition authorities, while the European Securities and Markets Authority (ESMA) coordinates cooperation between EU countries.

At the time of writing, technical details about ECSP are still developing, all supporting the underlying concept that it will lead to a reduction of fragmentation.

Overall, regulation is still a key challenge for the continued development of crowdfunding in Europe. This was also underlined by the 4th European alternative finance benchmarking report (2019). In the survey, in 2019 (similar to 2016 and 2017), the model type with the highest amount of dissatisfaction about existing regulations was equity-based crowdfunding. Over half of the equity crowdfunding platforms considered regulations as either excessive (53%) or lacking and needed (7%).

## 2.3 Alternative finance and crowdfunding context in Europe

To better qualify and have a general view of the current trends and opportunities in the alternative finance market, it is interesting to analyse some data reported in the Global Alternative Finance Market Benchmarking Report (CCAF, 2020). The data disclosed refers to the last year available, i.e., 2018.

First of all, it can be observed that in 2018 the global alternative finance market through more than 500 platforms facilitated USD 304.5 billion in transaction volume. However, China alone accounted for 71% of global volume, followed by the US (20%) and the UK (3%). The European countries (excluding the UK) generated all together a value similar to the one generated by the UK on its own. However, if we look at the alternative finance volumes per capita by country, we find four European States (including the UK) in the top five of the high-income category. More generally, most countries with relatively high volumes in per capita terms are predominantly European (Table 2.4).

| Ranking | Country | Volumes per capita |
|---|---|---|
| **1st** | USA | $186.88 |
| **2nd** | UK | $155.93 |

| | | |
|---|---|---|
| **3rd** | Latvia | $132.12 |
| **4th** | Estonia | $120.77 |
| **5th** | Netherlands | $104.83 |

Table 2.4: Alternative finance volumes per capita by country, top five of the high-income category

*Source: CCAF, 2020*

Looking more in detail at the European market, Figure 2.2 displays the uninterrupted growth during the 2013-2018 period, with a rise from $11.9 billion in 2017 to $18.1 billion in 2018. Of this $18.1 billion, an estimated $8.5 billion can be ascribed to SME financing.

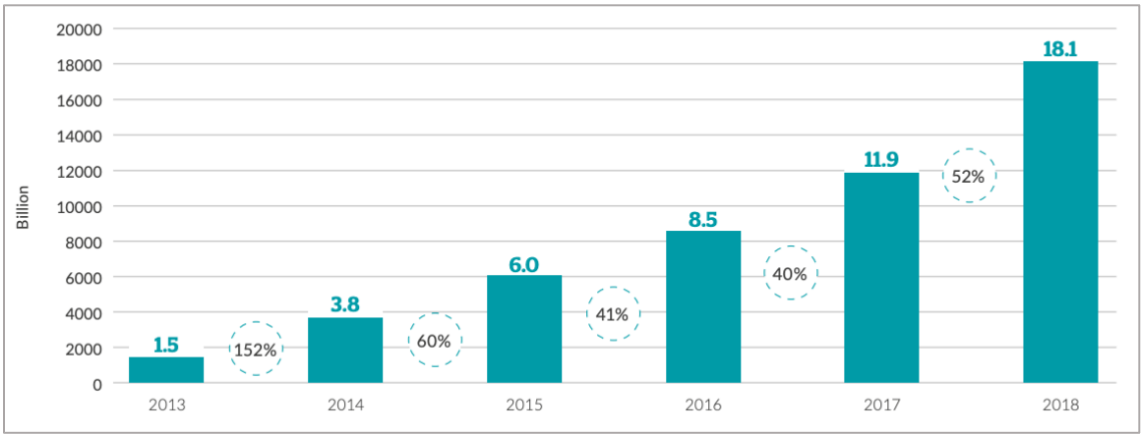


Figure 2.2: European online alternative finance market volumes 2013-2018 USD (including the UK)

*Source: CCAF, 2020*

As already said, the UK was the largest contributor by volume, representing 57% of the overall European market and accounting for $10.4 billion in 2018. If we exclude the UK, the volume generated by platforms across Europe grew by 103% from $3.8 billion in 2017 to $7.7 billion in 2018. Germany ($1.27 billion) and France ($933 million) occupied second and third place, respectively.

Concerning the financing model, debt-based alternative finance activities, especially from P2P Lending models and Balance Sheet Lending, dominate the world's alternative finance markets. Europe is no exception to this phenomenon. Specifically, P2P Consumer Lending remains the top model in terms of volume, raising $2.8 billion in Europe (excluding the UK). The second-largest model in the European market, excluding the UK, was originated from Balance Sheet Property Lending, which raised $1.3 billion in 2018. It is worth underlining that Balance Sheet Property is a new category introduced in the 2020 report; therefore, it had not registered any data in the previous years. The third place is filled by Marketplace

Business Lending ($996.8 million). Then, we find Invoice Trading ($803 million), Real-Estate Crowdfunding ($600.1 million), Equity-based Crowdfunding ($278.1 million) and Reward-based Crowdfunding ($175.4 million). All the data comprehensive of the other models are summarized in Table 2.5.

| | **2018** |
|---|---|
| **P2P/Marketplace Consumer Lending** | $2,889.4 m |
| **Balance Sheet Property Lending** | $1,378.4 m |
| **P2P/Marketplace Business Lending** | $996.8 m |
| **Invoice Trading** | $803.0 m |
| **Real Estate Crowdfunding** | $600.1 m |
| **Equity-based Crowdfunding** | $278.1 m |
| **Reward-based Crowdfunding** | $175.4 m |
| **Debt-based Securities** | $167.8 m |
| **P2P/Marketplace Property Lending** | $144.7 m |
| **Balance Sheet Consumer Lending** | $99.8 m |
| **Balance Sheet Business Lending** | $80.5 m |
| **Donation-based Crowdfunding** | $62.4 m |
| **Minibonds** | $42.8 m |
| **Other** | $6.3 m |
| **Revenue Sharing** | $3.5 m |
| **Community Shares** | $1.6 m |

Table 2.5: European data on alternative finance volumes (excluding UK)

*Source: CCAF, 2020*

A similar situation can be observed in the United Kingdom, where P2P and Balance Sheet count for most. The main difference with the other European country lies in the amount generated, which is much higher. As an example, Marketplace Business Lending generated $2.5 million and P2P Consumer Lending $2.1 million.

Analyzing the situation from the crowdfunding category's point of view (as defined previously, thus not considering invoice trading and balance sheet lending), crowdfunding portals raised $13.1 billion, of which $12.72 in crowdinvesting. The amount raised through lending crowdfunding ($10.4 billion) was much higher than equity ($2.3 billion). In the equity category, real-estate crowdfunding plays a major role since it accounted for $865 million.

Figure 2.3 shows how the crowdfunding industry has grown over the years, confirming once again the predominance of the lending-based model.

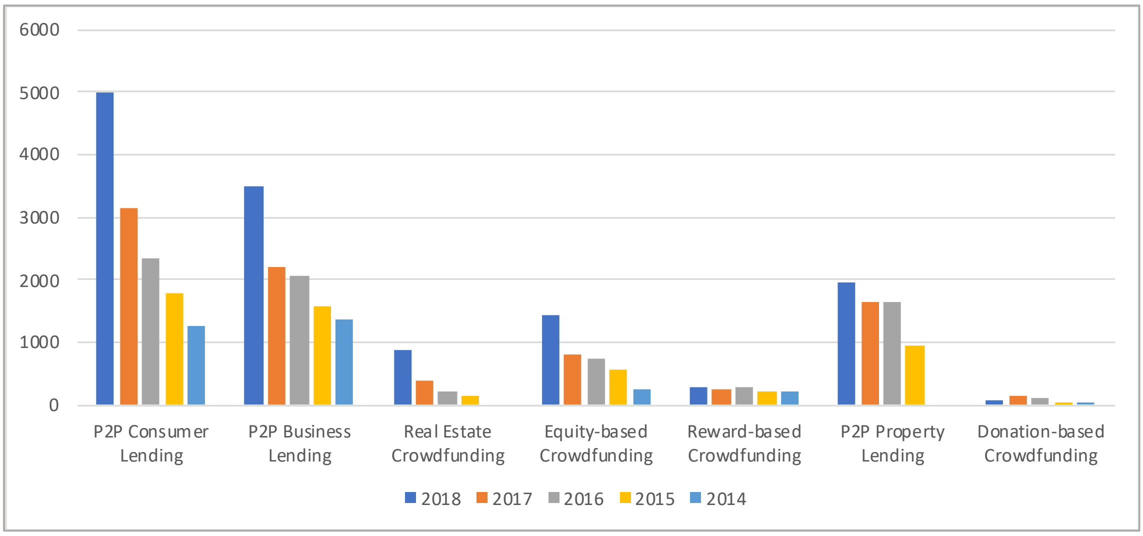


Figure 2.3: Crowdfunding evolution in Europe

*Source: Own elaboration of data taken from The Global Alternative Finance Market Benchmarking Report, The 5th UK Alternative Finance Industry Report*

As regards the Italian context, in 2018, Italy maintained its position as the fifth-largest alternative finance market in Europe, with an increase in volume to $533 million (2017: $272 million). Invoice Trading was the main driver of the total volume, accounting for 65% ($346.2 million), followed by P2P Business Lending (14.3%, $75.9 million) and P2P Consumer Lending (13.5%, $71.8 million). Alternative finance remains a crucial source of finance for SMEs, with total business funding volumes reaching $449.5 million (84.3% of the total). Despite this, the market is mainly in institutional investors' hands, who accounted for 72% of the total volume, which is the second-highest fraction in Europe.

Looking deeper into the Italian crowdfunding environment, the most recent survey available on the phenomenon is that of Starteed, released in February 2020. According to the report, all crowdfunding models have registered substantial growth. However, the increase of the entire sector is mainly attributable to the results of the equity and lending crowdfunding platforms that could take advantage of a more favourable regulatory environment. In this context, the real-estate sector, which can grant short-term and secured returns, has satisfied many investors' interest.

In particular, 29 portals were active in the field of donation and reward, funding over time more than €73 million, of which €16 million in 2019. Many donation- and reward-based campaigns, started in the past months, have mobilised resources to fight the Covid-19 pandemic.

According to Osservatori Entrepreneurship & Finance (2020), crowdinvesting data until the first semester of 2020 are displayed in Figure 2.4. As of 30 June 2020, equity crowdfunding has reached €159 million, while lending reached €749 million, with funding in the last 12 months for equity crowdfunding amounting to €76.6 million (56% more than in the previous period) and €314.2 million for lending (+52% compared to the previous year's flow). The real-estate projects funded in the last year raised €48.7 million (+185% compared to the previous year), divided between €19.5 million from equity platforms and €29.2 million from lending ones.

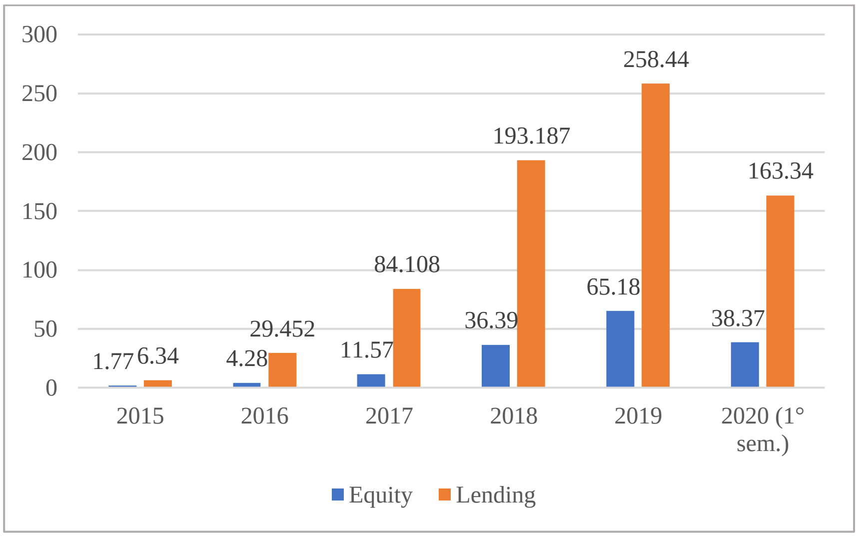


Figure 2.4: Collection flow of crowdinvesting campaigns in Italy (Data in € million)

*Source: Osservatori Entrepreneurship & Finance (2020)*

Comparing with the other European States, relying on data of 2018, it is possible to highlight that the Italian equity side has almost closed the gap with Germany and France, while it has been still far behind on lending (Table 2.6). The UK still seems unattainable.

| | **United Kingdom** | **Italy** | **France** | **Germany** |
|---|---|---|---|---|
| **Equity Crowdfunding** | € 436 million | € 36 million | € 31 million | € 33 million |
| **Lending Crowdfunding** | € 4,140 million | € 193 million | € 444 million | € 732 million |

Table 2.6: Volume of crowdinvesting in 2018: comparison between the UK, Germany and France

*Source: Osservatori Entrepreneurship & Finance (2020)*

# CHAPTER 3

# MINIBONDS

Minibonds represent a recent financial innovation that emerged shortly after the 2008 credit crunch issue. Their main aim is to fill the gap in funding for SMEs, providing a completely new solution. The reasons that often lead to an inadequateness of traditional banking sources were widely discussed in previous chapters.

This Chapter provides a complete assessment of the minibonds industry in the central European countries. In the first part, the boundaries of the concept necessary to examine the European experience will be defined. After analyzing the European and Italian markets, a summary table that clarifies the situation will be presented. As a recap, in the end, the opportunities and the risks of the minibonds sector will be highlighted.

## 3.1 Defining the boundaries

Although after the 2007-2008 financial crisis specialised markets and intermediaries have been created for SMEs to access equity and other forms of funding, debt instruments and, more specifically, the bond markets are still underdeveloped. The international authorities estimated that the European corporate bond markets' value represents less than one-third of the US's. In 2017, the value generated by the European corporate bond market was estimated to be 10% of GDP compared to 31% created by the US market (Expert Group on European Corporate Bond Markets, 2017).

Problems related to the segmentation of corporate bond markets along national lines, and more generally, on the markets' functioning worsen the disparity. Governments and other institutions tried to design some instruments to further SMEs' debt financing, but, as the European Commission (2017) highlighted, debt financing initiatives have been used mainly by mid-cap and large companies. In the last few years, several initiatives such as Horizon 2020 and G20 2017 aim to create a dynamic and sustainable market environment for SMEs.

There is no technical definition for minibonds. They can be described as a form of debt that allows investors to purchase securities from companies (mainly SMEs and start-ups) in the form of an unsecured bond and receive a fixed return over a set period. The term "mini" is associated with the bond issue size since it is smaller than the minimum issue amount needed for a bond traded on institutional capital markets.

However, a high discrepancy between countries exists in the way minibonds are conceived and offered. In some Member States, placement can happen via crowdfunding platforms while in others not. There are countries in which they can be offered exclusively to professional investors and others to be addressed to retail investors. In several countries, markets have been created explicitly for these types of financing instruments. Generally, minibonds are issued for no more than €50 million, have an average duration of around three to five years and an annual interest rate of four to eight percent.

These bonds can take advantage of a simplified issuing mechanism. There is no detailed listing process put in place for companies issuing minibonds. Investors will not necessarily find accurate publications of a company's risks and history. Usually, they are not transferable and there is no secondary market where they can be traded. In other words, the investor is forced to hold the bond for the entire duration period.

They are frequently not covered by the deposit insurance or investors' compensation scheme for customers of authorized financial services firms. The regulatory requirements are much less stringent for minibonds than for retail bonds, for instance. This is good news for the issuer companies as they save much paperwork and reduce the hassle of dealing with banks. However, from an investor's point of view, fewer requirements imply an increased degree of risk: if the issuer goes bankrupt, the investors will have to wait along with all the other creditors. Nonetheless, the expected returns are usually considerably more than those offered by a standard bank.

Some other innovations arose as far as the minibonds context continued to expand. As a matter of fact, basket bonds have been introduced. The term "basket" refers to the fact that these kinds of minibonds are pooled by a special purpose vehicle (SPV) in order to make the issue size more attractive for the investors and diversify the risks associated.

Besides, some companies believe that by using minibonds, they can encourage investors to become true stakeholders in their business and strong advocates of the brand, constituting a way of engaging with their customers. This is true mainly when these instruments are offered through crowdfunding platforms since the individual-investor's active engagement and participation are intrinsic features of the crowdfunding model.

Moreover, institutional debt funds started to invest in minibonds exclusively or together with other debt instruments. This change can be considered a breakthrough from the moment that most debt or private equity funds used to invest mainly in large companies.

In light of the above, this Chapter analyses minibonds as a financial innovation for the debt financing system, presenting the main European context's market characteristics.

## 3.2 Regulatory framework and performances in Europe

We have already said how minibonds are instruments that do not have a proper technical definition. Each country chosen to enhance this instrument has followed its path, with different models and approaches. For this reason, it is important to delineate the different experiences implemented according to the country in which the minibonds have been used. In particular, the countries that have adopted this financial innovation in recent years are France, the United Kingdom, Germany, Spain, Italy, Norway and Poland.

We are now going to explore every country's experiences to have a comprehensive picture of the European context.

### 3.2.1 Germany

In Germany, there is a market dedicated to SME bonds called Mittelstandsanleihen. Mittlestand bonds are corporate bonds with an issue volume usually between EUR 15 and 150 million, which the issuer releases on its own (own issue) or with investment banks' support (third-party issue). Frequently, the duration is five years. The bonds contain a fixed-interest coupon, which regularly has a premium of up to six percentage points compared to larger corporate bonds with the same duration. From the moment that an SME issue is aimed at institutional and private investors, the bonds are generally offered for a minimum nominal amount of €1,000 and follow a bullet repayment structure. The terms and conditions of the obligations do not contain the complex financial covenants otherwise common in loan agreements. Also, lower standards regarding the investment prospectus are required.

Starting from May 2010, five German stock exchanges have been created to trade Mittelstand bonds (Table 3.1).

| Stock Exchange | Segment |
|---|---|
| **Börse Stuttgart** | Bondm |
| **Börse Düsseldorf** | Der Mittelstandsmarkt |
| **Börse Frankfurt** | Entry Standard |
| **Börse München** | m:access bonds Mittelstandsbörse |
| **Börse Hamburg-Hannover** | Deutschland |

Table 3.1: SMEs German market segments

The Entry Standard of the Frankfurt stock exchange established its position as the market leader. The Mittelstandsmarkt of the Düsseldorf stock exchange was closed; the last Mittelstandsbond was issued in June 2013 on the Bondm and in July 2015 on the m:access bonds.

Despite the fact that, as previously said, Mittelstand bonds usually have certain common characteristics, heterogeneous institutional settings between the different segments took place. While in Stuttgart, Dusseldorf, and Munich, a minimum volume of €25 million or €10 million was mandatory, Hannover/Hamburg and Frankfurt accepted any size of emission. Furthermore, a strict rating obligation only existed in Dusseldorf and Munich. The Frankfurt and Stuttgart exchanges accepted emissions without ratings for listed companies, while the Hannover/Hamburg exchange generally waived the rating obligation. The minibonds were usually not rated by any of the three leading rating agencies but by smaller German agencies. Schueler & Aschauer (2017) examined the Mittelstandsanleihen market's emissions in the period 2010-2016. A total of 6.06 billion euros in debt capital was raised with an average coupon of 7.22% (maximum: 11.5%; minimum: 4.25%). In spite of this, the cumulative default rate of the Mittelstandsbonds over the period was 34.09% (45 default events on 132 bonds). Figure 3.1 gives a snapshot of the bonds analyzed.

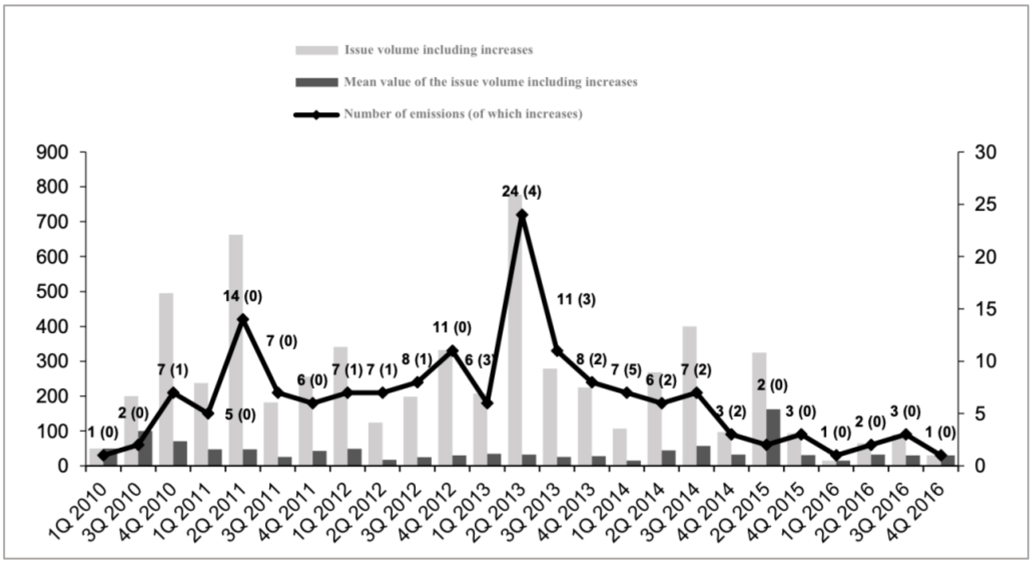


Figure 3.1: Issuance volume in € million and number of issues per quarter in the Mittelstandsanleihen market

*Source: Schueler & Aschauer, 2017*

However, in 2017 the Entry Standard of the Frankfurt Stock Exchange and all the other minibond segments were replaced by the new Scale segment. This recent segment, called Deutsche Börse Cash Market formerly, offers inclusion requirements and follow-up obligations tailored to SMEs. Hence, it facilitates the raising of capital and opens the door to national and international investors. It is also characterized by lower costs like an inclusion fee of €10,000 and a quarter quotation fee of €2,500. Key prerequisites for inclusion are:

- Inclusion documents or with a valid and approved prospectus;
- Contract with supporting Deutsche Börse Capital Market Partner;
- Company history of at least two years;
- National accounting standards (for issuers with a registered office in the EU or EEA states) or International Financial Reporting Standards (IFRS);
- Bond placement with a volume of at least €20 million;
- Denomination of corporate bonds into partial bonds amounting up to a maximum of €1,000;
- Eligible securities are bearer bonds that are not subordinated capital market liabilities of the issuer.

And at least three of the following criteria:

- EBIT interest coverage of at least 1.5;
- EBITDA interest coverage of at least 2.5;
- Total debt/EBITDA of a maximum of 7.5;
- Total Net Debt/EBITDA of a maximum of 5;
- Risk Bearing Capital of at least 0.20;
- Total Debt/Capital of maximum of 0.85;

In particular, these latest criteria are thought to avoid the risk of high default rates outlined in the previous German minibonds emissions (Figure 3.1). It is also a way to prevent an overconfident estimation of the performances of an issuing company.

Since the Scale Market is recent, there is still a limited number of bonds active on the platform. As of 31 December 2018, only 14 bonds were traded from ten issuers with a coupon rate that ranged from 4.5% to 8% and a yield to maturity between 1.71% and 3.58%. Overall, German minibonds are now traded only on a dedicated stock exchange. After a first failure of the experience caused by a high rate of defaults, German authorities created a new market for SMEs growth with stricter and more transparent regulations and criteria. As a consequence, it would be interesting to study the performances of this market in the future.

Having said that, there is another German instrument called Schuldschein that is worth analysing and can be considered as part of the minibonds' category.

Schuldschein is a privately placed, typically unsecured medium to long-term debt obligation governed by German law, which comprises a loan agreement called Schuldscheindarlehen (SSD) and a certificate of indebtedness evidencing such loan agreement (Schuldschein). The certificate can be a separate document or the loan agreement itself. Schuldscheine (plural of Schuldschein) are not legally defined. They are hybrid financial products, not a loan nor a bond. Despite being arranged as similar to debt securities, they have not been considered as such because the debt is constituted by the underlined loan agreement rather than the certificate of indebtedness itself. Usually, an arranging bank agrees with a creditor on the underlying SSD, then sells Schuldscheine to other banks and institutional investors.

This innovation provides greater flexibility since it can be tailored to the individual investor's needs, offering different interests, currencies and maturities (mainly from three to seven years). It is also extremely efficient, both in terms of time to complete and costs: issuers save the time and the cost of having a prospectus approved, listed and rated for trading. Another leverage point is that the process can be made in a discretionary way, with an alternative to the traditional loan.

For these advantages, borrowers and lenders are now increasingly located outside of Germany. They initially spread to Austria and Switzerland, but recently it is possible to find them also in France, Benelux and Scandinavia as well as CEE.

According to UniCredit Research (2019) calculations, in 2019, the volume of annual new issuances of SSDs has increased to above EUR 25 billion since 2016, as well as the average transaction volume (increased to EUR 189 million). Figure 3.2 displays an evaluation of the SSD market.

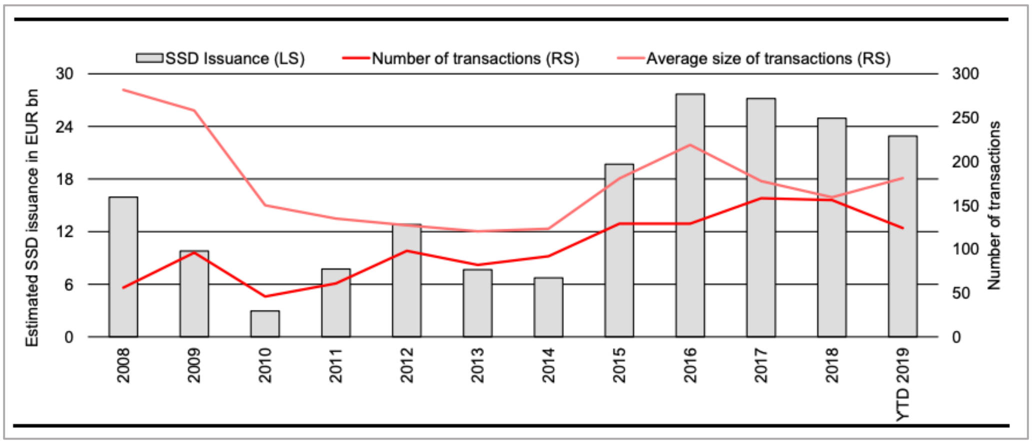


Figure 3.2: SSD issuance, number and average size of transactions

*Source: UniCredit Research, 2019*

Furthermore, in the last years, this market has also benefited from sustainable finance with the rising of Green Schuldscheine. With this form of financing, the proceeds from the transaction can only be used for sustainable projects. As with a green bond, there are no fixed rules on how a Green Schuldscheine has to be structured precisely. The first-ever Green Schuldscheine was placed in 2016 by the Hamburg-based wind turbine manufacturer Nordex. After that, other companies entered the market for green financing for the first time. In August 2019, Porsche entered the green market through a Green Schuldscheine of a record volume of €1 billion.

### 3.2.2 Spain

In Spain, minibonds are offered on the Alternative Fixed-Income Market (MARF). The market was officially opened on 7 October 2013 at the Madrid Stock Exchange and took shape as an alternative to the official market. By being an unofficial market, it adopts the legal form of a Multilateral Trading System and is dependent on Spain's benchmark market for Corporate Debt and Private Fixed Income (AIAF). It was presented as a new way of providing financing to SMEs by creating an alternative private fixed income market in which companies can finance themselves by issuing securities. The MARF aims to facilitate access to fixed-income investors for those companies that cannot enter the AIAF (where company debt is negotiated but only large companies and banks have access). As the requirements to operate in the MARF are more flexible than officially regulated fixed-income markets, it allows smaller enterprises that are typically not listed to issue bonds in a cheaper, quicker and easier way. The minimum size of a bond is €100,000.

The investors directly targeted by the MARF are institutional or qualified, both national and international (pension funds, insurance companies, investment funds, asset managers, banks, professionals and other investment services entities). Retail or individual investors are only able to access the market indirectly through investment funds. This decision has been established as a prudent measure due to the structure of household investment distribution in Spain and Europe.

In this new market, the figure of the Registered Advisor plays an important role. On the one hand, before the bond emission, it has to check the compliance with the requirements for issuing in the MARF and assist the issuing company in the process of preparing the documentation. On the other hand, during the bond trading, it acts as an intermediary in the market and is responsible for reviewing and publishing relevant facts about the enterprises.

As in public financial asset trading operation, issuing companies have to submit specific documentation to Bolsas y Mercados Españoles (BME) in order to ensure the transparency sought for these companies. This necessary information is set out in three documents:

- Information document, with relevant facts on the company (at least two audited financial reports), its evolution in recent years and the reasons for the issue;
- Analysis document, with future projections on possible changes in the financial statements after the debt issue. These analyses are carried out by the registered advisors and the underwriting banks;
- Credit rating document or solvency assessment report by certified entities (BME currently requires a minimum rating of BB-)

The Alternative Fixed Income Market (MARF) has grown steadily in its six years of operation. As of 31 December 2019, 78 companies were financed, either through the registration of commercial paper programs or the launch of bond issuances. The volume of issuances and admissions to trading in the MARF in 2019 amounts to €10,357 million, 63% more than the previous year (BME, 2019).

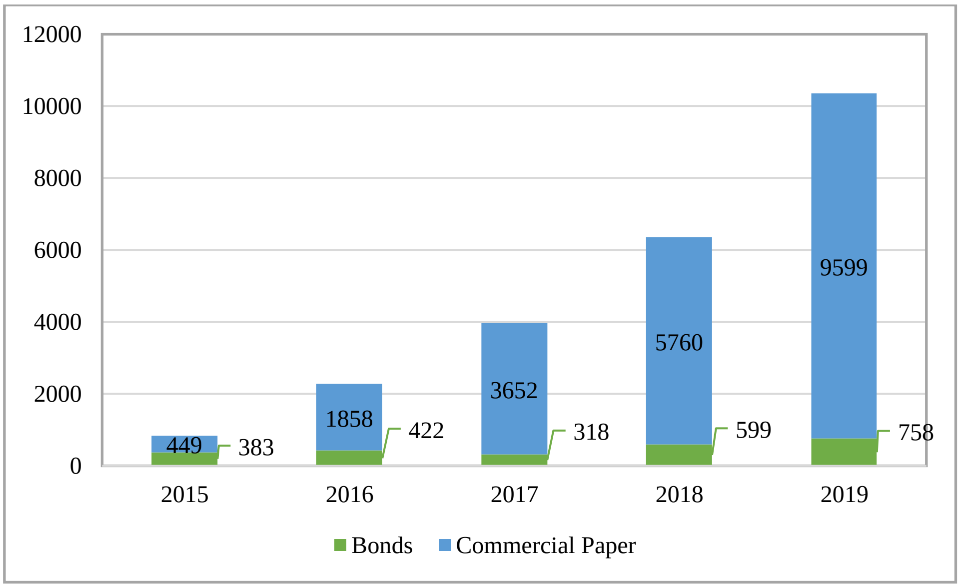


Figure 3.3: Volume of issuances and admissions to trading on MARF (2015-2019), data in € million

*Source: BME, 2019*

### 3.2.3 France

In France, the notion of minibond was first introduced to French law in 2016 by ordinance No. 2016-520[10] (the “Minibon Ordinance”), which allows the issuance of a class of short-

[10] Minibon Ordinance, Article 2; Article L. 223-12 of the French Monetary and Financial Code.

term debt instrument dedicated to the SMEs financing. A year later the ordinance No. 2017-1674[11] (the "DLT Ordinance") allowed blockchain technology to be used to register and transfer unlisted equity and debt securities (tokenized securities) instead of traditional securities accounts.

French minibonds called "minibons" are the results of a modernization and digitalization process of the traditional "bon de caisse" instrument created by the Decree-Law of 25 August 1937. A "bon de caisse" is a financial investment intended for individuals, made with a bank or any other financial institution, which results in the delivery of a registered voucher. The cash voucher operation, whose remuneration is paid only at maturity, distinguishes it from a bond, which gives the right to annual interests. At the end of the investment, the creditor is reimbursed and receives the interest initially agreed between the two parties. However, the use of "bon de caisse" started to decline since the 1980s.

The minibon is the name given to the "bon de caisse" when a participatory financing platform intermediates it. Minibons are short-term bonds that are sold via an online provider. To intermediate them, it is necessary to be registered as Crowdfunding Investment Advisors (CIPs) or Investment Service Providers (ISPs) and regulated by the Autorité des marchés financiers (AMF) - and the French Prudential Supervision and Resolution Authority (ACPR) in the case of ISPs.

Minibons requirements must follow the regulation outlined by the Financial Market Authority (AMF). They can be issued by joint-stock companies or SARLs (limited liability companies), whose capital is fully paid. This extension makes SMEs capable of entering this financing market. Nonetheless, there is the requirement of at least three approved annual reports that limit the access to the younger firms in early stages like start-ups.

Minibons are subject to a registration certificate issued to the investor, bearing mandatory information. The maximum nominal amount of minibonds issued by a single issuer over a 12-month period is €2.5 million. They bear a fixed interest rate, limited (like loans intermediated by IFPs) by the usury rate for overdrafts on account of professionals, and are reimbursed by quarterly (or more frequent) repayments of a constant total amount in principal and interest (which means that bullet financing, i.e., repayable in full at the end of the loan, is not available). The methodology of receiving a fixed interest rate facilitates the risk assessment and estimates the expected return. The duration must not exceed five years.

[11] Ordinance No. 2017-1674 of Dec. 8, 2017 related to the use of a shared electronic recording system for the purpose of representing and transferring securities.

French minibonds are not negotiable. Therefore, they cannot be traded on regulated markets or multilateral trading facilities (a secondary market does not exist). They are entirely in the hands of the owner until maturity. The underwriting document is originated only at the end of the issue process if the target amount has been reached. The characteristics of the bond (duration, interest rate, rights attached, amortization terms), the related project, and the service provider's fees are always disclosed in detail.

Notwithstanding, thanks to the “DLT Ordinance”, a blockchain process can develop a secondary market for the bonds. In addition, this process can record the disposal of the transfer of the bond’s ownership, which eliminates the need for a document between the seller and the buyer, simplifying the overall informational mechanism.

Moreover, crowdfunding platforms can do marketing of their bonds according to AMF regulations. They can use the webpage or other channels such as follow-up emails or newsletters. The marketing campaign must be precise, transparent and not misleading. To increase the transparency process, all the platforms have to make public the minibonds' default rate.

In this context, most crowdfunding platforms target retail investors to invest in green projects like solar plants, leveraging the local community's desire to be part of a sustainable project. Some “green” minibonds are offered at different rates, depending on the individual's distance from the project site. In this sense, crowdfunding platforms promote the financial and economic advantages of the issue and the utility of the whole project.

Although the market is recent, there are some impressive figures to point out. According to the Baromètre Annuel du Crowdfunding en France (2019), in three years the crowdfunding platforms have collected €20.1 million with a high increase in the last year (2017: €10.8 million; 2018: €6.3 million; 2019: €20.1 million). However, the percentage of minibonds issued compared to the overall amount raised through loans on crowdfunding platforms (in 2019 equal to 4%) demonstrates that the market is still small. Also, the average number of investors per project is relatively low compared to bonds and loans. The same goes for the average amount raised per project. Instead, the average amount provided by a single investor per project for minibonds is about a half of that provided by bonds and about twelve times that of loans (Table 3.2).

| | Minibonds | Bonds | Loans |
|---|---|---|---|
| **Amount raised** | € 20.1 million | € 508 million | € 2.9 million |

| | | | |
|---|---|---|---|
| **Average amount raised per project** | € 168,757 | € 721,852 | € 403,763 |
| **Average number of investors per project** | 40 | 151 | 709 |
| **Average amount provided per investor per project** | € 5,381 | € 10,771 | € 464 |

Table 3.2: Data about bonds, minibonds and loans on crowdfunding platforms in France during 2019

*Source: Baromètre Annuel du Crowdfunding en France, 2019*

### 3.2.4 The United Kingdom

There is no legal definition of minibonds in the UK, but the term refers to debt securities targeted to retail investors in small size (usually between £100 and £10,000). They can be sold on two separate channels: the Order Book for Retail Bonds (ORB) and the crowdfunding platforms.

The first channel is an official stock exchange market created in February 2010 by the London Stock Exchange, in response to the rising demand from private investors for greater access to fixed income securities. It offers companies a way to diversify their financing, having their retail bonds traded on a transparent, regulated market. Consequently, investors can access a primary market for retail obligations and an on-screen secondary market for trading activities (gilts, supranational and corporate bonds). The ORB is open to both institutional and retail investors.

The bonds on ORB must be of a minimum amount of £25,000 and are typically traded in units of £100 or £1,000. Simple configurations characterize them, mainly fixed or floating bonds (rarely index-linked bonds). They are characterized by a relatively long maturity, around 5-10 years. However, it is also possible to find bonds with a maturity higher than 30 years. The covenant package is more flexible than that of banks and private placements. Market makers provide bid-offers to the platform. The issuing company must have at least two years of audited financial statements consistent with the International Financial Reporting Standard.

In spite of the above, looking at the costs of the listing and other related costs of a regulated market and examining the average bond size on the market (most bonds issued between £50 and 75 million), it can be supposed that the minimum bearable amount of a bond should be about £25/30 million (London Stock Exchange Group, 2014). This represents a significant barrier for most small enterprises. Only medium or large companies seem to be able to cover the costs.

In terms of numbers, as of December 2019, the ORB market raised 66 issues, 8 of which occurred during the year, without taking into account the government bonds data (London Stock Exchange Group, 2019).

As regards the second channel of emissions, minibonds are directly targeted to individuals. These instruments cannot be exchanged on the market and are not transferable like traditional corporate bonds. In this context, the regulations that refer to crowdfunding and minibonds are ruled by the Financial Conduct Authority (FCA), which defines these instruments as “IOUs (informal documents acknowledging debt) issued by a company to an investor, in exchange for a fixed rate of interest over a set period with a maturity of about three to five year”. FCA adds that they typically offer high returns, reflecting the high risks involved in the investment. Moreover, minibonds are not protected by the Financial Services Compensation Scheme (FSCS). Therefore, if the investor is not protected when firms fail.

As of 2016, in order to promote their expansion, minibonds can be held in an IFISA, namely an Innovative Financial Individual Saving Accounts. IFISAs are a class of retail investment accounts exempted from income tax and capital gains tax on the investment returns and contain innovative financial instruments such as peer-to-peer loans and debentures.

Since January 2020, FCA has temporarily (12-months) banned promotions of what they call “speculative minibonds” (minibonds issued to raise money from investors to lend to a third party or invest in other companies or property) to retail consumers, unless an investor is considered to be sophisticated or have a high net worth because these investments are usually very risky. This is related to the fact that sometimes the issuers do not highlight in an exact way the risk-return trade-off and ignore to underline that the investor’s capital is at risk.

Other characteristics of the UK market will be further outlined in Chapter 4.

### 3.2.5 Norway

In Norway, the Nordic ABM is not a regulated market where registered corporate bonds and short-term fixed income instruments are traded with an original maturity not exceeding 12 months. It is the alternative marketplace for fixed income instruments. It was created in 2005 by the Oslo Børs, which determines the list rules in consultation with market participants. It is not dependent on the authorisation of the Norwegian Stock Exchange Act, and therefore it operates freely of EU directives. The listing conditions are less complicated than the one of the stock exchange market to meet the issuers' needs.

Nordic ABM is divided into two segments to differentiate between bonds exchanged by the general public (Nordic ABM Retail) and bonds traded by professional investors (Nordic ABM Professional), with the face value of the bonds of less than NOK 500,000 (about €47,000) for Nordic ABM Retail and a minimum of NOK 500,000 for Nordic ABM Professional.

As of December 2019, 1,408 minibonds were issued on Nordic ABM, for an outstanding value of approximately €30.5 billion (Oslo Børs, 2019).

### 3.2.6 Poland

In Poland, the Warsaw Stock Exchange (WSE) launched the bond market Catalyst, a public market for trading in debt instruments. It was created in September 2009 and consists of four independent trading platforms. Two of them operated by the WSE are dedicated to retail investors. At the same time, the other two are available to wholesale investors and operated by Bond Spot S.A, an off-exchange market institution. Retail and wholesale markets are then divided into a Regulated Market (RM) and an Alternative Trading System (ATS) with less strict admission conditions. The difference between the wholesale and the retail market lies in the minimum investor order, of at least PLN 100,000 (approximately €22,500) in the wholesale segment and without a minimum threshold in the retail one. The retail market is, therefore, more suitable for minibonds.

The issuer is required to provide current and periodic information in accordance with Catalyst rules. As on the ORB in the UK, the role of market makers is crucial to assure the liquidity of issuers’ financial instruments and the determination of a financial instrument price.

In this market, it is possible to find different bonds such as municipal bonds, treasury bonds, and mortgage bonds. However, corporate bonds dominate the Catalyst market. According to Osservatorio Minibond (2020), 209 securities were listed in this market in 2019, with a value of about €50 million issued by 68 private companies.

### 3.3 Regulatory framework in Italy

The normative references on Italian minibonds are specified in Decree-Law no. 83 of 22 June 2012[12] ("Development Decree") and in the subsequent additions and amendments made by Decree-Law no. 179 of 18 October 2012[13] ("Bis Development Decree"), Decree-Law no. 145 of 23 December 2013[14] ("Italy Destination Plan"), and in the more recent Decree-Law no. 91 of 24 June 2014[15] ("Competitiveness Decree"). As it appears clear, Italian minibonds have been supported by several regulatory reforms to leave no room for interpretation.

Article 32 of the "Development Decree" introduced new financial instruments to support enterprises' growth, offering the opportunity to access the capital market for unlisted Italian companies, also of medium and small sizes (micro-sizes excluded). Companies have been allowed to issue short-term debt instruments (financial bills of exchange) and medium/long-term debt instruments (bonds and similar securities) provided that:

- the issue is assisted by a sponsor who supports the issuers and acts as market makers guaranteeing the liquidity of the securities;
- the last financial statements of the issuer are audited by a statutory auditor or an audit firm registered in the appropriate register;
- the securities are placed exclusively with qualified investors who are not either indirectly shareholders of the issuing company or intended for circulation exclusively between such investors.

In other words, unlisted companies have had the opportunity to access the capital market with the same regulatory treatment previously reserved for so-called large issuers such as large businesses and banks.

Some regulatory facilitation was introduced, such as greater time flexibility and the withdrawal of the quantitative limit for bonds (art. 2412 of the Italian Civil Code) equal to twice the share capital plus legal and available reserves. From a fiscal point of view, due to the modification of the "Bis Development Decree", tax treatment and interest expenses of

[12] Decreto-Legge 22 giugno 2012, n. 83, "Misure urgenti per la crescita del Paese."

[13] Decreto-Legge 18 ottobre 2012, n. 179, "Ulteriori misure urgenti per la crescita del Paese."

[14] Decreto-Legge 23 dicembre 2013, n.145, "Interventi urgenti di avvio del piano "Destinazione Italia", per il contenimento delle tariffe elettriche e del gas, per la riduzione dei premi RC-auto, per l'internazionalizzazione, lo sviluppo e la digitalizzazione delle imprese, nonche' misure per la realizzazione di opere pubbliche ed EXPO 2015."

[15] Decreto-Legge 24 giugno 2014, n. 91, "Disposizioni urgenti per il settore agricolo, la tutela ambientale e l'efficientamento energetico dell'edilizia scolastica e universitaria, il rilancio e lo sviluppo delle imprese, il contenimento dei costi gravanti sulle tariffe elettriche, nonche' per la definizione immediata di adempimenti derivanti dalla normativa europea."

unlisted companies' bond issuances were aligned to that of listed companies, such as the deduction of interest expenses up to 30% of gross profit. On the other hand, it introduced the right to a preferential tax equal to 20% of the interest accrued on the security for minibonds investors on regulated markets. The "Bis Development Decree" also added the legal definition of innovative start-ups and defined their characteristics.
Then, the "Italy Destination Plan" of 2013 under the heading "Measures aimed at facilitating credit access to SMEs, in the context of Promoting Italian economy" made the minibond process less strict. In particular, Special Purpose Vehicles (SPVs) were now legitimate to include minibonds in their portfolio.

In the same year (2013), Borsa Italiana created ExtraMOT PRO, a professional segment of the ExtraMOT market. Project bonds, bonds, minibonds, financial bills and equity instruments can be listed, with a minimum value of €50 million. Technically it is not a regulated market within the meaning of the MIFID Directive, but a multilateral trading facility active with an electronic trading platform and automatic settlement procedures. This offers companies and investors the prospect to take advantage of further opportunities in a secondary market. Besides, since this market is opened only to professional investors, consumer protection does not apply and listing conditions are made easier (publication of the last two years audited annual financial statements and supply of an admission document with basic information). The admission fee for each instrument is low (€2,500 una tantum), regardless of the duration of the title. Intermediaries in other segments, such as listing partners or liquidity providers, are not mandatory. Also, the rating is not mandatory, but its provision, if high, makes the issuer more attractive and allows the company to borrow at lower rates. Once the listing procedure is completed, the issuer must make clear technical and price-sensitive information about the instrument (i.e., interest, coupon, repayments scheme).
To connect the funding needs for SMEs growth and the needs of a fair yield for professional investors, Borsa Italiana also implemented a web platform collecting in a standardized way all the information on companies and securities listed on ExtraMOT PRO, called ExtraMOT PROLinK.

In 2014, the "Competitiveness Decree" provided a more advantageous tax regime for interest and other income from bonds, intending to improve Italian companies' competitiveness. At the same time, the Ministerial Decree 5/2014 provided the eligibility of minibond underwriting operations to the Central Guarantee Fund's guarantee, both presented individually and included in a portfolio of minibonds. The Fund covers 50% of the bond if amortising and 30% if bullet, and up to €1.5 million. In order to be eligible for a guarantee, minibonds must meet these criteria:

a) they must be aimed at financing the business activity;
b) not be intended to replace credit lines already granted to the final beneficiary;
c) the dates of subscription and making the sums available to the final beneficiary must be subsequent to the date of the resolution of the Board of Management accepting the Fund's request for guarantee;
d) have a maturity between 36 and 120 months;
e) not be covered by any other guarantee, real or insurance, for the portion covered by the Fund's guarantee.

It is worth mentioning that the first explicit mention of the term minibond can be found in this last Decree.

Overall, all these requirements channel minibond financing to SMEs' new investments and further investments by professional investors like debt funds. This is the reason why in the same year the European Investment Fund (EIF) and the Italian Investment Fund signed a new agreement to support the development of Italian small and medium-sized enterprises. The agreement established close cooperation between the two institutions aimed at co-investing between EUR 500-600 million in private equity and private debt funds (including those investing in minibonds).

In 2019, there was the opening of another channel for minibonds trading. The Italian Companies and Exchange Commission (CONSOB) approved the amendments to the regulation implementing the rules included in the Consolidated Law on Finance by the 2019 Budget Law[16]. Thanks to this law, equity crowdfunding portals can offer not only equity securities, such as shares but also minibonds and other debt securities with a maximum value of EUR 8 million. The offer must be presented in a separate section of the portal with respect to equity offers. The categories of investors that can issue the bonds are:

- professional investors or entities such as banking foundations or start-up incubators;

[16] Legge 30 dicembre 2018, n. 145, “Bilancio di previsione dello Stato per l'anno finanziario 2019 e bilancio pluriennale per il triennio 2019-2021.”

- individuals holding a financial portfolio (including cash and cash deposits) of at least EUR 250 thousand;
- individuals investing at least €100.000, declaring to be conscious of the investment risk;
- investors who operate in the field of portfolio management or investment advisory services through asset management and, therefore, financial intermediaries.

The 2019 Budget Law (together with the Fiscal Decree 2020 and the Budget Law 2020) also provided changes in the PIR (Piani Individuali di Risparmio) and the securitization deals' regulation. On the one hand, it established the requirement of investing at least 3,5% of their assets in Italian venture capital funds and shares of SMEs listed in the ExtraMOT PRO and AIM Italia segments. On the other hand, it allowed securitisation companies to directly subscribe to bonds issued by S.r.l. and unlisted bonds issued by S.p.A. above the legal limits.

Always in 2019 (16 September), Borsa Italiana presented ExtraMOT PRO[3], a new bond segment dedicated to SMEs and unlisted companies with ambitious growth plans. It was born as an evolution of the professional segment of ExtraMOT PRO in order to increase the visibility of companies and facilitate their access to capital markets, satisfying in a better way the needs of SMEs. This new multilateral trading facility is open to joint-stock companies, cooperatives, insurance companies, public institutions and their subsidiaries. It is dedicated to bonds with a value of up to 50 million euros. Thanks to the integration of ExtraMOT with the Italian and international settlement systems Monte Titoli/Euroclear & Clearstream, it is a flexible and digitalized market.

### 3.3.1 Elite Basket bond

Another experience to be underlined in the Italian context is the ELITE basket bond. ELITE is the London Stock Exchange Group's international platform created on the Italian Stock Exchange in 2012 in collaboration with Confindustria. It aims to accelerate companies' growth through an innovative path of organisational and managerial development intended to make already successful companies even more competitive, more visible and more attractive to investors at a global level.

ELITE and Banca Finint (an investment bank acting as arranger) have developed a basket solution to support the growth of the ELITE program's companies. Thanks to a Special

Purpose Vehicle, a ten-year bond (2017-2027) involving 10 Italian ELITE companies was issued, with a successful closing of €122 million raised. The notes are backed by minibond issues ranging from €8 to €18 million, with identical characteristics in terms of duration and rate. The securities also benefit from a mutual guarantee (15% of the total amount) provided by the issuing companies themselves (credit enhancement). They were offered to an audience of institutional investors. The main investors in the operation were the European Investment Bank (EIB) and Cassa Depositi e Prestiti (CDP), which have carried out a due diligence process and subscribed 50% and 33% of the total amount, respectively. The issuers have committed to using the proceeds of the issue to support investments aimed at their business growth. This first issue brought together companies from seven Italian regions, each operating in a different sector, with over 4,000 employees.

### 3.3.2 Role of private debt funds

Another remark that is worth analysing is about private debt funds. As reported by the Osservatorio Minibond (2020), the private debt funds category counted for the largest percentage (35%) among the minibond investors, even higher than that of banks (26%) in 2019.

These types of funds are close funds adopting a buy-and-hold approach. The investment policy focuses on debt financial instruments issued by companies, including bonds, bills of exchange, other types of debt financial instruments, as well as private lending. According to the Italian Private Equity, Venture Capital and Privat Debt Association (AIFI) and Deloitte (2019), in 2019 there was a bounce of 28% of the value of private debt fund investments in Italy to 1.3 billion euros, of which 50% in bonds (mainly listed/unlisted minibonds) and 48% in direct lending. However, although the capital raised by Italian funds is below €2 billion, these bonds are an increasingly prominent link in the intermediation chain, which can strengthen the functioning of the entire system. As an example, the Italian State manages the “Fund of Funds Private Debt” and the “Fund of Funds Private Debt Italia”, contributing to the intermediation chain.

### 3.3.3 Performances in Italy

It is worth reporting some Italian data about the minibond market. As displayed in the 2020 Italian Minibond Industry Report, 183 Italian businesses issued minibonds in 2019, of which

127 (69%) were joint-stock companies (SpA), 52 (28%) limited liability companies (Srl) and 4 cooperative companies (2%). Looking at the 2012-2019 period, there were 536 issuers, of which 314 companies, representing 58.6% of the total, can be classified as SMEs. These 536 issuers had significant heterogeneity in their revenue size, with 28% of the sample companies exhibiting revenues lower than €10 million (Figure 3.4).

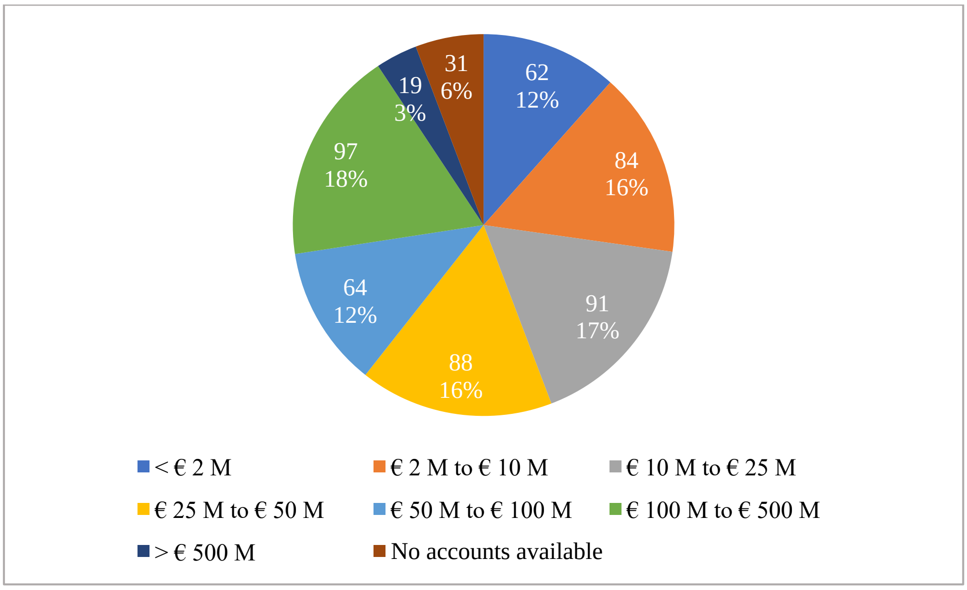


Figure 3.4: Italian minibond issuers, by revenue amount

*Source: Osservatorio Minibond Politecnico di Milano, 2019*

Regarding the capital raised, the total amount (in 2012-2019 period) was equal to €5.5 billion, with a rise of 21% in the last year compared to the previous year. If we look at SMEs' contribution only, the capital raised was €1.96 billion (36%). The average issue size for SMEs was €4.36 million, while for large companies, it was equal to €10.13 million (more than double).

Moreover, the distribution of maturities is quite heterogeneous. The majority expired between five and six years, with an average value of 5.2 years. In general, short-term securities (less than 12 months) were less frequent than long-term ones (more than 7 years). The coupon was usually fixed, with a mean value of 4.89%.

Another statistical note concerns the listing on a stock exchange in the 2012-2019 period; 427 minibonds have not been listed (53%) while 302 (38%) have been listed by Borsa Italiana on the ExtraMOT PRO segment or ExtraMOT PRO[3] since 2019; 72 (9%) have been listed on other foreign markets (generally Austria, Luxembourg, Ireland).

In 2019, the percentage of unlisted bonds increased up to 68% of the total, thus reinforcing the trend towards a lower propensity to quote the stock. In this context, the new ExtraMOT PRO3 and the change in the PIR regulations could help revitalise quotations in 2020.
According to Borsa Italiana, from March 2013 till 13 September 2019, ExtraMOT PRO had 373 listed instruments (excluding ABS) for an outstanding value of €21.88 billion. As of 12 September 2019, the securities traded on ExtraMOT PRO that respected the new segment's characteristics were transferred to the ExtraMOT PRO$^3$. As of June 2020, the ExtraMOT PRO$^3$ included 166 listed instruments for an outstanding value of about €4.5 billion. Moreover, ExtraMOT PRO$^3$ incentivized the minibond emissions below €1 million.
Besides, according to the Italian Guarantee Fund for SMEs, the number of interventions for operations on minibonds was relatively low, with one intervention in 2015, seven in 2016, four in 2017, seven in 2018 and eleven in 2019.

## 3.4 Summary table

This table summarizes and facilitates the understanding of the key elements of the main European experiences discussed above.

| | Germany | | Spain | France | United Kingdom | | Italy | |
|---|---|---|---|---|---|---|---|---|
| **Type of instrument** | SMEs Corporate bonds | Schuldscheine | Minibonds | Minibonds | Minibonds | | Minibonds | |
| **Trading channels** | Scale Segment | Private placements | MARF | Crowdfunding platforms | ORB | Crowdfunding platforms | ExtraMOT PRO ExtraMOTPRO[3] | Crowdfunding platforms |
| **Investors** | Broad investor base (no restrictions) | Predominantly banks; institutional investors like insurers | Institutional/professional investors | No restrictions | Retail and institutional investors | No restrictions | Institutional investors | Qualified investors |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Issuers** | Joint stock companies and limited liabilities companies | Companies | Joint stock companies and limited liabilities companies | Joint stock companies and limited liabilities companies | Joint stock companies and limited liabilities companies | | Joint stock companies and limited liabilities companies | |
| **Conditions** | Firm history of at least two years<br><br>At least three out of the six criteria specified above | Only bilateral; comparable to bank reporting | At least two audited annual reports | At least two approved annual reports | At least two audited financial reports | No requirement | At least two audited annual reports | |
| **Main features** | Placed at volume of at least EUR 20mn Denomination up to €1,000<br><br>Bullet payment | Mostly ranges between EUR 15mn und EUR 250mn<br><br>Bullet payment at maturity (amortisation structure possible but uncommon) | Minimum size is €100,000<br><br>Credit rating document or solvency assessment | Maximum nominal amount of €2.5 million for a single issuer over a 12-months period<br><br>Only amortised payment<br><br>Fixed coupons | Mostly between £50 and 75 million<br><br>Minimum amount of £25,000<br><br>Traded in units of £100 or £1,000 | | No minimum size<br><br>Both bullet and amortised payment | Maximum value of EUR 8 million |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Mostly fixed coupons<br><br>Maturity of five years on average | Fixed or variable coupons<br><br>Maturity commonly equal to three to seven years<br><br>Several tranches with different maturities conceivable<br><br>Freely transferable in whole or in part | | Maximum maturity of five years | Fixed or floating interest rates<br><br>Maturity of 5-10 years | Maturity of 3 to five years on average | Mostly fixed coupons<br><br>Average maturity of about five years | |
| **Other important players** | Deutsche Börse Capital Market partner | Arrangers | Registered advisor | CIP and IFP | Market maker | | Arrangers | |

Table 3.3: Summary of the main characteristics of minibond markets in Europe

## 3.5 Why issue or invest in minibonds?

After analysing the principal European markets, it is possible to outline the factors that make minibonds attractive to investors and companies. At the same time, it is also essential to summarize the reasons why the minibond market could represent a risk area under certain aspects.

### 3.5.1 Reasons to issue minibonds

- Enterprises are able to widen financing alternatives, shifting from traditional financing to alternative sources and mitigating the company dependence on the banking system;
- Companies can acquire experience in dealing with capital markets. It is an opportunity for testing the company in a new context. Therefore, in the case of listed minibonds, there is a maturation of the company culture due to the adoption of best internal operating practices in view of a possible future listing;
- Regardless of the channel (crowdfunding platforms, stock exchanges), businesses can acquire visibility. To be known by a large pool of investors and to have more opportunities to increase the business is a crucial point for the SMEs;
- Firms have the chance to talk with intermediaries or in the case of participative platforms directly to investors, creating a straightforward personal relationship and fostering the trend towards a disintermediate financial world;
- It represents a flexible source of funding: different maturities, different methodologies, different interest rates, different repayment schemes, …
- Possibility to repay the principal amount at "bullet", i.e., to periodically incur only in the payment of the coupon over the life of the loan, avoiding large cash outflows before the maturity, when typically, fixed investments may still do not have generated sufficient liquidity;
- Companies may be able to pursue investment and growth which otherwise would not have happened;
- Particularly on the crowdfunding platforms, it is possible to increase customer awareness and loyalty, as well as to promote the brand and the core value of the business;

- Usually, companies are subject to less strict regulation and requirements than the bank lending segment;
- In some markets like Spain and Italy minibonds are promoted and incentivized directly by the stock exchanges;
- The issue of medium/long-term minibonds enables extending the average duration of the company's financing sources. This generates greater consistency between the average maturity of the assets and the average duration of the liabilities, with a positive effect on the balance sheet ratios that measure the consistency between the liquidity of the investments and the degree of collectability of the sources of financing. Therefore, the improvement in the indicators allows the company to improve the economic and financial equilibrium and, consequently, positively influence creditworthiness. Indeed, the financial structure's improvement is an important element that can allow a better assessment within the banking system, increasing the potential for access to credit.

### 3.5.2 Disadvantages of issuing minibonds

- Issuing minibonds on exchanges or platforms requires a cultural investment towards the company’s transparency; it involves the realization of various activities to provide investors with all the necessary information for assessing the investment risk. It represents a high cost for the company, which in reality should Figure it much as an investment for the future in terms of image and credibility on the market;
- An SME generally does not have the financial and legal skills necessary to carry out preliminary assessments of the convenience, requirements and feasibility of using the bond segment. The preliminary analysis may be entrusted to external consultants. The company, therefore, has to face costs even for assessing whether or not to issue a minibond.
- Even though the dedicated stock exchanges provide quite low fees for SMEs, there are still other costs to be taken into account. Companies incurred several administrative and consulting costs necessary for structuring the issuance and for the subsequent eventual listing on the stock exchange. They depend on the specific characteristics and needs of each issuing company. However, the following are common to most of the transactions: costs for the consultancy provided by the

advisor, for the assistance of the arranger, for the rating agency, for the due diligence, legal costs and other commissions. This is the reason why under certain conditions minibonds can be a more costly solution with respect to bank loans;

- The interest rate applied to minibonds is usually higher than that on bank loans. Thus it happens that enterprises are not able to sustain the repayment costs;
- When targeted to professional investors, minibonds reveals a problem related to their size: to attract this category of investors, the issued amount should be greater than the usual company's financial needs. Nevertheless, the securitization process of several minibonds by various companies in a broad pool may represent an efficient solution;
- Businesses have to consider that the required timing to collect funds from the capital markets is usually higher than the time needed for accessing a bank loan. Instead, if we look at the crowdfunding platforms the time varies considerably.

### 3.5.3 Why invest in minibonds?

- The risk related to these financial products is high, as well as the return. High interest rates allow the investor to have a possible high return every year or fractions of year;
- Minibonds allow investors to build a well-diversified portfolio, where the assets are not correlated with each other, lowering the overall risk. In this sense, the borrowers can invest in riskier instruments like minibonds and at the same time balancing them with less risky products;
- As we said before for enterprises, a wider range of options is available for borrowers (maturity, size, interest, repayment);
- Investors can benefit from fiscal and tax benefits that differ from country to country: in most of the cases, they consist in a tax incentive for the capital that is at risk;
- If the investor does not feel confident enough to invest alone, he/she can rely on investment funds and SPVs that are now starting to specialize themselves in minibonds investments;

### 3.5.4 Disadvantages of investing in minibonds

- The main disadvantage is related to the risks associated with the instrument:

    - Event risk: companies might face unforeseen circumstances that could undermine their ability to generate cash flow
    - Credit risk: if the issuer goes out of business, the investor may not receive interest payments or get his or her principal back
- Since the rating is not mandatory in most cases, investors cannot rely on them as their primary reference point to assess investment riskiness, which is why rating agencies ultimately fail to reduce information asymmetries in no small extent. Low-quality firms with a distinct desire to raise capital can take advantage of this favorable opportunity by issuing overvalued minibonds during these times;
- Minibonds are illiquid securities that usually apply a “buy-hold” strategy to this investment: there is not a second market on which they can be traded;
- Occasionally, there is a call option attached to the bond through which the company claims early repayment of the bond at its discretion (for example, when it sees the possibility of refinancing itself on better terms).

# CHAPTER 4

# PLACEMENT OF MINIBONDS ON CROWDFUNDING PLATFORMS

This Chapter presents the first research implemented in this dissertation. As already said in the beginning, one of the study's objective is to outline the characteristics of the minibonds offered through participatory platforms in Europe.

The final purpose is to attempt to understand what are the main features of the minibonds that have been placed on crowdfunding platforms in other European countries in order to determine whether they can represent a successful form of investment both for investors and companies. Therefore, this analysis can also contribute to estimating the Italian context's future development, which started to adopt this placement methodology only a few months ago.

Since minibonds are a relatively new financial instrument, the literature on this topic is still limited. In particular, as it appears, there is no literature, nor empirical researches, dealing with the placement of minibonds on crowdfunding platforms. All the previous research studies analysed the placements and the performances on stock exchanges like ORB in the UK or ExtraMOT PRO in Italy.

Even if the financial instrument is the same, the channel used to offer the product can influence the way the instrument itself is conceived. Listing a minibond on a stock market is different from offering it on an online platform. By making a comparison, it is similar to choose the right distribution channel for an entrepreneurial company. The product manufactured by the company could be the same, but each distributive channel has different features from which the enterprise can take advantage. The intention is to find out which advantages crowdfunding platforms could provide.

Chapter 4 is structured as follows. Firstly, the structure of the sample employed in this research will be presented. Secondly, the results that have emerged from the data will be described. Lastly, a financial analysis will be conducted to obtain more information on the issuers' performances.

## 4.1 Sample overview and data description

First of all, it was necessary to identify the crowdfunding platforms that have placed at least one minibond on their websites in Europe (excluding Italy). From what is shown in Chapter

3, only the United Kingdom and France have offered and are continuing to offer minibonds through this kind of platform. All the other European countries such as Germany and Spain have experienced only the possibility of placement on a stock exchange.
In general, it has to be said that many crowdfunding platforms are looking with interest at this recent instrument, not only in France, the UK or Italy. For example, the Finnish platform Invesdor, which has been reported as the leading equity-based crowdfunding service in Northern Europe (CrowdfundingHub, 2016), has already offered debt-securities on its platform like bonds and convertible bonds. Therefore, Invesdor, among other platforms, seems to be preparing the ground to explore the minibond solution in the recent future.

### 4.1.1 UK platforms

Starting from the United Kingdom, we can say that this country can be seen as the minibond instrument's pioneer. The first minibond issue was made in 2010 through the so-called "Chocolate Bond". The British chocolatier "Hotel Chocolat" raised £3.7 million through a non-transferable, non-convertible minibond of an initial 3-year term. Investors in the £2,000 bond received six free tasting boxes per year, equivalent to a 5.38% return, while investors in the £4,000 bond received thirteen tasting boxes per year, equivalent to a 5.83% return. This type of mechanism, which was also followed by other well-established brands like John Lewis in 2011 and Nuffield Health in 2013, was performed directly from the company without the support of a platform nor a listing in a stock exchange. It was made possible mainly due to the notoriety of the enterprises.
In order to find the first minibond placed on a crowdfunding platform, it is necessary to wait until 2013 with the so-called "Burrito Bond" emitted by Chilango (formally Mucho Mas Limited). This was the first minibond on a crowdfunding platform ever. It was placed on the Crowdcube platform and the collection ended in 2014 with a £2.5 million raised.
Hence, Crowdcube is one of the platforms that proposes minibonds to investors. It is an equity-based crowdfunding platform founded in 2011 and it operates on the "all or nothing" model. It successfully backed numerous equity campaigns such as Revolut Ltd and it is well-known for the minibonds raising campaigns. Indeed, since Chilango in 2014, several other businesses have launched minibond offerings via the Crowdcube platform.
However, Crowdcube conceives the minibond instrument as a solution for established brands. The co-founder Luke Lang defined them as "an opportunity for customers and

investors to invest in companies they already know and want to support, as well as receiving a regular financial return on their investment". According to the data shown on the website, Crowdcube was able to reach 1,000 funded project (corresponding to 820 different companies) last year, raising £580 million in total and £151.9 million only in 2019.

Another platform that has raised minibond campaigns is Code Investing, also known as CrowdBnk. Code Investing is an equity-based crowdfunding platform created in 2011. It is included in the UK's leading marketplaces for SME growth capital, providing SMEs with an efficient and transparent way to raise debt financing via a network of investors. The first minibond placement happened in 2015. However, the platform now is incurring high financial losses and is going towards a liquidation procedure.

In comparison with Crowdcube, minibonds are explicitly recognised as an instrument dedicated to SMEs' financing. The crowdfunding platform can play a key role in facilitating the interaction between issuers and investors. Ayan Mitra, the founder of CrowdBnk, asserted that the compatibility between minibonds and crowdfunding "stems from the fact that minibonds as an instrument and crowdfunding as an activity are good ways of engaging the customers who are going to buy the product". The crowdfunding platform does have the role of making the company known in the eyes of investors.

The third British platform with minibond emissions is Tifosy Investment, founded in 2013. It is a recent equity-based crowdfunding system focused on sports clubs (mainly football clubs). Tifosy is a more specialised company compared to the other British platforms, which usually take into account campaign from the most diversified economic sectors (food, energy, finance, …). For this reason, Tifosy also addresses the international market, attracting businesses from all over Europe. The first minibond was issued in 2017.

The last crowdfunding platform dealing with minibonds is Wellesley&Co. It was launched in 2013 as an established alternative investment company specialised in property-backed lending. The company offered unsecured minibonds (Wellesley Minibonds) and property-backed secured bonds (Wellesley Property Minibonds). In September 2020, Wellesley stated that due to Covid-19, fewer properties were being sold due to issues such as building delays resulting in a lack of incoming revenue, forcing Wellesley to restructure. A creditors' vote on the Company Voluntary Arrangements (CVA) is currently taking place. This is why the data from this company was not accessible and are not considered in the panel of data. The estimates updated at March 2019 outlined a total amount raised of £44.8 million for the

Wellesley Property Minibonds and £58 million for the Wellesley Minibonds with a weighted average interest rate (from 0 to maximum 6 years of maturity) 5.44%.

### 4.1.2 French platforms

On the other hand, the context in France is quite different. Even though the United Kingdom was the early-adopter of this financial solution, France includes a wider variety in terms of platforms and sectors available for minibonds placements. This is also due to the fact that minibonds in France were conceived as products made for being placed only on participatory platforms.

One of the most innovative platforms is Lita.co, an equity crowdfunding portal specialized in social impact investing, designed to connect ordinary and professional investors with companies that aim to generate a high social and environmental impact parallel with a financial return. Lita.co was born in France in 2014 but is also present in Belgium since 2017 and in Italy since 2018. The rationale behind the choice of geographical division between France, Italy, and Belgium lies in the willingness to enhance each country's local communities. However, to date, it is possible to find minibonds emission only on the Lita portal in France. As reported by the Dossier De Press (2019) by Lita.co, the portal was able to finance 98 campaigns, raising €35 million in total and €15 million in 2019.

The second crowdfunding website is Happy Capital. This fintech, created in 2013 by Philippe Gaborieau, remains very active in the SME financing sector, providing the possibility to small and medium enterprises to obtain funds mainly in form of shares.

One of the main advantages proposed by this platform is the variety of sectors to which the investor can contribute (real-estate, music, healthcare, entertainment, …). Besides, the portal implements a one-year follow-up of the projects financed by an expert referenced on the platform. This follow-up dispenses a double dividend: for the investor, an additional guarantee; for the entrepreneur, an additional success factor. The data released on the firm website show a value of €4 million collected in 2019.

In contrast to Happy Capital, we find a crowdfunding platform called MiiMOSA, which is focused exclusively on the agriculture and food sector. Launched at the end of 2015 as a donation-based portal, at the beginning of 2018 MiiMOSA strengthened its offer of financing with participatory loans and minibonds, thus allowing to direct popular savings towards agri-food projects. Due to the donation-based approach, the company performed

many small projects, completing 3,500 campaigns and raising more than €35 million. Data about 2019 displayed a value of €9 million collected.
Feedelios represent another specialized platform. It is the first approved equity crowdfunding portal for companies located in France's overseas departments and regions (French Guiana, Guadeloupe and Martinique, Mayotte and Réunion). The companies benefiting from the funds raised are mainly regional (overseas zone), while the investors are national from all over France, or even foreign. Since its creation in 2011, Feedelios has supported fast-growing and local companies that have validated their technology and business model. By being a closely local platform, the amount raised during the years is still moderated.
Furthermore, to highlight France's shift towards a more sustained approach to renewable energy and the advancement of the investment plans in wind power, photovoltaics and also in the more traditional hydroelectric sector, it is possible to distinguish four different crowdfunding platforms focused on renewable resources. In particular, thanks to French law no. 2015-992 of 17 august 2015, also known as the "Energy Transition Act", companies are allowed to develop renewable energy projects and to involve individuals and communities close to the facilities financially, either directly or through crowdfunding professionals.
In this context, the first portal to be analysed is Lendopolis. Founded in November 2014, it is dedicated to business projects in the renewable energy and real-estate sectors and offers different investment methodologies. There is the possibility to invest in equity through non-listed shares or in debt-based securities through bonds, convertible bonds and minibonds. According to the Baromètre du crowdlending (2019), in 2019 Lendopolis was the leading platform specialised in renewable energies, with more than €67 million collected through 315 campaigns (€26 million in 2019) and an increase of 148% compared to the previous year.
The second crowdfunding platform in terms of amount raised is Lendosphere, launched in 2014. In 2019, it raised €21 million, and since its creation, it has completed 203 projects with €72 million secured. Lendosphere was born to guarantee investors to direct their savings towards positive projects for the environment. In 2015, it represented the first portal that differentiated the financial instrument characteristics depending on the project's investors' geographical distance, thus offering a more favourable rate for those living near the project. In addition, the majority of the campaigns have employed the minibond instrument.

Always looking at the amount collected, Enerfip is positioned in third-placed, with €18 million raised in the last year (in total €32 million through 114 campaigns). A crucial element of the platform is the proximity to the projects. Indeed, it takes advantage of the organisation of information hotlines in the municipalities involved in the projects, together with on-site investment assistance for citizens unfamiliar with the Internet tool. Created in 2015, in July 2016 it was the first European platform to launch the first bond issue integrating the blockchain technology.

Another platform committed to renewable energy projects is Lumo Investissement. It was launched in 2012, constituting one of the first crowdfunding platforms in French. Since September 2015, it is also certified as a B Corporation, i.e., a company capable of doing business with a positive impact and generating value through the creation of benefits for the community. However, it should be noted that investors in Lumo's projects usually finance only a small part of the needs. The campaigns are usually co-financed with the traditional banking system. As of 31 December 2019, the projects financed were 90, securing about €8 million.

The last three platforms that offer minibonds aim at guaranteeing access to new sources of finance for French SMEs. Investors can choose between different sectors and financial instruments.

The first one is a crowdlending platform created in 2015 with the name WeShareBonds. The investment procedure follows two steps:

- First phase: during the phase known as pre-fundraising, independent professional investors finance 20% of the project and give their opinion, together with the credit funds that systematically subscribe 31% of each transaction;
- Second phase: individuals invest under the same economic conditions as professionals, up to 49% of the project.

This procedure requires a detailed analysis of the project to be launched and allows the individuals' interests and the platform to be aligned. The total amount lent was more than €25 million (€6 million in 2019) through 59 campaigns.

The second portal for SME financing is Credit.fr, which was established in September 2014. In this case, the platform is supported by two investment funds that can intervene mainly in the event of a high amount requested by the issuer. Every project is evaluated by the internal team of credit analysts, who then assigns a credit score. According to the company's data, the value of the projects financed was about €66 million through 650 programs (€26 million in 2019).

Finally, PretUp&Unilend is a crowdlending platform, formed in 2018. In fact, PretUp acquired Unilend in 2018 following the judicial liquidation procedure. Therefore, before, they were two separate enterprises. Unilend was built in 2013 and is widely recognized for its auction loan offers. On the other side, PretUp started its activity in May 2015, focusing primarily on the regional SMEs (the ecosystem of startups in Lorraine). As a result of the acquisition, PretUp maintains the Unilend brand and acts on two separate websites. The aggregate amount collected by the two entities was about €49 million thanks to 741 campaigns (€7 million in 2019).

A common element of the last two platforms is the presence of many minibonds characterized by small sizes (also lower than €1000). This is due to the fact that the minibond option is often part of a larger loan released according to the financial characteristics of a traditional debt instrument.

### 4.1.3 European platforms

Table 4.1 summarizes the main characteristics of the platforms taken into account in this research. It seems evident that in the United Kingdom, few platforms delivered large amounts of capital, while in France, there is a higher number of active portals that raised a lower amount. Additionally, France appears to have an inclination towards programs that have a sustainable impact on society and the environment. Moreover, it looks like each country's culture is expressed in the minibond sector of interest; France is more oriented on sustainable actions and national SMEs' financing, while UK's interest is also directed towards the international community and established brands.

| PLATFORMS | COUNTRY | FOUNDATION DATE | TYPE | SECTORS | NUMBER OF CAMPAIGNS | TOTAL AMOUNT RAISED | AMOUNT RAISED IN 2019 |
|---|---|---|---|---|---|---|---|
| **Crowdcube** | UK | 2011 | Equity-based | All | 1000 | £ 580 million | £ 151.9 million |
| **Code Investing** | UK | 2011 | Equity-based | All | n.a. | n.a. | n.a. |
| **Tifosy** | UK | 2013 | Equity-based | Sport | n.a. | n.a. | n.a. |
| **Wellesley&Co** | UK | 2013 | Equity and lending-based | All | n.a. | £ 102.5 million | £ 6 million |
| **Lita.co** | France, Italy and Belgium | 2014 | Equity-based | Social Impact Investing | 98 | € 35 million | € 15 million |
| **Happy Capital** | France | 2013 | Equity-based | All | n.a. | n.a. | € 4 million |
| **MiiMOSA** | France | 2015 | Donation and lending-based | Agriculture and food | 3500 | € 35 million | € 9 million |
| **Feedelios** | France | 2011 | Equity-based | All | n.a. | n.a. | n.a. |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Lendopolis** | France | 2014 | Lending-based | Renewable Energy | 315 | € 67 million | € 26 million |
| **Lendosphere** | France | 2014 | Lending-based | Renewable Energy | 203 | € 72 million | € 21 million |
| **Enerfip** | France | 2015 | Lending-based | Renewable Energy | 114 | € 32 million | € 18 million |
| **Lumo Investissement** | France | 2012 | Lending-based (Civic crowdfunding) | Renewable Energy | 90 | € 8 million | n.a. |
| **WeShareBonds** | France | 2015 | Lending-based | All, focus on SMEs | 59 | € 25 million | € 6 million |
| **Credit.fr** | France | 2014 | Lending-based | All, focus on SMEs | 650 | € 66 million | € 26 million |
| **PretUp&Unilend** | France | 2018 | Lending-based | All, focus on SMEs | 741 | € 49 million | € 7 million |

Table 4.1: Overview of the crowdfunding platforms composing the sample

### 4.1.4 Data description

After having identified the European platforms on which minibonds are traded, the second step was to select the information about all the minibonds completed from 2014 until October 2020. The minibond emissions were found by analysing the website of each crowdfunding platform. For each one, it was possible to determine:

- the issuing company;
- the year in which the collection ended;
- the economic sector;
- the capital raised;
- the target capital;
- the number of investors;
- the average interest rate: every time there was a differentiation on the interest rate applied depending on the investors' characteristics, the average is computed;
- the maturity.

Considering this data, it was also interesting to determine the funding success rate evaluated as the capital collected divided by the target capital. In this regard, WeShareBonds, Credit.fr and PretUp&Unilend validate the campaigns the moment after the requested capital has been achieved. If the target amount is not reached within a pre-determined time frame, the project does not take effect. This is to say that the funding success rate was always 100% in the case of these three portals.

Furthermore, it was useful to compute the investors' average investment on a single project, dividing the overall capital raised by the number of investors. However, except for the Credit.fr platform in which it was feasible to separate the investment fund's contribution in each bond campaign, there was no information about the contribution by credit/investment funds on the other portals. This may lead to a situation where the average investment calculated is not representative as few investors (funds) committed most of the capital. In contrast, the other investors invested much smaller amounts.

In order to be able to make a comparison between the value of minibonds in France and the UK, the latter were converted from pounds into euros. In this respect, it was chosen to use the average British Pound-Euro exchange of the year in which the campaign took place.

Another assumption to be described is the one related to debentures. The term "debenture" means different things to different countries. What is important for this study is to consider the UK conceptualization of the instrument since it is the country in which the innovation is also diffused on participatory platforms. In the UK, a debenture is widely accepted as a bond that is specifically secured by designated assets or property of the issuer, pays interest semi-annually, and is registered rather than bearer form. Since these characteristics differ from the UK minibond definition, debentures are not considered in the research.

Looking at financial innovation in the UK, it was decided to exclude the bonds offered on the Downing Crowd platform. These types of bonds, called Crowd bonds, are similar to minibonds in the sense that they are highly risky products bearing fixed interest rates and not covered by the Financial Services Compensation Scheme (FSCS). Nonetheless, the bonds are backed by tangible operational assets. This peculiarity takes them far from being included in the minibonds' category.

## 4.2 Presentation of the results obtained

After that the assumptions and the data features have been clarified, the main results obtained from the analysis are presented.

A total number of 549 minibonds has been found on the 14 crowdfunding platforms analysed. It is worth looking at the difference between the countries and the platforms (Table 4.2).

| | CAPITAL RAISED (Sum) | CAPITAL RAISED PER BOND (Average) | NUMBER OF MINIBONDS |
|---|---|---|---|
| France | € 43,415,035 | € 82,853 | 524 |
| Credit.fr | € 27,764,950 | € 80,246 | 346 |
| Enerfip | € 2,596,640 | € 199,742 | 13 |
| Feedelios | € 50,000 | € 50,000 | 1 |
| Happy capital | € 250,000 | € 250,000 | 1 |
| Lendopolis | € 591,107 | € 84,444 | 7 |
| Lendosphere | € 9,280,280 | € 175,100 | 53 |
| Lita.co | € 342,900 | € 171,450 | 2 |
| Lumo | € 540,000 | € 90,000 | 6 |
| MiiMOSA | € 270,000 | € 135,000 | 2 |
| PretUp&Unilend | € 429,158 | € 4,822 | 89 |
| WeShareBonds | € 1,300,000 | € 325,000 | 4 |
| UK | € 72,680,011 | € 2,907,200 | 25 |
| Code Investing | € 24,100,037 | € 3,442,862 | 7 |

| | | | |
|---|---|---|---|
| Crowdcube | € 37,923,077 | € 2,708,791 | 14 |
| Tifosy | € 10,656,897 | € 2,664,224 | 4 |
| **Total** | **€ 116,095,046** | **€ 211,466** | **549** |

Table 4.2: Data results on the capital raised, capital raised per bond and number of minibonds on European platforms

Regarding the level of capital raised, it is evident that the UK remains the leading country since its amount (€72.7 million) is much higher than that of France (€43.4 million). The average amount raised by the French platforms is about €83,000, which is much lower than the one of the English platforms (€2.9 million). In particular, the French company PretUp&Unilend performs minibonds projects with the lowest values, i.e., about €4,000 each.

Even though the capital raised by English platforms is higher than the French ones, both in general terms and considering the single platform, the French platforms' number is greater. Looking at the single platforms, the ones that reached a considerable capital level are Credit.fr, Lendosphere, Code Investing, Crowdcube and Tifosy. The others did not reach, or have not reached yet, a significant amount collected; only Enerfip and WeShareBonds exceed 2 and 1 million euros, respectively. The remaining portals do not overcome the value of €600,000.

Nevertheless, if we consider the number of minibonds, there is a major difference. France dominates the European scenario with 524 emissions, which corresponds to 95.4% of the total. More in detail, it has to be noted that Credit.fr alone emitted 346 minibonds, namely 63% of the total. On the contrary, there are also platforms, such as Lita.co, Feedelios, Happy capital and MiiMosa that completed one or a maximum of two minibonds campaigns. For this reason, it is not clear if they are still testing and attempting to become familiar with the financial instrument, or if they do not consider minibonds as a valuable solution. What is evident is the fact that a significant discrepancy exists between platforms, predominantly within French ones.

Besides, Table 4.3 exhibits the number of investors, the average investment, term and interest rate.

| | NUMBER OF INVESTORS (Sum) | AVERAGE INVESTMENT | AVERAGE TERM (years) | AVERAGE INTEREST RATE (per annum) |
|---|---|---|---|---|

| | | | | |
|---|---|---|---|---|
| France | 38,177 | € 1,901 | 3.01 | 6.35% |
| Credit.fr | 19,403 | € 2,501 | 3.05 | 6.51% |
| Enerfip | 2,270 | € 1,071 | 3.27 | 5.86% |
| Feedelios | 12 | € 4,167 | 1.00 | 9.50% |
| Happy capital | 33 | € 7,576 | 5.00 | 6.00% |
| Lendopolis | 1,768 | € 468 | 3.57 | 5.14% |
| Lendosphere | 8,487 | € 1,185 | 2.73 | 5.48% |
| Lita.co | n.a. | n.a. | 7.00 | 4.50% |
| Lumo | 272 | € 3,259 | 4.50 | 5.46% |
| Miimosa | n.a. | n.a. | 5.00 | 3.75% |
| Pretup&Unilend | 5,028 | € 76 | 2.74 | 6.64% |
| WeShareBonds | 904 | € 1,272 | 2.81 | 5.11% |
| UK | 11,909 | € 11,239 | 4.12 | 8.01% |
| Code Investing | 1,322 | € 30,938 | 3.86 | 8.54% |
| Crowdcube | 8,841 | € 4,455 | 4.00 | 7.75% |
| Tifosy | 1,746 | € 5,435 | 5.00 | 8.00% |
| **Total** | **50,086** | **€ 2,313** | **3.06** | **6.43%** |

Table 4.3: Data results on the number of investors, average investment, term and interest rate on European platforms

All the minibonds projects gave the possibility to invest their funds to more than 50.000 investors (both institutional and retail), with an average investment of €2,313. In France, the number of investors was three times higher than in the UK. Consequently, according to the greater number of bonds, French lenders' average investments were much lower (€1,901) than the British ones (€11,239).

In general, the bonds' average term is moderate (3.06 years), highlighting a prevalence of the short-term typology. However, given the higher amount of capital associated with the UK's bonds, the maturity is longer in this country (4.12 years compared to 3.01). Moreover, the average interest rate is higher in the UK. Hence, the English minibonds were considered riskier. The annual interest rates shown in the table are usually paid on a quarterly or semiannual basis. In some cases, together with the payment of the interest rates, other rewards are offered, such as memberships or gifts, depending on the amount invested.

Besides, further consideration is required. The two tables show that the average total values (average capital raised, investment, term, interest rate) result from data that differ considerably depending on the platform. For instance, referring to the average investment column, the French average of €1,901 is given by platforms with a very large average investment (Happy capital €7,576) and others very limited (Lendopolis €468).

For what regards the funding success rate, the results show an average rate of 112%, with no noticeable difference between the two countries. The fact that the rate is over 100% demonstrates a strong belief in the projects offered and more generally in the minibond mechanism.

Going ahead with the crowdfunding market's evaluation, we can investigate which sectors prevail in the sample. The examination suggests that there is a large number of different sectors. Thus, companies of different categories took advantage of the innovative instrument. In total, we could identify 33 different sectors, including technology, healthcare, education, tourism, telecommunication and many others. If we include all the sectors characterized by less than 15 projects under the item "others", we can point out ten major categories (Figure 4.1). As a remark of the variety of the issuers' economic activities' typology, the "others" category represents one-fourth of the total. Retail, renewable energies and Hotel&Restaurant represent the top three sectors, constituting 18.4% (101 minibonds), 14.4% (79 minibonds) and 10% (55 minibonds), respectively. Services, construction, manufacturing, real-estate, consulting and finance also play a significant role.

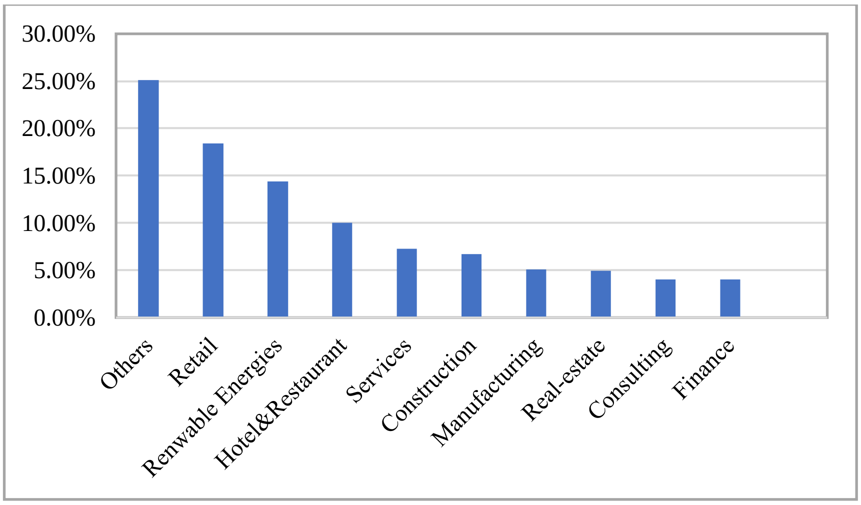


Figure 4.1: Data by sectors based on number of minibonds

The previous graph was calculated on the basis of the number of campaigns. It is interesting to observe the changes when the weight of the sectors is measured in accordance with the capital raised (Figure 4.2). Figure 4.2 reveals that the food sector, which does not Figure in the previous graph, occupies first place with more than €28 million financed, representing 24.3% of the total. Also, the sports category is an outsider since it is not present in the chart above. It is important to remark that real-estate increases the percentage from 5% to 18.2% with respect to the first graph, while renewable energies decrease from 14.4% to 11.4%. Hotel&Restaurant, retail and construction are confirmed to be key sectors of activities.

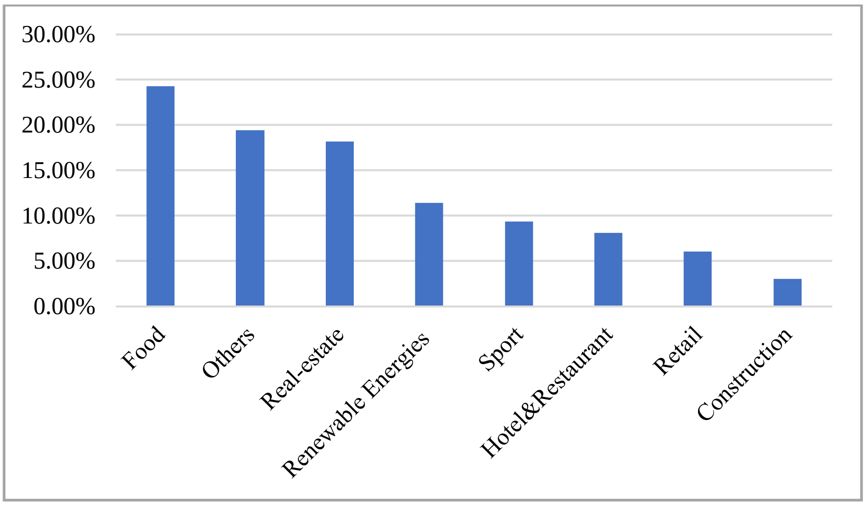


Figure 4.2: Data by sectors based on capital raised

By analysing the sample's evolution through the years, it is useful to denote that 2017 was the crucial year. Indeed, in 2017 the minibonds placement on participatory platforms declined in the UK and just started in France. This is the reason that can explain the situation in Figure 4.3. In 2017, there was a drop of capital raised given by the lower amount of the French platforms, but at the same time, the number of placements skyrocketed to 143 minibonds. The first three years (2014, 2015 and 2016) followed the UK market features with a low number and high emissions value. In the last two years (2018 and 2019), there was a recovery in terms of capital and a suitable level in terms of number.

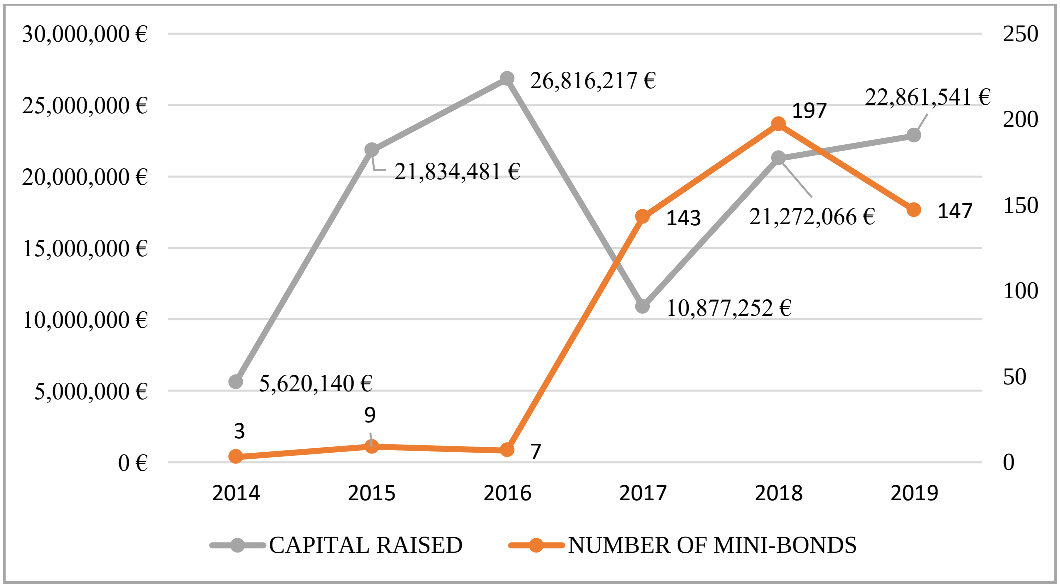


Figure 4.3: Data on the evolution of capital raised and number of minibonds (2014-2019)

Another element turned out to be a distinguished feature of the sample. Indeed, it is worth examining the minibonds' distribution by identifying different groups based on the capital raised. Dividing the range of values into six different categories, as it is shown in Figure 4.4, it can be discovered that almost 72% of the minibonds had a capital associated with less than €100,000. In this regard, if we also add then the projects that financed a maximum value of €500,000, we obtain a value of about 93%. This confirms once again the limited size, which is intrinsic in the minibond definition.

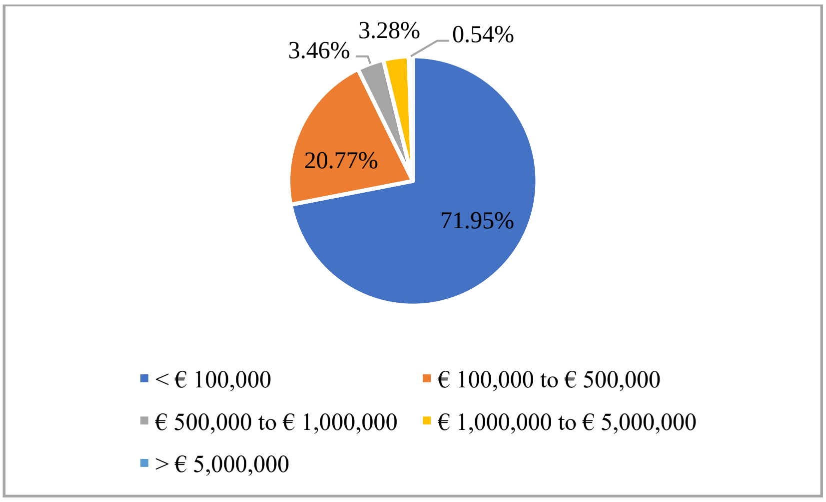


Figure 4.4: Minibonds distribution by issue size (UK and France)

Nonetheless, what has been said above is more representative of the French market since the French minibonds constitute 95.4% of the total. The UK experience appears to be quite different (Figure 4.5). Actually, the projects with an amount lower than €500,000 represent only 12%. The largest segment, which corresponds to 64% of the total, is between €1 million and €5 million, not forgetting that minibonds higher than €5 million serve as the 12%.

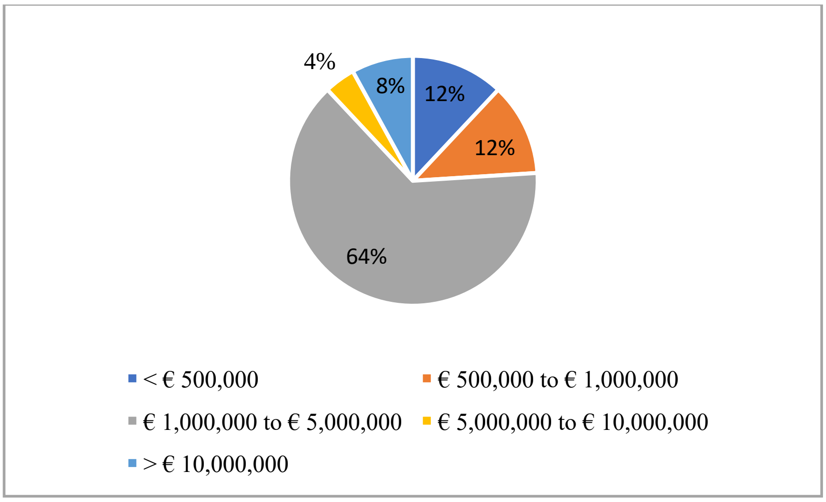


Figure 4.5: Minibonds distribution by issue size in the UK

### 4.2.1. Issuers' characteristics

At this point, it is essential to look at the issuers' characteristics and highlight the variations from what has been said until now, considering only the projects presented by small and medium enterprises.

From the 549 minibonds composing the sample, it was not possible to find information about 94 projects because the platforms did not provide the enterprises' identity. Nevertheless, the platforms clarified that these companies were all SMEs.

Once having said this, 352 different companies (see Appendix for details) were identified (associated to 455 minibonds), 21 on English platforms (associated to 25 minibonds) and 331 (associated to 430 minibonds) on French ones. Therefore, this situation implies that several businesses that completed more than one minibond campaigns, usually on the same crowdfunding platforms. A large fraction is composed of French companies active in the renewable energies sector that launched different photovoltaic or wind power plants.

In detail, Table 4.4 displays the number of companies per number of campaigns performed. In this measurement, there were also campaigns undertook by the same firm that are not taken into account since they used an instrument different from the minibond, such as equity or loans.

| Number of campaigns | Number of companies |
|---|---|
| **13** | 2 |
| **5** | 2 |
| **4** | 3 |
| **3** | 11 |
| **2** | 40 |

Table 4.4: Number of companies per number of campaigns performed

Subsequently, the 352 businesses were divided into large-, medium-, small- and micro-sized categories, according to the definition given in Chapter 1. The information about these companies was taken by checking three different databases: Orbis by Bureau Van Dijk, Societe.com and Companies House. The results show that 17 companies are large, 23 medium, 199 small and 113 micro. Thus, small- and micro-sized enterprises correspond to 56.5 % and 32.1% of the total, respectively. Of all these firms, just four were foreign: three Italians and one German.

Moreover, the age at which the issuers finalized the collection for the project was also analysed. The average age was about 16 years; not considering the large companies the value lowers to 15. This fact shows that not only young enterprises were financed, but also the mature ones, which search for investments to expand their existing business.

Now, it is significant to analyse the different minibonds characteristics issued by SMEs and large companies (the counting of SMEs includes the 94 companies with no identity information). Table 4.5 shows the elements that reveal to have more significant differences.

| | NUMBER OF MINIBONDS | CAPITAL RAISED (Sum) | CAPITAL RAISED PER BOND (Average) | AVERAGE INTEREST RATE (per annum) |
|---|---|---|---|---|
| Large | 42 | € 34,559,033 | € 822,834 | 5.79% |
| France | 36 | € 7,507,137 | € 208,532 | 5.60% |
| UK | 6 | € 27,051,896 | € 4,508,649 | 6.92% |
| SME | 507 | € 81,536,013 | € 160,821 | 6.48% |
| France | 488 | € 35,907,898 | € 73,582 | 6.41% |
| UK | 19 | € 45,628,115 | € 2,401,480 | 8.36% |
| **Total** | **549** | **€ 116,095,046** | **€ 211,466** | **6.43%** |

Table 4.5: Data results on the number of minibonds, capital raised, capital raised per bond and average interest rate, divided by firm typology

In view of the table, 42 minibonds were emitted by large companies (36 in France and 6 in UK). In relative terms though, there is a considerable difference between the two countries; in the UK one company out of four is large, while in France large companies are equal to 6.9%. About one-third of the total capital was raised by large companies (€34 million) and consequently the average capital raised is much higher for them.

SMEs collected €81.5 million through 507 different minibonds. Still, a great difference exists between British and French SMEs since the average capital per minibond of the latter is 32 times smaller.

The last thing to notice is that the average interest rate is lower for large companies in both countries because larger firms have more stable cash flows, which makes them less likely to fail.

#### 4.2.1.1 Issuers' objectives

Examining the documents and press releases made available by the platforms, we learned about the objectives of the crowdfunding campaigns. Considering the very first campaign for every business, we identified three different reasons:

1. financing internal (organic) growth, among the most frequent:
    i. marketing and brand awareness;
    ii. software platform and app development;
    iii. research and development;
    iv. production investment and purchase of materials;
    v. team expansion and recruitment commercial.
2. debt refinancing, i.e., the reimbursement of other liabilities like bank loans;
3. working capital financing to raise cash in the short run to finance current operations (inventories and receivables).

Figure 4.6 displays that the primary determinant is the financing of internal growth (which affects 65.6% of the companies), followed by working capital management (20.1%) and debt refinancing in the short-run (8.4%). In 43 cases multiple purposes were declared.

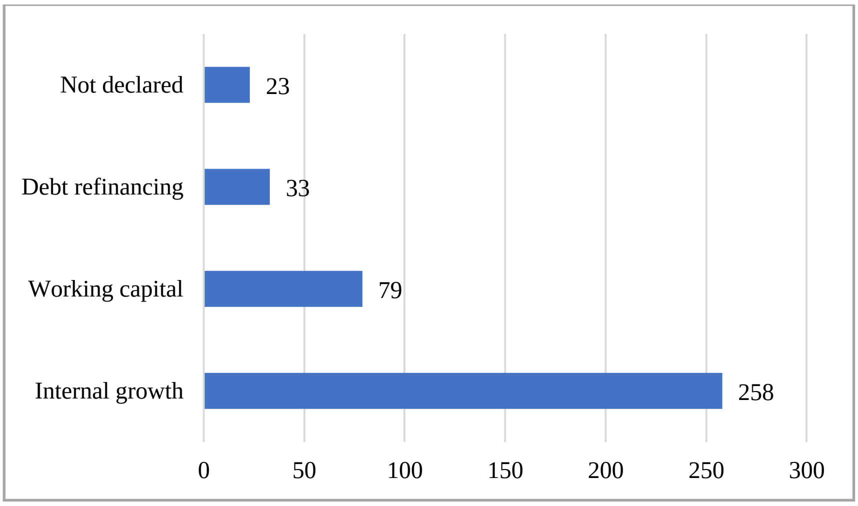


Figure 4.6: Determinants of the minibonds' issuance

## 4.3 Financial analysis of the issuers

In order to raise awareness about the issuers' financial characteristics and understand if companies can use this financial instrument to initiate or grow their business, it is crucial to analyze the financial performances before, during and (when possible) after the crowdfunding campaign.

### 4.3.1 Procedure

We have already said that 352 different companies were identified. For the financial analysis of these enterprises, we looked for the balance sheets and data on Societe.com for the French enterprises and on Company House for the British ones, which are France and the United Kingdom's registrar of companies, respectively. These data were then compared to the one found on the Orbis database, the most extensive database available with data on companies worldwide. When discrepancies between Orbis and the national databases occurred, we relied on the latter. Moreover, some more information was released by the crowdfunding platforms themselves.

First of all, the sample pointed out:

- 1 small-sized French company that in 2019 asked for an arrangement with creditors ("concordato preventivo" in Italian);
- 21 defaults associated to the 20 company's liquidation;

- 1 medium-sized English company facing an insolvency procedure;
- 2 cases (both in France) in which the new plant/shop planned by the crowdfunding project was built and closed after a short time, but the company is still in business.

Going more in-depth in the issuers' analyses that were responsible for the bond's defaults, some figures have to be outlined.

Four businesses are English, while 16 are French. There is a liquidated company that completed two projects in the French case, thus causing two defaults. In percentage terms, the default rate on the UK platforms was 16% (four defaults on 25 minibonds), while in France was 3.96% (17 defaults on 430 minibonds). In terms of size, 13 liquidated companies were small, one large and six micros. In terms of the project's year, two defaults were associated to a project concluded in 2015, 8 in 2017, 11 in 2018 and one in 2019. In this regard, it must also be that there a substantial limitation in this analysis since most of the minibonds are recent (mostly 2017, 2018, 2019), there the probability that there will be other defaults in the future is high. This expectation could also worsen due to the impact of the Covid-19 pandemic.

The capital raised by the 20 firms that were liquidated ranged from €300 to €2.5 million. This somehow clarifies that no correlation exists between the capital raised as debt and the probability of defaults. Nevertheless, looking at the liquidated companies' balance sheet, all of them were already in trouble when seeking financing, with revenues and profit in strong decline or already negative and high levels of current debt.

After having eliminated all the companies of the previous list, we analysed the SMEs' operating performance before and after the issuance (from the two years before the project date to the two years after), on the basis of the most relevant accounting ratios. Related to this, we removed from the sample the 16 large enterprises and 101 firms that had no data available (mainly for minibonds of 2019 and 2020). The final sample is, therefore, composed of 210 SMEs.

Concerning the financial ratios, we chose to examine the Return on Equity (ROE), Return on Assets (ROA), Leverage, EBITDA to Sales and Autonomy ratio.

ROE, namely the ratio between net profit and equity capital, is one of the most synthetic ratios of the company's economic results since it measures how effectively the management is using a company's assets to create profits. ROA (net profit to total assets) determines how profitable a company is relative to its total assets, taking into account a company's debt, in opposition to ROE. ROA is very representative when comparing a company to its previous performance, like in this case. The ratio between EBITDA and sales (or EBITDA margin) assesses a company's profitability by comparing its gross revenue with its earnings, thus excluding the impact of debt interest, taxes, depreciation and amortization. The leverage ratio, calculated as current debt divided by equity capital, is critical to know the company's amount of debt compared to shareholders' capital and determine its ability to meet its financial obligations. Autonomy ratio (or financial independence ratio) is defined as the ratio of equity to total assets, thereby showing the share of equity in the total asset structure and the enterprise's degree of independence from creditors.

### 4.3.2 Financial results of SMEs

Table 4.6 reports the mean and median values (in brackets) for the accounting ratios to estimate the changes in profitability, liquidity and financial leverage around year 0 (the year of the issuance). If the same firm did more than one campaign, we took the date of the first campaign as year 0.

Table 4.7 discloses the mean and median values (in brackets) of the relative percentage changes of the accounting ratios compared to year -2.

| RATIO | YEAR +2 | YEAR +1 | YEAR 0 | YEAR -1 | YEAR -2 |
|---|---|---|---|---|---|
| **ROE** | -16.98% (6.05%) | -6.27% (8.00%) | 14.50% (11.56%) | 22.66% (21.50%) | 27.70% (19.42%) |
| **ROA** | 1.11% (2.65%) | -1.99% (1.76%) | 2.28% (4.10%) | 8.12% (7.08%) | 7.39% (5.56%) |
| **EBITDA margin** | -6.51% (3.35%) | -13.20% (4.55%) | -5.14% (5.05%) | 9.49% (6.61%) | 10.20% (6.39%) |
| **Leverage** | 107.51% (61.58%) | 130.52% (63.35%) | 128.50% (58.08%) | 117.69% (39.25%) | 107.45% (42.92%) |
| **Autonomy** | 40.47% (38.41%) | 39.25% (36.40%) | 37.98% (37.23%) | 42.42% (36.51%) | 38.86% (32.45%) |

Table 4.6: Minibond issuers' operating performance: accounting ratios before and after the issue. Mean values are reported (median values in parentheses). Year 0 is the year of the minibond placement.

| RATIO | VARIATION +2 -2 | VARIATION +1 -2 | VARIATION 0 -2 | VARIATION -1 -2 |
|---|---|---|---|---|

| | | | | |
|---|---|---|---|---|
| **ROE** | -1.16% (-0.74%) | 0.12% (-0.56%) | -0.58% (-0.43%) | 10.46% (0.01%) |
| **ROA** | -0.94% (-0.41%) | -0.64% (-0.60%) | -0.91% (-0.36%) | 7.92% (0.10%) |
| **EBITDA margin** | -0.67% (-0.34%) | -4.53% (-0.29%) | -3.22% (-0.19%) | 0.88% (0.02%) |
| **Leverage** | 2.77% (0.25%) | 0.83% (0.29%) | 0.82% (0.07%) | 0.11% (-0.17%) |
| **Autonomy** | 3.09% (0.16%) | 1.12% (0.12%) | 0.64% (0.05%) | 0.37% (0.13%) |

Table 4.7: Minibond issuers' operating performance: percentage variation of the accounting ratios before and after the issue. Mean values are reported (median values in parentheses). Year 0 is the year of the minibond placement.

Looking at the first table, values referred to ROE and ROA show an increase before the issuing years and then a decrease heading towards year +2, except for ROA values between year +1 and year +2. Average values exhibit negative values for year +2 and +1 for ROE and year +1 for ROA, while median values present positive levels. However, since year +2 and +1 have outliers and/or are skewed, median values seem to be more reliable.

Concerning the EBITDA to Sales ratio, the median values trend is equal to that of ROE and ROA. Average values also display a stable decline, with negative values starting from the issuing year towards year +2.

Regarding Leverage and Autonomy, the two ratios reveal to be quite constant according to average values and in small rise if we look at median values. Therefore, companies appear to increase their debt level (and this is predictable since minibond is a form of debt), but at the same time are able to strengthen their independence from creditors.

Looking at the second Table, the trends are similar to the one described in Table 4.6. Nonetheless, two key aspects have to be underlined.

Firstly, according to both the median and average values of year -2/-1 variation, enterprises performed well the year before the campaign launch. Secondly, excluding the average values of year -2/-1 variation, the percentages worsen (or improving in the case of Autonomy) in a contained way. There is no great difference between the performance in year -2 and year +2. This can suggest that companies carried out short-term investments thanks to the minibond issuing and were able to have a return on the investments already starting from the year after the campaign.

Furthermore, we tried to analyse the companies according to the issuing year, but there was not enough data for each year to form representative samples.
Moreover, an analysis to look for a correlation between the company's age and the accounting ratios' variation was run in order to verify if "senior" companies can perform better when issuing a minibond. However, no correlation occurred.

## 4.4 Italian context

As we have seen in Chapter 3, the possibility of equity-based crowdfunding platforms to place minibonds offer is a recent evolution in Italy. However, this option seems to be a valuable mechanism since the minibond market already represents a strongly developing market in Italy, with a sustained capital growth.
As of September 2020, data show that three crowdfunding platforms have placed or have expressed their interest in placing minibonds on their portals.
The first company is Fundera, which already completed some minibonds campaigns. Fundera is a platform that believes in the development of the Green Economy, the forms of participatory enterprise, and the spread of the distributed renewable generation model. In addition to equity campaigns, Fundera is also dedicated to the donation- and reward-based type crowdfunding. In December 2018, it launched its first campaign of equity crowdfunding, which raised 226 thousand euros in July 2019.
The second portal is CrowdFundMe, one of the leading equity crowdfunding platforms active in Italy since 2014 and the only one listed on the Italian stock exchange. To date, it is not the first Italian platform in terms of the number of investors, with 95 projects concluded, 13.427 investments and €34.4 million collected.
The last platform is Opstart, created in 2015. Opstart was the first crowdfunding portal to implement crowdlisting, i.e., the collection through equity crowdfunding aimed at listing on the stock exchange. As of today, 62 projects were successfully completed, with 3.454 investments and €13.7 million financed.
The portal is now facing a period of intense development. Starting from March 2020, it has launched Crowdarena, i.e., the first digital noticeboard for the sale and purchase of shares in start-ups, SMEs and innovative SMEs, Crowdre, i.e., the new division dedicated to the real-estate segment, and Crowdbond, i.e., the new section dedicated to minibond. However, in opposition to the other two platforms presented before, it has not yet issued any minibonds.

A key element common to all the three platforms is the choice to list the minibonds on the dedicated segment of the Italian stock exchange (ExtraMOT PRO) after the collection. This means that the platform can place debt securities (primary market) and list them and follow the issuer for the entire duration of the instrument (secondary market).

As of September 2020, a review of the Italian platforms' situation is exhibited in Table 4.8.

| | NUMBER OF MINIBONDS | CAPITAL RAISED (Sum) | CAPITAL RAISED PER BOND (Average) | AVERAGE INTEREST RATE (per annum) | AVERAGE TERM (years) |
|---|---|---|---|---|---|
| CrowdFundMe | 2 | € 2,290,000 | € 1,145,000 | 5.13% | 4.50 |
| Fundera | 19 | € 9,890,000 | € 520,526 | 3.43% | 3.90 |
| **Total** | **21** | **€ 12,180,000** | **€ 580,000** | **3.59%** | **3.96** |

Table 4.8: Data results on the number of minibonds, capital raised, capital raised per bond and average interest rate on Italian platforms, divided by portals

We cannot say anything definite about the Italian experience perspective since the market is just born and can count only on 21 emissions. Nevertheless, the capital raised in these first months is relatively high (€12.2 million), and it was raised only by Italian SMEs. Also, the average capital collected seems to be significant (€580,000).

# CHAPTER 5

# MINIBONDS ON ITALIAN CROWDFUNDING PLATFORMS: EVIDENCE FROM CASE STUDIES

Since minibonds made their debut on Italian crowdfunding platforms starting from the third quarter of 2020, it was not possible to perform an empirical analysis. Therefore, it was decided to take into account and examine three different minibonds' placement on two of the leading Italian equity-based platforms, i.e., CrowdFundMe and Fundera. The three issuers were chosen from the sample of placements provided by the portals on the basis of those that seemed to be more representative and disclose the whole mechanism better. Each case study's information was derived from a direct interview of the companies' financial managers and/or owners. We are now going to expose the three cases: Innovative-RFK, Hal Service and Plissè minibond.

## 5.1. Innovative-RFK S.p.a. case

### 5.1.1 Company history

Innovative-RFK (i-RFK in short) is an investment holding company founded in 2017 by Paolo Pescetto, Massimo Laccisaglia and Andrea Rossotti, who are professionals with a solid background in extraordinary finance transactions and business strategy. The company was born on the cue of the recent MISE (Ministry of Economic Development) regulation that incentives to invest in innovative start-ups and SMEs, combining sector expertise and channeling private financial resources to support their growth and internationalization through a valorization path and a listing on AIM Italy or other SMEs' Growth Market.
Innovative-RFK was born from the experience of Red-Fish Kapital S.p.A., a company operating in the field of Private Equity with investments for about €50 million in Club Deal mode. The dedicated team has been working together for over ten years and has had a successful track record. Furthermore, innovative-RFK has an extensive network thanks to the collaboration with Arkios Italy, a qualified M&A advisor.
Innovative-RFK was the first Italian industrial holding company to open its capital in crowdfunding mode. Indeed, during the summer of 2019, the company concluded an equity crowdfunding campaign on the CrowdFundMe portal raising €2.5 million from 73 new

members, against a demand that exceeded €3 million. Moreover, as already announced during the campaign, i-RFK closed 2019 with a listing on the Euronext Paris stock exchange, confirming its connotation towards innovation. Since the listing on the stock exchange on 27 December 2019, i-RFK's share price has increased from €1.19 to €1.60 (+34.45%) per share (price per share as of October 2020), reaching a market capitalisation of €11.1 million. To date, i-RFK has invested €7.8 million in six different businesses, involving more than 120 private and qualified investors. Since the balance sheet and the revenues do not exceed €10 million and the number of employees is low, i-RFK belongs to the category of small-sized enterprises.

### 5.1.2 Core business

The rationale behind i-RFK's investments is to create value in the medium to long term by exploiting its ability to:

- identify sectors with high growth potential or subject to M&A processes;
- invest in companies that are undervalued, generally measurable through the most classic valuation methods (income methods and net present value determination);
- invest in companies with which it is possible to interact in order to develop joint activities aimed at specific projects;
- invest in companies with attractive returns and good growth prospects that require a stable core of shareholders.

### 5.1.3 Reference market and competitive advantage

Innovative-RFK operates in a market influenced by various actors structured as industrial holding companies or directly as asset management companies, which transfer private capital into target companies that may be at different levels of development (seed, early-stage, growth, maturity, turnaround). The i-RFK's focus on the investee's growth stage is a first element that differentiates the level of competitiveness. This stage allows to obtain the maximum return on investment and provide the maximum contribution in terms of know-how and development strategies.

Each player in the industry is organized differently, according to the size and ability to attract private capital, and works with a similar methodology, firstly by analysing the markets with the highest development potential and then by identifying the single companies in which directly invest.

In this context, the main stakeholders are represented by the network of investors potentially interested in the companies' equity. Therefore, it becomes distinctive to have a specific profile that allows them to specialise in a distinct market segment (market with a high rate of technology and specific applications). These investors are generally represented by successful Italian entrepreneurs who see i-RFK as an alternative instrument to invest their liquidity, becoming direct shareholders of the company itself.

On this market, i-RFK has decided to position itself in the segment of innovative companies or of those that have developed specific elements of innovation (product, process, service, ...) that allow the selected company to have a competitive advantage on the reference market, as well as being in a growth phase both in terms of turnover and profitability. This mechanism enables the selected company to use i-RFK's advice to accelerate the growth process.

The following image shows the competitive positioning of Innovative-RFK with respect to other competitors.


Figure 5.3: i-RFK positioning

*Source: i-RFK website*

### 5.1.4 Use of proceeds

The minibond contributes to the subscription of capital increases in minority stakes in innovative start-ups and SMEs. Currently, i-RFK has identified four companies characterised by significant revenue growth, excellent margins and low/no financial debt. Moreover, the companies operate in markets with strong growth prospects and enjoy a solid competitive advantage.

The investment plan of i-RFK foresees the subscription of €3.1 million as a capital increase in the identified companies, which will be supported by the residual liquidity of the holding company, by the issue of the minibond and by future capital increases.

### 5.1.5 Recent financial performances

The company has already shown its growth and profitability potential by moving from a Return on Equity (ROE) of 0.04% in 2018 to 0.19% in 2019. Consistently, the revenues and profit also grew, rising by 667% and 548% from 2018, respectively.

### 5.1.6 Minibond characteristics

Table 5.1 presents the main features of the minibond.

| **CAPITAL RAISED** | € 1.29 M |
|---|---|
| **MINIMUM INVESTMENT** | € 10,000 |
| **ISSUE PRICE** | 100% (€ 10,000) |
| **ISSUE DATE** | 30 October 2020 |
| **DURATION** | 60 months |
| **YIELD TO MATURITY** | 6.00% |
| **COUPON** | Semi-annual |
| **REPAYMENT PLAN** | Bullet |
| **LISTING MARKET** | ExtraMOT PRO[3] |
| **NUMBER OF INVESTORS** | 35 |
| **INTERMEDIARY** | CrowdFundMe |
| **CALL OPTION** | The issuer may redeem the bonds in full (on an "all or nothing" basis) on the last |

| | |
|---|---|
| | day of any calendar month beginning on 30.10.2021 and ending on 31.10.2025 (included). |
| **PUT OPTION** | Each holder may request full early redemption of its securities upon the occurrence of any one of the "Relevant Event". |
| **WARRANTY** | Unsecured |
| **RATING** | B1 + |

Table 5.1: i-RFK minibond main characteristics

First of all, as in all the three case studies, the bond was placed on the platform in order to be listed on the ExtraMOT PRO[3] market on the closing date. In this case, the minibond was offered for a maximum amount of €5 million. However, it collected only €1.29 million since it resulted in being challenging to find the 50% of institutional investors that the ExtraMOT PRO[3]' restrictions require. The company could not find enough institutional investors to cover all the amount due to the repayment structure of the bond. In general terms, the bullet plan seems to be less appealing for the market (and particularly for institutional investors such as banks or hedge funds).

On the other hand, retail investors showed a high interest in the product from the moment that the targeted investor was the retail one in the firm's view. For this reason, in order to attract smaller investors, i-RFK set the minimum investment at €10,000, which is the minimum limit imposed by Borsa Italiana for a minibond to be traded. As a result, the demand from retail investors exceeded the offer. However, the restrictions established by legislation, such as having (and demonstrating to have) a financial portfolio of €250,000, seem to have restricted access to the offer for the majority of potential retail investors.

The issuing firm decided to use the minibond instrument to diversify its financial portfolio since it was mainly financed by capital injection happened in the previous year. The idea of using the crowdfunding platform was born after the successful equity campaign the enterprise completed in 2019 on CrowdFundMe, with €2.5 million raised. After the equity campaign, the crowdfunding platform submitted a new proposal for a bond issue, which i-RFK found attractive. The i-RFK bond represents the first minibond on an Italian crowdfunding platform ever.

Paolo Pescetto, founder & CEO of i-RFK, admitted the vital role the portal played during the debt campaign. CrowdFundMe offered high visibility to the company, communicated in a clear and motivating way to the crowd, and used social media to attract those interested in the opportunity. The collaboration between the company and the platform made possible to not have other figures besides the platform itself who helped the company with the placement.

Regarding the yield to maturity, 6% represents a much higher interest than those available in the market, especially compared to companies with the same rating. This is motivated by the modest amount of the minibond and lower intermediation costs. These costs were reduced both from the issuers' and investors' perspective.

Indeed, on the one hand, the company incurred lower costs compared to dealing with banking intermediaries thanks to the fewer requirements and charges asked by CrowdFundMe. Consider that the CrowdFundMe proposal to place the i-RFK minibond was about 2% of costs (on the total amount raised), while any banking circuit usually asks for 5% plus fixed costs. It should also be considered that it is complicated for a bank to place minibonds smaller than 5 million, while CrowdFundMe offers the same possibilities and variable costs even for smaller sizes.

On the other hand, the investors could directly invest in the debt security without relying on a debt fund, which generally requires several fees. Crowdfunding allows disintermediation between the producer (issuer) and the consumer (investor), which means that there are no intermediation costs for the investor that he/she would normally have to pay. As a matter of fact, the minibonds on the ExtraMOT PRO[3], which are mainly subscribed by banks, are then repositioned within certain debt funds and re-proposed to the investors. Naturally, this structure, where there are the banks and the debt funds, carries several costs, leading to a lower return for the final saver. Thanks to disintermediation, it is as if the consumer buys the product directly from the producer and does not have to pay for distribution and other types of costs.

Besides, Innovative-RFK is planning to issue a minibond in the recent future not to list it on the stock exchange to be less constrained in terms of retail subscriptions.

## 5.2. Hal Service S.p.a. case

### 5.2.1 Company history

Hal Service was incorporated on 25 May 1990 in the form of a limited liability company, with the aim of presenting itself to the market as Third-Party Maintenance in the IBM environment through the provision of high-quality Information and Communication Technology (ICT) services.
Along with the development of personal computers, Hal Service decided to devote itself to the maintenance of mini-computers and mainframes, as well as to activities related to structured cabling and the creation of LAN networks.
Following the spread of geographical networks, with the purchase of the software house Systema, completed in 1991, its mission evolved into System Integration, while software development moved into web applications with technological and management solutions for service companies.
In 1996, the firm participated as a financing partner in the establishment of Factory House Emisfera and in 1998 the first version of Blue Money, the management software developed in Microsoft "Object Oriented" environment, was published. In 1999, the issuer started its activity as an Internet Provider. In the early 2000s, it began to develop its first experimental background in the field of telecommunications by participating in tenders for the provision of wireless networks.
In 2005, with the deregulation of wi-fi frequencies, it began to perfect its services relating to the world of telecommunications with the start of the development of the "Wireless Internet Connection" (WiC) network owned by the issuer itself, following which, in 2008, it obtained ministerial recognition as a Telecommunications Operator.
In 2014, as part of the company's growth and expansion process, a local unit was opened at the COMONEXT Science and Technology Park in Lomazzo (CO). In 2015, it changed its registered office, moving to the production plant in Borgosesia (VC), intending to provide itself with the space necessary for a radical rethink of its processes, supported by the development plan for the WicManager application, the heart of the company's information system.
On 12 December 2019, the transformation into a joint-stock company was completed, following which the firm acquired its current name of Hal Service S.p.A..
Through its activities, Hal Service intends to support companies and the public administration in developing innovative projects by offering consultancy and technical services, building specialised partnerships to meet the requirements of computerisation and

telecommunications throughout Italy in an integrated manner and within a compatible timeframe.

### 5.2.2. Core business

Hal Services developed three main business lines:

1. Telecommunication Provider: it operates as an internet provider, participating in several tenders to implement wireless networks. As a telecommunication provider, it offers the following products:
   - Wireless Internet Connection: broadband Internet connection service aimed at companies and public administrations, which relies on a transport network that is independent of that of other operators on the market;
   - WiC Mobile: business Internet connection service that allows individuals to be always connected to the computer network;
   - WiC Fibra FTTH: WiC Fibra FTTH services are based on the "Fiber To The Home" technology, providing fiber optic connectivity services with maximum surfing speed.
2. System integration and networking: it provides a wide range of IT services of system support (operating systems, databases, etc.). It also intervenes in the process of designing and managing IT infrastructures to allow different systems and environments to be interconnected and therefore usable. Besides, within the scope of system integration and networking services, the company has specialised in specific areas (local and geographical networks, cabling systems, etc.), handling all service phases: pre-sales consultancy, design phase, installation, ordinary management and maintenance of the proposed solution. The company offers solutions for:
   - Infrastructure: it is a provider of cutting-edge IT solutions with expertise in design, implementation and management of networks and IT architectures to support the technological growth of companies;
   - Cloud service and webmail: it offers various "cloud-based" technologies offered to customers as a service delivered over the network with savings in terms of maintenance and updates;
   - Security: it develops security projects to protect all types of environments and infrastructures, with a particular focus on data protection.

3. Application development: it has included a business unit in its operating structure dedicated to the development and maintenance of application software, designed and developed internally.

### 5.2.3 Reference market and competitive advantage

As previously said, Hal Service operates in the Information & Communication Technology (ICT) market. According to the Assintel Report (2020), the Italian context stands at €31 billion in 2019, up +2.3% in 2018 and with a projection for 2020 of €31.5 billion (+0.9% compared to 2019). The Covid period has forced a large part of the population to stay at home and has led to an overload of the national telecommunications infrastructures, especially for "recreational" use, partially compromising the traffic generated by work activities in networking mode. This specific situation has brought to Hal Service an increased demand both from many consumers not yet provided with a home connection and from professionals and employees who, as a greater work guarantee, have requested specific Internet Business Continuity solutions at their homes.

Hal Service guarantees excellent performance to keep companies connected continuously to the world with a view to social responsibility that takes the form of ecologically and ethically correct behaviour.

Other pillars of Hal Service's work include the service's reliability, which guarantees business continuity for companies, and the specific design of dedicated infrastructure in a secure environment.

At the beginning of 2020, Hal Service could count on more than 15,000 active customers, 150 partners, 16 million km of fiber in service and 98% of the population covered. It is part of the small-sized enterprises since it has about 20 employees and revenues and a balance sheet smaller than €5 million.

### 5.2.4 Use of proceeds

The bond issue will support Hal Service in making the following investments:

- Expansion of the headquarters in Borgosesia;
- Acquisition of telecommunications equipment and workstations to upgrade the proprietary network;
- Purchase of activation kits for new transmission lines;

– Growth for external lines, with particular focus on possible targets with licenses necessary to provide telephony services via the Internet.

### 5.2.5 Recent financial performances

The financial year ended 31 December 2019 confirmed the trend of past years in terms of increased turnover (+14% compared to 2018). However, operational costs increased, lowering the profit and EBITDA. The main financial ratios worsened, but the values are still very positive, with an ROE of 26.5% and an EBITDA margin of 13,88%.

### 5.2.6 Minibond characteristics

Table 5.2 summarizes the main aspects of the minibond.

| **CAPITAL RAISED** | € 1 M |
|---|---|
| **MINIMUM INVESTMENT** | € 100,000 |
| **ISSUE PRICE** | 100% (€ 100,000) |
| **ISSUE DATE** | 15 October 2020 |
| **DURATION** | 48 months |
| **YIELD TO MATURITY** | 4.25% |
| **COUPON** | Semi-annual |
| **REPAYMENT PLAN** | Amortizing |
| **LISTING MARKET** | ExtraMOT PRO[3] |
| **NUMBER OF INVESTORS** | 4 |
| **INTERMEDIARY** | CrowdFundMe |
| **CALL OPTION** | The issuer may redeem the bonds in full (on an "all or nothing" basis) on the last day of any calendar month beginning on 15.10.2021 and ending on 15.10.2024 (included). |
| **PUT OPTION** | Each holder may request full early redemption of its securities upon the |

| | |
|---|---|
| | occurrence of any one of the "Relevant Event". |
| **WARRANTY** | Unsecured |
| **RATING** | B1 + |

Table 5.2: Hal service minibond main characteristics

Hal Service has been working closely for years with a financial advisor who has outlined its main financial strategies. The financial advisor, named Arpe Group, is one of the main players in Italian finance, supporting the growth of companies for years. Also this minibond issue was mainly defined by Arpe Group.

The main objective of the bond was to enhance company growth. Nonetheless, the bond placement is part of a broader project of introduction to the financial markets and listing. In Arpe Group's view, the crowdfunding platform's choice stems from the desire to experiment with all the alternative channels to bank credit and be forerunners of everything that will happen in the future. The Hal Service bond was the pioneer for all possible subsequent issues by companies that the advisor supervises.

In this case, the minibond instrument is intended more as an exploration of an alternative financial channel within the company's growth process to see how the company could react and offer recognition and visibility to the brand. Arpe Group pointed out that a minibond subscribed directly by a bank such as Intesa Sanpaolo does not offer any visibility. The crowdfunding arena provides greater visibility, publicity and return on image. It has to be added that the company could have obtained bank credit without problems because it is growing fast.

Hal Service did not have a target investor because it knew that the offer was already seen as very appealing for institutional investors. This is the reason why the bond was burnt in a brief time (15 days) and only institutional investors (4 in total) invested.

Moreover, the crowdfunding portal was an accelerator of the process, i.e., the sounding board of CrowdFundMe operations facilitated the placement. However, in this regard, since only institutional investors invested, Arpe Group underlined that there were no significant differences compared to the traditional direct placement on the ExtraMOT PRO segment. In case (maybe in the future) retail investors come in, the platform will play an even more critical role.

Looking at the yield to maturity, we can notice that the interest rate is much lower than i-RFK's one. Indeed, Hal Service and its investors had to pay for the financial advisor's intermediation.
Regarding the future, Arpe Group has already planned to issue several minibonds for other companies they manage and possibly to finance another issue for Hal Service.

## 5.3 Plissè S.p.a. case

### 5.3.1 Company history

Plissè S.p.A. was born in 1988 from the idea of Morena Bragagnolo and Paolo Mason to create, after years of experience in the textile sector, a clothing line that reflected a modern, cosmopolitan woman, in step with the times through the use of the SFIZIO brand.
In 1994 Plissè, after having participated in the first international fair, started a project of internationalization through a development plan on foreign markets by exporting its brands all over the world. In 2000 Plissè created the brand BEATRICE.b to expand the positioning in transversal markets: SFIZIO for a dynamic woman and BEATRICE.b for a sophisticated woman. In 2003, in order to cope with the new logistical and commercial needs linked to growth, the company changed its headquarters, tripling its space.
In 2006, continuing the consolidation project within the fashion industry, Plissè opened its first flagship shop in Jesolo Venice. This shop would be part of a pilot project, which would lead first to the consolidation of the so-called "Topline Shop" on the national territory and then to export the presence in the main fashion cities worldwide.
In 2011 it created the brand SMARTEEZ, a robust research brand aimed at a niche clientele positioned at the top of the segment of women's fashion proposals. In order to increase and strengthen the overseas business, in 2013 the Company opened a subsidiary in the United States Plissè USA inc, 100% controlled by the holding Plissè S.p.A.
In 2015 Plissè finally inaugurated an elegant showroom in the fashion center of Milan, operational since January 2016.
Plissè crossed the finish line of 30 years and prepared to celebrate 2020 in grand style with a series of projects that touch distribution and product. It will open a boutique of about 180 square metres on two levels under the BEATRICE.b brand in the heart of Milan. This will be the third retail shop in Italy.

One of this anniversary year's major projects is the debut of the newly-launched BEATRICE.b and SFIZIO e-commerce sites. New channels will be managed from an omnichannel perspective, involving a fruitful dialogue between offline and online.
The health emergency that began at the end of 2019 and continued for the first four months of 2020 also impacted the business, which immediately put measures in place to mitigate its effects. Plissè has reconverted part of its production by starting the manufacture of sanitary material such as gowns, bibs, masks and tunics. All the new material uses the fabric known as "TNT" (non-woven fabrics) to meet all the medical environment's technical standards. Supplies of the material have gone to the Italian Civil Defense and hospitals, showing good profitability. Production continued throughout 2020 to offset the drop in demand in traditional business lines.

### 5.3.2 Core business

Plissè develops three main brands:

- SFIZIO: brand expression of a strongly cosmopolitan Made in Italy, aimed at the target of feminine women but at the same time dynamic and gritty. The garments are enriched by stylistic details and finishes that personalize all the models;
- BEATRICE.b: a brand based on a concept of measured luxury aimed at a more sophisticated, elegant and refined woman. The collections are presented as a mix of looks that give freedom to the imagination and allow to give life to a transversal product, both in taste and age;
- SMARTEEZ: an innovative brand aimed at a female audience that pays particular attention to fashion trends.

### 5.3.3 Reference market and competitive advantage

Plissè is an Italian fashion house that has combined the know-how and authenticity of Italian taste with a cutting-edge business style for thirty years. As a forge of ideas and a meeting place for people, the company has always set itself the goal of growing worldwide while maintaining a company structure with increasingly internalised production processes, allowing the exchange of ideas between people. This type of structure, which is also included in the company's value proposition, shows a strong cross-sectional approach compared to competitors and a position among the market leaders.

Plissè operates in almost all parts of the world. Italy accounts for 48% of turnover, Europe 31%, Russia 12%, America 5%, Asia 3%. The widespread distribution is ensured by more than 50 employees, which places the firm in the category of medium-sized enterprises.

The lines' quality and aesthetics come from a united team that works together to create a 100% made in Italy product every day, perfectly integrated into today's market.

In addition to a sales monitoring component, on-site technical and sales consultants assist the company with market research projects in order to bring constant information to headquarters regarding the type of product required from season to season and to maximize sales further.

Through cost leadership or product differentiation and fully customizable products, customer loyalty is the two key elements that the company struggles to be a step ahead with respect to its competitors.

### 5.3.4 Use of proceeds

The minibonds are issued to support a strategy to upgrade and reconvert production capacity to counter the adverse effects of the Covid-19 health emergency. Plissè has promptly embarked on a path of diversification by making available its know-how to produce "personal protective equipment" (PPE). The estimated cost for the acquisition of specific raw materials (in particular TNT fabric, the fundamental element for masks and gowns) for the 2020 financial year is €700,000. The particular emergency conditions at a global level and the strong demand for this fabric have generated dynamics whereby suppliers request advance payments. On the other hand, payment by healthcare institutions, customers of the Issuer, who purchase gowns and masks, takes place on average within 90 days. The misalignment of incoming and outgoing cash flows generates a financial requirement that the issue of the minibonds will meet.

### 5.3.5 Recent financial performances

During the 2019 financial year, the previous years' positive trend persists and results in a turnover of €23.5 million, up by €1.2 million (+5.44%) compared to the 2018 financial year. EBITDA amounted to €2.8 million , up 7.11% compared to the 2018 financial year. The positive trend is due to a more than proportional growth in revenues (+2.75% in 2018) compared to costs (+2.23% in 2018).

EBITDA margin also improved slightly, which stood at 11.86% in 2019 compared to 11.52% in 2018. The improving figures also positively affect EBIT, which stood at €2.1 million , up 7.70% compared to 2018. Profit is up from €1,085,537 to €1,315,619. Besides, ROE increased from 14.98% in 2018 to 15.73%.

### 5.3.6 Minibond characteristics

The Table 5.3 displays a summary of the bond features.

| **CAPITAL RAISED** | € 750,000 |
|---|---|
| **MINIMUM INVESTMENT** | € 50,000 |
| **ISSUE PRICE** | 100% (€ 50,000) |
| **ISSUE DATE** | 12 June 2020 |
| **DURATION** | 24 months |
| **YIELD TO MATURITY** | 4.00% |
| **COUPON** | Semi-annual |
| **REPAYMENT PLAN** | Bullet |
| **LISTING MARKET** | ExtraMOT PRO[3] |
| **NUMBER OF INVESTORS** | 1 |
| **INTERMIDIARY** | Fundera |
| **CALL OPTION** | The issuer may redeem the bonds in full (on an "all or nothing" basis) on the last day of any calendar month beginning on 12.06.2021 and ending on 12.06.2022 (included). |
| **PUT OPTION** | Each holder may request full early redemption of its securities upon the occurrence of any one of the “Relevant Event”. |
| **WARRANTY** | Unsecured |
| **RATING** | B1.2 |

Table 5.3: Plissè minibond main characteristics

First of all, it has to be said that Plissè has encountered many problems or constraints in obtaining funding from the banking channel in the past. On the one hand, there is a problem of time and bureaucracy because the banks' bureaucratic mechanism is very complex and time-consuming.. On the other hand, there is a problem linked to obtaining financing from the banks, especially in a difficult context like the Covid-19 crisis, where banks ask for more and more guarantees to be provided.

Under these circumstances, Plissè found in the minibond a solution that can directly replace the banking sector, offering a more simplified and faster way of gaining funds. The company has already placed on ExtraMOT PRO[3] four minibonds:

- short-term minibond listed in November 2019 and matured in July 2020, placed initially for 650 thousand euro and then increased to 750 thousand;
- the issue of one million euro in August 2019 with a coupon of 2.7%, matured in September 2020 and entirely guaranteed;
- the €750,000 minibond listed in October 2018 and expired in October 2019, fully guaranteed;
- the €500,000 minibond issued in December 2017 and expired in September 2018, also completely guaranteed.

In this context, Plissè comes from a long partnership with Frigiolini Partners (the owners of the Fundera portal), who has played the role of financial advisor to sustain the company's core business. It assisted the company in all the previously mentioned issues. From a firm perspective, the crowdfunding platform's placement has not changed the overall mechanism with respect to previous issues, particularly analysing the situation in terms of costs, since the company already had a contract with Frigiolini. Moreover, Plissè did not operate directly on the portal and the investor (an institutional one) was already known before the placement. This is the reason why the minibond was closed in one day and no other investors were able to participate.

The platform offered visibility to the firm, but Plissè already had an agreement with an institutional investor who did not allow it to test the ground, i.e., to see if other investors showed some interests in the minibonds.

The bond's interest rate was decided based on market rates and companies with a similar net financial position.

During the interview there was a key element that became evident. In SMEs' view, the minibond instrument seems to be a costly mechanism, both in terms of the advisor's remuneration and in terms of the minibond issuance rate, which has to be somewhat higher than the market rate. These obstacles, combined with the low rate of financial literacy that characterized the Italian scenario, discourage enterprises from following this path. However, the cost and, above all, the time of issuing a minibond are lower than that of traditional banking practices.

Looking at the future, Plissè has already planned to use the same instrument also in 2021, perhaps with a long-term structure. The idea is to better exploit the advantages that the platform could offer and find investors (retail or institutional) in a moment in which it is not easy to attract them.

## 5.4 Overall considerations based on the case studies

As we can see from the case studies, although the general procedure was the same in all three cases, each issue was characterised by elements that considerably differed. We have remarked how in some cases the issuer operated directly on the platform, while in others, it was the platform that handled the whole process. We have also observed how the minibond was conceived both as an alternative instrument in order to diversify the sources of financing and as a primary method of financing, completely replacing the banking channel. Although the bond issued were all listed on the ExtraMOT PRO[3] exchange with similar ratings, we noted how the issues' objectives and intrinsic characteristics were very diversified.

After analysing the case studies in detail and highlighting their similarities and differences, it seems crucial to focus the attention on three aspects that deserve to be explored in their complexity.

The first aspect that needs to be investigated concerns non-professional investors' role and, in particular, the call for greater protection towards them, compared to the institutional category. Indeed, we have seen that, especially in the case of i-RFK, there were a few investments made by retail investors, who were used to investing in the more traditional equity or lending crowdfunding. These investors could be fundamental for SMEs since their investments could fill the gap between the amount that is requested by the issuer and the amount that institutional investors are willing to cover. Therefore, in a period in which it is not effortless to find investors, the retail category could constitute a source of funding that could meet the companies’ necessities.

However, it is necessary to consider how this category of investors can be protected to bear the risk associated with minibonds, which have always been regarded as high-risk instruments. In this regard, this class of investors is recognized to consist of unsophisticated investors, who are more likely to make uneducated investments. This kind of investor is usually driven by personal goals and is identified as an individual person and not as an entity such as pension, mutual fund companies or banks. It is acknowledged that a legal system cannot "prohibit" irrational behaviour that characterizes retail investors. However, regulations can serve as incentives for financial organisations to control irrational behaviour better and protect investors.

In a clear way, we can say that, as already mentioned in the previous Chapters, the introduction of MiFID II requires a greater focus on elements related to risk tolerance and the investor's ability to bear any losses. It is precisely for this reason that the regulations in force are binding concerning the demonstration of certain requirements on the part of the minibond investors, i.e., the possession of a portfolio of financial instruments worth more than EUR 250,000. However, it is also true that the field is open to investors who undertake to invest at least EUR 100,000 per subscription after declaring that they are aware of the risks involved. It is precisely this last part that could give rise to some concern, as it has to be understood whether investors are fully aware of all the features and eventualities of what they are investing in.

Some doubts can arise on the investor side, especially for the retail category regarding knowledge and competence in finance. Therefore, we should start by saying that a first fundamental element that needs to be taken into account for the protection of retail investors concerns the level of financial education. Referring to what has already been said about the level of financial education in Chapter 1, a question comes spontaneously: how is it possible that an Italian citizen, who almost does not know the meaning of inflation, can understand all the risks and opportunities he or she incurs in a financial transaction if they are not even clear and explicit? Therefore, it remains to see how the various institutions can modify their strategies, adapting to the MiFID II Directive, trying, as far as possible, to educate the Italian citizen, which can be really believed as the first form of investor protection.

In addition to increasing the level of financial literacy through investor education, the issuer or seller is required to provide complete and accurate information on the product offering in a timely manner. This includes disclosure of any adverse information and risks concerning the issuer or the offer, as well as updating relevant information or making material changes to information already disclosed. The effectiveness of disclosure-based regulation depends on recipients' ability to process and understand the information available to them. Today's investors are overwhelmed by the information in the prospectuses, product disclosure statements, financial reports and analyses through the media, including advice from professionals or friends and family. Few individual investors have the capacity or time to carefully analyse the information available on crowdfunding portals in order to make an informed decision. Information that is too detailed or too technical may prove counterproductive if it confuses investors and discourages them from using the disclosure documents. In short, it is quality rather than quantity that is important.

Nowadays, it is widely recognised that "too much information kills information". As consumers differ in the information they would find valuable, and in order to avoid gaps in disclosure, there is a risk of too much information being provided. This can have the effect of either misleading consumers or inducing them to ignore all information, with the result that the disclosure requirements could undermine their purpose.

Crowdfunding platforms have tried to make the information easier to understand with guidelines on the format of the information. For example, the CrowdFundMe portal, in addition to the admission document, provides a product highlights sheet summarising the main information about the offer, which is more straightforward for retail investors to understand. This product highlights sheet serves the function to supplement the lengthy prospectus and disclosure documents and present the key features of the offer to the client before making an investment decision.

However, we can say that, in general, crowdfunding portals allow people to invest their savings without having to pay any fees associated with the operation. Above all, this allows to facilitate the process and avoid problems related to the so-called hidden costs. Indeed, many times investors are not told all the costs they have to bear in order to use such a financial instrument, or it is the investor who ignores the critical investment costs because he or she can be confused or obscured by small print and jargon. It has to be remembered that investing in certain financial instruments even through an investment fund may involve marketing costs, annual and custodian fees, beware loads and commissions and other costs such as purchase and redemption fees.

Besides, in order to maintain investor confidence in the market and ensure greater usability of information, crowdfunding platforms have established a communication process in which investors can get clear and timely answers to their queries. They created a dedicated section on their website to interact directly with the issuing companies and get answers to any potential questions.

Continuing with this analysis, one could open a parenthesis on the risks outlined in the admission document or other documents related to the minibond in question. The risks of the investment should be explicitly explained to the investor. For example, investors should be warned that they may lose some or all of their invested capital, rather than merely listing the likely investment risks.

Also related to this topic of risks and in particular risk warnings, we have already seen in Chapter 3 the solution introduced in the UK, namely a ban on the promotion of speculative minibonds to retail investors from next year, using special powers that circumvent public consultation. The FCA said consumers typically invested more than £25,000 in these minibonds and the risk of losses was sufficiently severe and immediate to make it necessary to introduce temporary product intervention rules without consultation. The regulator was concerned at the scope for promoting of minibonds to retail investors who do not have the experience to assess and manage the risks involved.

Furthermore, as regards the guarantees that can be provided for minibonds, it should be noted that, where there is no prior agreement with other guarantee funds, the former guarantee mechanisms of the Central Guarantee Fund (CGF) remain valid for SMEs and mid-caps, according to the rules consolidated under the Destination Italy decree (Decree 145/2013). Notwithstanding, the Fund's direct guarantee can only be requested by banks, financial intermediaries, and managers on individual minibond subscription transactions or minibond portfolios. Accordingly, retail investors are excluded from the scheme. Hence, they have two options: either assume the full risk of possible default or rely on individual surety agreements with banks or other financial entities. In this sense, the second option seems to be remarkably costly to bear and it also restricts the freedom of the investor who is once again forced to be dependent on the banking channel. One might even consider extending or creating guarantees for the retail category as well, in order to reduce the gap with the institutional sector.

A second element that should be emphasized involves the new possibilities from which the issuing companies can benefit. It is interesting to remark which new aspects are being created that could not be exploited until now.

First of all, once again, it appears important to draw attention to the investor side. Indeed, the new legislation enables the exploitation of a new market segment of non-professional investors attracted by the campaigns. This represents a new opportunity for both companies and investors. It is difficult for a company to directly reach this category of investors through financial channels different from crowdfunding.

Broadening the audience of possible backers of the project transforms the company's strategies. In this regard, it is necessary to convince people to invest in the project, also leveraging less rational values, such as emotional and psychological perceptions.

We have seen how the availability of new investors is compelling, especially when there are already difficulties in the traditional financial channel, as in the case of Plissé. Linked to this stands the fact that the crowdfunding portal's simplicity and immediacy can allow a personal relationship to develop between the company and the investor and then transfer it into what would be a company-customer relationship.

Furthermore, crowdfunding gives minibonds the chance to be structured in a non-traditional way. For instance, we have already seen how, in the case of i-RFK, it was possible to promote the "bullet" repayment scheme of the bond, although it is known that the interest of institutional lenders (especially banks) is mostly directed towards the "amortized" mechanism.

In this respect, the new market that has emerged may give rise to a broader diversification of bond mechanisms and forms. As an example, the difference between the minimum chips in the three cases leads to realizing the wide range of choices. It illustrates how crowdfunding could lower the minimum investment threshold to incorporate small investors.

Even if in the three cases we dealt with, the minibonds were all listed, there is a willingness (especially from i-RFK) to try not to list it in order to be less dependent on the constraints linked to the ExtraMOT PRO[3] market, such as the one referring to the minimum percentage funded by institutional investors. In the past, not listing a minibond was only feasible if all investors to cover the amount in question could be found in advance. Now crowdfunding provides the ability to find new investors more effectively.

Furthermore, by supposing that the company is in possession or can develop the financial expertise to be more independent from advisors, it can complete the instrument's placement, significantly reducing operating costs and offering more attractive interest rates for investors. Associated with the reduction in costs stands the shortening of timeframes, which is a critical factor in obtaining funding sources.

The last element to be better investigated concerns the presence of possible synergies and/or correlations with respect to possible equity crowdfunding operations that took place before or could be started after.

More than synergies, it could be said that the equity campaign could be seen as the forerunner of the minibond campaign or vice versa. The platform's knowledge certainly helps to make a subsequent campaign because the enterprise becomes aware of all the practices and procedures. Nevertheless, even more important is the reverse feedback. If the company decides to launch a second campaign on the same platform, the portal and the investors are already familiar with the company.

Actually, if the first campaign has gone well, on the one hand, we find that the platform has an incentive to encourage and propose a second campaign (be it equity or debt); on the other hand, we have the investors who have invested in the first campaign and, in addition to having the desire to reinvest in the same purpose, go on to form the basis for so-called "Word of Mouth" marketing (WOMM). Word of mouth has the advantage of spreading knowledge about both the brand and the product/service promoted by the company. It has always been considered one of the most powerful sources of information. However, with the Internet, it has become an even more effective tool for disseminating advertising messages: the potential breadth of the network, the high speed at which information is disseminated, the variety of means available (e-mail, social networks, etc.) and the possibility of gathering information and measuring results.

As a backer of the project, it is more willing to help again a company that has proved to be able to make something real out of the contribution and that has guided the investors through the whole process making him/her feel an essential part of it. For instance, the project owner’s post-funding relations-building efforts with the crowd could matter. In the crowdfunding context, project owners providing backers with regular updates after successfully supporting their previous campaign can help gain a sense of trust and community. In the end, this is what gives rise to the social capital phenomenon, which represents “the sum of actual and potential resources embedded within, available through, and derived from the network of relationships possessed by individuals or social units” (Nahapiet and Ghoshal, 1998). The social capital accumulated by project owners in previous crowdfunding campaigns positively influences the results of the subsequent crowdfunding campaigns.

Besides, exploiting existing relationships is an essential element that helps to save economic time and marketing costs for sponsoring the new campaign. Reducing financial costs can have a significant positive effect on the company's general profitability, especially for low-margin SMEs, where a modest cost reduction has a more significant impact on the bottom line. Decreasing procurement time increases the time value for money, following one of the main basic financial principles according to which a euro today is worth more than a euro tomorrow.

For the reasons that we have just listed, a subsequent campaign appears to have more determinants for the success of the project and the backers' satisfactions. Consequently, the subsequent campaign could demand a higher amount to be reached, pleasing the firm's financial lack and the compensation of the investor.

# CHAPTER 6

# CONCLUSIONS

## 6.1. Summary of main results

The purpose of the current dissertation is to contribute with novelty to the limited literature regarding the European and Italian minibonds' market, examining the recent phenomenon concerning the placement of these financial instruments on crowdfunding platforms. In particular, the research objectives are to determine whether minibonds, offered on crowdfunding portals, could reveal to be a beneficial way for the Italian market in the near future, also evaluating the outcomes of the main European experiences in the UK and France. In order to perform these analyses, it has been necessary to build a sample of minibonds, starting from the total amount of issues from 2014 to October 2020, individuated on British and French crowdfunding platforms. Then, an evaluation of the results obtained has been presented, highlighting the main features of the bonds, investors and issuers. Consequently, an overview of the first placements on Italian platforms has been disclosed. As a final step, three different Italian cases were examined in detail.

Conclusions can be divided into two different areas:

- the relevant developments and the role of this financial innovation in contributing to the value creation into the real economy, interpreting the results constituted by the British and French samples;
- the outcomes and outlooks emerging from the case studies in order to understand the prospects of the Italian market.

For what concerns the first point, the results indicate a total of 549 minibonds, which corresponds to an amount raised of more than 116 million euros. Excluding the bonds issued by unknown companies, 352 different firms succeed in accessing financing through the campaigns. Although other important features have already been underlined in Chapter 4, several key findings has to be pointed out. Evidence shows that several firms decided to take more than one minibond campaign on the same portal. This could be considered a symptom of confidence in the combination of crowdfunding and minibonds, given by the necessity to find alternative financing sources. In this respect, we have already discussed the importance that alternative instruments represent to either find or diversify the sources of funding.

An implication of the above lies in creating value in the real economy, thus allowing enterprises to finance their needs and developments. Crowdfunding tools provide new ways that lower the costs that companies have to sustain to issue minibonds compared to alternative segments of the stock exchanges (fees are usually lower).
Moreover, crowdfunding portals can provide companies a more effective way to be known by customers than stock exchanges. Indeed, let us benchmark the number of large and well-known issuers on the ExtraMot PRO segment in 2019. We can see that, even if financial advisors and consultants support the companies and sponsor the issuing on the stock exchange, large and established enterprises represent 43% of the total (Italian Minibond Industry Report, 2020). This percentage is much higher than the one found in this paper's samples, considering both the UK and French samples and the Italian one.
Furthermore, crowdfunding platforms can offer other non-financial advantages. Businesses can receive feedback from investors or use the crowdfunding campaign as a powerful marketing tool to effectively build the right brand image, increasing the possibility of receiving other funding forms.
One of the more significant findings that corroborates the minibonds' contribution to the real economy is the issuers' objectives. We have seen how the proceedings from the campaigns are intended to be mainly used for internal business growth. This means that the focus is to improve activities that allow enterprises to satisfy customers' needs and desires in a better way.
Regarding the investors' side, we have observed how minibonds can be a solution for institutional and retail investors since the projects allowed them to invest their funds to more than 50,000 investors.
Looking at the financial perspective, we can confirm these instruments as risky products since the default rates were high (3.96% in France, 16% in the UK). However, all the companies that went bankrupt were already in trouble when seeking financing, with revenues and profit in decline or high debt levels. Going more in detail with the aid of the financial ratios, we can affirm that companies were mostly able to have a return on the investments already starting from the year after the campaign.
We can now focus on the second point of the conclusion concerning the Italian case studies research. We noted that the cases presented minibonds with different characteristics in terms of interest rate, type of investors involved and relationship between platform and issuer. These differences were also evident in the companies' understanding of the instrument and

their stated objectives. However, it has been decided to investigate some elements that require a certain attention for the future.
The first element concerns the protection of non-professional investors and the need to increase protection for them compared to the institutional category, which is subject to lower risks. In this sense, it was stressed that the minibond is a high-risk instrument and proposals were made to protect better retail investors, such as specific guarantees, increase in financial education and improve the information to be provided to the investor.
The second element emphasized relates to the advantages of this new financing method to companies and investors. The latter can take advantage of this new possibility that can raise the yield to maturity thanks to the disintermediation. The former can reach new investors more efficiently, taking advantage of the higher media advertising resulting from the crowdfunding platform. This new possibility may also increase the diversity of forms (interest rate, amount) and modalities of minibonds (repayment schemes), especially those that banks are averse to subscribe to, such as the bullet repayment.
The last element concerned the presence of synergies between the minibond campaign and a possible equity crowdfunding campaign. More than synergies, we see how already knowing the modalities and having built relationships with the portal, could save time and costs effort for the issuing company.

## 6.2. Limitations and recommendations for future research

This dissertation provides important elements to interpret the evolution of the minibonds market on participatory platforms. However, it is essential to note the methodological limitations involved in the studies.
First of all, it has to be understood that in Chapter 4 we have described data based on a relatively small sample of emissions. Besides, the information associated with each bond issuance was sometimes incomplete, thus reducing the total number of characteristics considered.
Furthermore, it has to be realised that the implications elaborated for the Italian market derive from case study analyses, bringing with them all the potential limitations of a case study approach. Therefore, even if the analyses provided detailed and qualitatively rich information, there is a possibility that the examples may not be representative of the entire population. Since a case study deals with only one situation, we can never be sure that the

three cases studied represent a larger body of similar cases. This means that conclusions drawn from these cases may not be transferable to other settings.

The case study research method also lacks scientific rigour as there is an absence of methodological guidelines and systematic procedures. This lack of rigour is linked to the problem of distortion generated by the subjectivity of the researcher and other people entailed in the case. When conducting a case study, the author could form a bias, which may be for the subject, the form of data collection, or the way the data are interpreted. This is very common, as it is acknowledged for human beings to be subjective and focus on the aspects they find most relevant, making them unaware of other possible issues.

In this respect, this work suggests several areas for future research. The idea is that going forward, a large number of issues will be available in order to form a consistent data sample for quantitative and econometric analysis. In this way, it would be possible to have a clearer idea of the characteristics related to minibonds, such as yield to maturity and amount, as well as those related to investors and issuing companies. A comparison could also be made with minibonds issued without the crowdfunding platform's support. The main determinants of the cost of debt could be analysed, trying to understand if the spread in the yield, intended as the difference between the yield at maturity of the security and the European risk-free rate curve, is influenced by some variables and to what extent.

It is also possible to investigate the similarities and differences with other European countries that make use of this instrument.

Accordingly, it is evident that further developments of this topic with more data availability would be valuable.

## Appendix – Final sample – List of emissions

| COMPANY NAME | COUNTRY | YEAR OF CROWDFUNDING |
|---|---|---|
| BrewDog | UK | 2015, 2016, 2019 |
| London Real Estate | UK | 2016 |
| Norwich City | UK | 2018 |
| Hambledon Vineyard | UK | 2015 |
| INNIS & GUNN | UK | 2015 |
| Pocket Land | UK | 2015, 2016 |
| HAB Land | UK | 2017 |
| Pescara Calcio | UK | 2018 |
| Chilango | UK | 2014 |
| Taylor St baristas | UK | 2015 |
| Eden Project | UK | 2014 |
| Grind | UK | 2015 |
| Frosinone Calcio | UK | 2018 |
| SP MARKET LIMITED | UK | 2015 |
| River Cottage | UK | 2014 |
| Prodelec | France | 2020 |
| Daisy Green Food limited | UK | 2015 |
| Compagnie de construction | France | 2019 (2) |
| Dalkia | France | 2019 |
| Square Pie | UK | 2015 |
| Enerlis | France | 2019, 2020 |
| Peinture sol ravalement | France | 2019 |
| CIE GENERAL DE CLEANING | France | 2019 |
| Zénitude Groupe | France | 2019 |
| NETCO GROUP | France | 2019 |
| AFQR | France | 2019 |
| SULPICE SAS | France | 2020 |
| GROUPE AVENIR | France | 2020 |
| FFL | France | 2019 (2), 2020 |
| Innovent | France | 2017 (3), 2019 |
| Stevenage Football Club | UK | 2017 |
| MJ Location | France | 2019, 2020 |
| JH Consulting | France | 2018 |
| SAS Armagnac Bois | France | 2018 |
| JOSSO SA | France | 2019 |
| CCA | France | 2018, 2019 |

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| Clearwell | UK | 2017 (2) |
| Wind Energy Project GreenWave | France | 2019 |
| POD Point | UK | 2016 |
| Isolation Thermique Bomba | France | 2019 |
| OFH | France | 2018 (2) |
| Gardner Aerospace Mazeres | France | 2018 |
| Valorem | France | 2017 (5), 2018 (5), 2019 (2), 2020 |
| Pod | France | 2018 |
| SABEO FRANCE | France | 2020 |
| SETIC | France | 2017, 2018 |
| EVOLLIS | France | 2019 |
| EDF Renewables | France | 2017 (2), 2018 (2), 2020 |
| IEL | France | 2017, 2018 |
| Oxade Consulting | France | 2019 |
| Horizons Heureux | France | 2018 |
| Enekio | France | 2018 |
| TRIPARTITE | France | 2018 |
| Enertrag | France | 2017, 2018 |
| Galaxie Presse | France | 2019 |
| SFRI Medical Diagnostics | France | 2017 |
| Air Marine | France | 2018 |
| ETS BAYLE | France | 2020 |
| Synapse | France | 2019 |
| B Square | France | 2019 |
| Heritage Value Cap | France | 2020 |
| Le Bon Georges | France | 2020 |
| Bustronome | France | 2019, 2020 |
| Falvieux (VOL-V) | France | 2020 |
| Rentmat BTP | France | 2019 |
| AMS Evenements | France | 2018, 2019 |
| La Cuisine Itinérante | France | 2018 |
| Générale du solaire | France | 2017 |
| Camping de Fontaine Vieille | France | 2018, 2019 |
| RP Global | France | 2017 |
| Db&M Partners | France | 2020 |
| Trait D'union Optic | France | 2020 |
| Ympact | France | 2018, 2019 (2) |
| Hugues | France | 2019 |
| Groupe Bernard Samuel | France | 2018 |
| Agenium Group | France | 2018 |

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| Dege Trading | France | 2018 |
| Progiss | France | 2020 |
| Label Emmaus | France | 2017 |
| Camping du Port de Plaisance | France | 2019 |
| Beka Transport | France | 2018 (2) |
| SARL Paurion Freddy | France | 2019 |
| H2air | France | 2018, 2019 (2) |
| WIT France | France | 2018 |
| Apex Energies | France | 2017 (2) |
| Le Cafe De St Malo | France | 2019 |
| Laroussi | France | 2018 |
| Camping Bel Air | France | 2018 |
| Online Sales Platform | France | 2019 |
| Story France Sarl | France | 2018 |
| Terre D'opale | France | 2019 |
| My Funds Office | France | 2019 |
| BayWa.re | France | 2017 (4), 2018 (4), 2019 (5) |
| Wind Energy Project Acignè (P&T Technologie) | France | 2017 |
| Maison Heraud | France | 2019 |
| LBL Consulting | France | 2018 (2) |
| EDP Group | France | 2018 (2), 2019 (2) |
| Plastiform | France | 2019 |
| Michel Simond developpement | France | 2018 (2) |
| H&H Partners | France | 2018 |
| Service Entretien Maintenance Paca | France | 2019 |
| Wind Energy Project Saint-Ellier-les-Bois (ABO Wind) | France | 2017 |
| BMC | France | 2018 |
| Ambulances du Confluent | France | 2018 |
| Merim Services | France | 2018 |
| MAT'ENVIRONMENT | France | 2019 |
| Jean Louis Guyonnet | France | 2019 |
| Nganalytics | France | 2018 |
| WAYNA | France | 2018 |
| LCE | France | 2020 |
| Sarl Montaut et fils | France | 2018 |
| Cultival | France | 2018 (2) |
| La Tomate Gourmande Sarl | France | 2019 |
| GP JOULE | France | 2018 (2), 2019 |
| WKN GmbH | France | 2017, 2018 (2) |

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| Global Energie | France | 2019 (2) |
| Etablissements Bessier | France | 2018 |
| Boulangerie Youssef | France | 2017, 2018 |
| BS Conseil | France | 2019 |
| Yann Castel Courtage | France | 2018 |
| Vidourle-Sport | France | 2018 (2) |
| Wind Energy Project Porspoder (ERG) | France | 2019 |
| MIX CAR | France | 2019 |
| BYS | France | 2018 |
| Sarl La Gourmandine | France | 2019 |
| JD Number | France | 2018 |
| Bennes Services | France | 2018 |
| 3C Ingenierie | France | 2018 |
| Antefixe | France | 2019 |
| Easyflex | France | 2020 |
| Capital Etude Et Transactions Immobilieres-Assurances | France | 2019 |
| PMCA | France | 2019 |
| GIRAUD | France | 2018 |
| Manuma | France | 2018 |
| Alternance Auvergne | France | 2020 |
| PRAGMA 9 | France | 2019 |
| Rene Livet | France | 2017 |
| Eurocape New Energy | France | 2019 (5) |
| Alpha Demenagements | France | 2019 |
| Jardin Profil | France | 2018 |
| Elicio NV | France | 2019 (2) |
| Groupe Allio | France | 2017 (2) |
| Wealth Conseil | France | 2019 |
| V.I.D.A OPTIQUE Sas | France | 2018 (2) |
| LOC + | France | 2019 |
| COD Formation | France | 2018 |
| Côte des Vauzelles (RES) | France | 2018 |
| Institut Francais De Zootherapie | France | 2019 |
| Avenir Energie | France | 2018 |
| ACEI | France | 2018 |
| CELUGA | France | 2018 |
| Mina El Agaybi Sarl | France | 2018 |
| ABH Partners | France | 2018 |
| GLOBALDECISSIION | France | 2019 |
| Ceira Telecom | France | 2019 |

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| SAI Nutrition | France | 2018 |
| A2H Sarl | France | 2019 |
| LE-CUB Sas | France | 2019 |
| Cartolia | France | 2018 |
| Webradios Editions Sas | France | 2019 |
| Erdyn Consultants Sarl | France | 2019 |
| STE ATRIBORD & ASSOCIES | France | 2018 |
| Tamaplace Sas | France | 2018, 2019 |
| France Cacao Sarl | France | 2018 |
| Sauerbrei Logistics France Slf | France | 2019 |
| Solar Power Plant Angers and Beaucouzé (Alter Energies) | France | 2019 |
| Tanal Caribbean | France | 2017 |
| Xingaren Etxeha Sarl | France | 2020 |
| GE LOC Sarl | France | 2018, 2019 |
| Europe Plein-air | France | 2017, 2018 |
| RD Manutention | France | 2017, 2018 |
| Groupe Option | France | 2017 (2), 2018 |
| ML TRANSPORTS Sas | France | 2019 |
| Havraise de Nettoyage et de Peinture | France | 2017 |
| NEGHO'ME Solutions | France | 2020, 2019 |
| 2 Bis Café | France | 2017 |
| Conseils Et Realisations Informatiques | France | 2019 |
| Bistro Burger Montorgueil | France | 2017 |
| Groupe Finexcom | France | 2017 |
| RBR Sarl | France | 2017 |
| Oenotropie | France | 2017, 2018, 2019 |
| France Formations | France | 2017 |
| Innovaphot | France | 2017 |
| Pharmacie du Val-de-Loire | France | 2018 |
| Ellipse Affichage Aquitaine | France | 2017 |
| Hotels Eber | France | 2017 |
| Hotel Diana | France | 2017 |
| DINES | France | 2018 |
| QUATR'AS | France | 2018 |
| Pharmacie Vrain Perrin | France | 2017 |
| BNY FORM 2 Sarl | France | 2017 |
| Cabinet Gicquel et Amzallag | France | 2018 |
| Glocal diffusion | France | 2018, 2019 |
| Planete Fitness | France | 2017, 2019 (2) |
| Couleur sud Sas | France | 2017, 2018, 2019 |

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| Rezultat Consulting | France | 2018 |
| Excellium Consolidation Sarl | France | 2017 |
| Metaloc | France | 2017 (2) |
| Promocean | France | 2017, 2018, 2019, 2020 |
| Les Epicuriens | France | 2018, 2019 |
| BILGILI Sas | France | 2018 |
| Sarl Hbcd | France | 2017 |
| Serv Techn Profess De Marques | France | 2018 |
| Cevennes Cash | France | 2019 |
| Sas Mmf-Services | France | 2017 |
| Ellit Vision | France | 2017 |
| Revetements Superficiels Normands | France | 2018 |
| Hoome Financement | France | 2018 |
| Hadalili | France | 2017 |
| Hermes Technologies | France | 2018 |
| Twenty Peas | France | 2018 |
| Alufer | France | 2018 |
| Group Europ Fourniture Automobile | France | 2018 |
| Etablissements Duchemin | France | 2017 (2), 2020 |
| ACV | France | 2017 |
| Prod Finance | France | 2017 |
| AX2LAN | France | 2018 |
| Crédits & Conseils | France | 2017 |
| T2P | France | 2019 |
| ABP Beaumont | France | 2018 |
| Amibat | France | 2018 |
| ADRESS'IMMO | France | 2019 |
| A la boule de pain | France | 2018 (2) |
| AFCIA | France | 2017 |
| Trafficking solutions | France | 2018 |
| Spider | France | 2017 |
| Dulcor | France | 2017 |
| Arnau et fils | France | 2018, 2019 |
| Luxlab | France | 2017 |
| International mechanical supply | France | 2018, 2019 |
| Phuong Mai | France | 2018 |
| Bricklane Society | France | 2017 |
| S.MOTOS | France | 2018 |
| Au Pain D'antan | France | 2018 |
| CLM Finances | France | 2017 |
| ECR Bâtiments | France | 2018 |

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| WOK TAO | France | 2018 |
| CC LOC | France | 2018 |
| Viva Finance International | France | 2020 |
| Vogue La Galere Distribution | France | 2018 |
| Simatel Technologie | France | 2019 |
| CG Consulting | France | 2018 |
| Cap Marquet | France | 2018 |
| Dematrans Aquitaine | France | 2017 |
| Human Corporation | France | 2018 |
| Inter Design | France | 2018 |
| Sarl Ethik&Nature | France | 2018 |
| AFO | France | 2017 |
| Sigma Services Assurances | France | 2017 |
| Cryotech Refrigeration | France | 2019 |
| Avenir Reseaux | France | 2018 |
| Clean Pressing Flandre | France | 2019 |
| 2A-BK | France | 2018 |
| EASI | France | 2017 |
| Le Sydiam's hotel | France | 2019, 2020 |
| A2D Immobilier | France | 2019 |
| SARL Toulouse Financement Immobilier | France | 2018 |
| L'escalandes | France | 2018 |
| U3 | France | 2018 |
| France Confort Habitat | France | 2018 |
| La Maringoise | France | 2018 |
| Reves alpes snow valley | France | 2017, 2018 |
| LABO XV | France | 2019 |
| CAD'store | France | 2018, 2019 |
| LCE | France | 2018 |
| Emarketplace Sas | France | 2018, 2019 |
| CCG | France | 2019 |
| Dekacom | France | 2019 |
| Giraudier Bois Creation | France | 2019 |
| ISIFID | France | 2020 |
| SARL Atlantique Bretagne Informatique | France | 2017 |
| Le Clos des Amandiers | France | 2018 |
| Cabinet Letort | France | 2019 |
| Les filles d'ailleurs pret-a-porter | France | 2019, 2020 |
| Altys Conseil | France | 2018 |
| FMA Sas | France | 2018 |
| Immobiliere Du Grand Lyon | France | 2019 |

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| Mic Mac Pâtisserie | France | 2018 |
| La Pitchouli Sarl | France | 2020 |
| Carrosserie Du Centre | France | 2019 |
| D2H Réseau Quality Air | France | 2018 |
| ALPHEE | France | 2020 |
| Phones And Piles | France | 2019 |
| BCBJ | France | 2019 |
| YFC Finance | France | 2018 |
| Idees d'architectes | France | 2018, 2019 |
| E-MEDIA | France | 2019 |
| AIC Solutions | France | 2019 |
| Soja Conseils | France | 2019 |
| Le Pianiste Vannes | France | 2019 |
| Auffret Sarl | France | 2018 |
| SARL Atelier Isabelle Linski | France | 2018 |
| ELITE | France | 2017 |
| SARL Auto Phenix Industrie | France | 2019 |
| Assistance Finance Credit | France | 2018 |
| Selarl Rouve Longin | France | 2017 |
| TERA | France | 2020 |
| Groupe Immo 30 | France | 2018 |
| CoolDrive | France | 2018 |
| Action Immo 3 14 | France | 2018 |
| CJ Boutique | France | 2018 |
| SARL GECO | France | 2018 |
| Appstrategie | France | 2019 |
| Maison Couderc | France | 2019 |
| MLNG Optique | France | 2019 |
| Société Téléphonique Cévenole Provençale | France | 2018 |
| Menuiseries Tabuteau | France | 2017 |
| Aurum Finance | France | 2019 |
| Atelier Casanova | France | 2019 |
| Lavatech | France | 2019 |
| MX Evenement | France | 2019 |
| Domaine des Chênes | France | 2018 |
| Le Primeur Palavasien | France | 2018 |
| Poiret Immobilier | France | 2019 |
| Sertelcom Sarl | France | 2018 |
| Selarl Docteur Fauroux Laurent Et Associes | France | 2018 |
| Padaf | France | 2019 |
| Alpha Camping Holding France | France | 2019 |

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| City Signa | France | 2018 |
| Know Your People Sas | France | 2018 |
| Cheraki Location | France | 2020 |
| Rebatet | France | 2018 |
| HN Optique | France | 2018 |
| Entreprise Lazzarotto Novateur | France | 2018 |
| Le Lion d'Or | France | 2018 |
| FL140 Parachutisme Bordeaux | France | 2018 |
| ACSD | France | 2017 |
| MT 15 | France | 2019 |
| Lazzarella | France | 2018 |
| Miginvest | France | 2018 |
| 3 C SUD | France | 2018 |
| EGP-CAPITAL | France | 2018 |
| Nastenika | France | 2020 |
| Roux Lenaic Construction | France | 2019 |
| Au Tableau Sarl | France | 2019 |
| Kangourou Kids Sas | France | 2019 |
| ALX Ingenierie | France | 2018 |
| IG Electricite | France | 2018 |
| Le Fournil De Benjamin | France | 2020 |
| Experiencia | France | 2020 |
| LB Conseils Renovations | France | 2019 |
| Phicogis Communication | France | 2019 |
| Edigest Audit | France | 2019 |
| Sepavat Sas | France | 2019 |
| ASITY | France | 2018 |
| SARL Perron | France | 2018 |
| NDG | France | 2019 |
| Global Project Electricité | France | 2018 |
| SOFTEE | France | 2019 |
| La Bonne Piece | France | 2020 |
| Selarl Pharmacie Pasteur | France | 2019 |
| SARL PMA | France | 2018 |

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