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THE ITALIAN CORPORATE BOND MARKET: WHAT IS HAPPENING TO THE CAPITAL STRUCTURE OF ITALIAN NON-FINANCIAL COMPANIES?

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In collaborazione con

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PREFACE

Andrea Vismara
EQUITA GROUP

It is a great pleasure for Equita to celebrate the completion of the second three-year period of our partnership with the Bocconi University, aimed at analysing and promoting Italian capital markets.

This project started in 2012, at a time when the public debate on finance was almost exclusively focused on our distressed banking system and the sustainability of our public debt, while little attention was devoted to the Italian capital markets, although they are historically less developed than those in other financially advanced countries.

When we started tackling this topic with Bocconi, we were concerned about the fact that no structured and consistent effort had ever been taken in Italy to analyse and promote the capital markets: as a matter of fact, they represent an essential asset for the country development.

Since then, thanks to the high-quality academic contribution of Centro Baffi Carefin, we have analysed the ongoing condition of the capital markets, focusing from time to time on intermediaries, investors, companies and their reasons to go public. Moreover, we have carried out a thorough comparison with more developed models, such as the UK one, and analysed the performance reported by the securities issued by Italian companies over the last decade. This analysis has always been flanked by our recommendations for regulatory improvements and system-wide initiatives.

Over time, encouraging improvements have emerged but there are still elements that represent a serious issue hampering the development of the country.

Among the positive findings, it is undoubtedly included the fact that the financial crisis has finally put an end to the almost monopolistic primacy of the banking system as a source of corporate financing. As the Bank of Italy has often pointed out, this is an anomaly of our country: we believe that over time the monopoly of the banking system has led a financial weakness in our enterprises as well as excessive conflicts of interest displayed by the banks, an issue that has not been satisfactorily tackled yet. Therefore, the fact that companies are increasingly turning to capital markets to raise capital must be truly welcomed.

Furthermore, over the last few years regulatory changes and tax benefits have been introduced in order to support the development of the capital markets. Some of these changes were also the result of the work ensuing from our partnership with Bocconi; achievement that we are proud of.

Among the negative findings, we must regrettably include: the little progress made in regulatory simplification - in spite of the European concern in this regard and in particular for small and medium enterprises; the lack of initiative by our institutions to defend our markets from harmful regulations such as the research unbundling envisaged by Mifid 2; the general lack of attention for industries representing the core of the capital markets - thus requiring a structured action plan - namely asset management and equity and bond intermediation.

This year's research work tackles a key topic in this scenario, namely the access to bond markets by Italian companies. The main finding here is that although companies increasingly rely on capital markets, this option seems to be basically limited to large-sized companies with high existing debt levels. The bond market for smaller companies is still much less developed than it should ideally be. In our view, the main reason is that no sufficient effort has been made to develop the most important element for the expansion of this market: specialised investors.

These findings prompt us to single out some necessary initiatives to promote the positive development of capital markets for companies:

- *first and foremost, as we keep repeating every year, regulation must be improved: just to give a basic example, a reasonable regulation cannot require a company to publish a prospectus of over 600 pages just to move from one segment of the stock exchange to the other, from AIM to MTA;*

- *moreover, urgent measures must be taken to remedy the damage caused by Mifid 2 to equity intermediation and research. In this regard, we note that the FCA, i.e. the British regulator, has started a public, structured analysis precisely on this issue, despite being the promoter of this regulation. On the other hand our institutions have done next to nothing, although a year has passed since its debut and substantial evidence has emerged of the market distortion brought about by the said legislation;*

- *effective measures must be taken to remove the conflicts of interest of financing banks when they deal with corporate clients - as it has been the case in the UK - so that independent operators assisting SMEs can properly thrive. For example, the regulation concerning the sponsor in Italian listings still does not ensure the independence of players required to fulfil this important task to protect the market; moreover, no regulatory limit exists as to what the banks can contractually require from companies seeking their financial support in terms of investment banking services, regardless of their actual skills and expertise and with potential distortion of competition;*

- *moreover, it is fundamental to revise the recent amendments to the PIR regulation. We appreciate the Government's focus on SMEs financing and venture capital; however, the right way ahead is not to modify tools - such as PIRs - devised to guarantee investors liquid positions and to channel Italian savings towards Italian companies in general. SMEs financing must be promoted by favouring ad hoc investors, as it has been the case in UK and France for years. In this regard, we believe that the best tools to be promoted are the ELTIFs, the funds developed by the European Commission and devoted to SMEs and other asset classes that would otherwise struggle to raise capital with traditional instruments;*

- *finally, linking back to the topic our research focused on, investors in SMEs debt should also be entitled to tax benefits: for example, the definition of investments entitled to tax exemption for pension funds should be widened to include also private debt funds in addition to those focusing on equity and venture capital.*

Equita, established as Euromobiliare in 1973, has always been a strong and innovative player in financial markets, also contributing to their development. Therefore, it is a great pleasure and honour for our institution to conclude the second term of our cooperation with the Bocconi University; we will be delighted to renew it for the coming years in the hope of contributing to the development of capital markets by identifying and promoting useful initiatives for our country.

CONTRIBUTING AUTHORS[1]

Stefano Caselli is Vice Rector for International Affairs and a Professor of Banking and Finance in the Department of Finance at Bocconi University. He is a member of the Board of Directors of the SDA Bocconi School of Management, where he served as the Director of Executive Education Custom Program for Banks and Financial Institutions from 2006 to 2012. He conducts research on domestic and international levels, and has developed several publications on private equity, SME and family business financing, corporate finance, banking strategy, and corporate governance. He is a member of the scientific committees of CER (Centro Europa Ricerche in Rome), ECMI (European Capital Market Institute in Brussels), and EVCA (European Private Equity and Venture Capital Association for PEREP Group in Brussels). Professor Caselli is currently serving as an independent director on the boards of several companies and financial institutions, including SIAS S.p.A., Generali Real Estate SGR, and Santander Consumer Bank. Moreover, he supports numerous companies and institutions as a strategic consultant. He acts as a columnist and opinion maker for several newspapers, and on radio and television programs. Among the most prominent are Corriere Economia, TG1 Economia, Rai Radio 1, and Class CNBC. He graduated with a degree in Business Administration from the University of Genoa in 1993 and he holds a PhD in Financial Markets from the University of Siena.

Stefano Gatti is the Antin Infrastructure Partners Professor of Infrastructure Finance in the Department of Finance at Bocconi University. He has served as Director of the Full-time MBA program at the SDA Bocconi School of Management. His main areas of research are corporate finance and investment banking. His papers have been published in the *Journal of Money, Credit and Banking*, *Financial Management*, the *Journal of Applied Corporate Finance*, and the *European Journal of Operational Research*. Professor Gatti has published a variety of texts on banking and finance, and he has acted as a consultant to several financial and non-financial institutions, as well as for the Italian Ministry of the Economy, the Financial Stability Board, the InterAmerican Development Bank, and the OECD/G20. He is a financial advisor to the Pension Fund of Health Care Professions, a member of Deutsche Bank's Committee for Compliance Risk, and a member of the Board of Directors and Board of Auditors of several Italian industrial and financial companies.

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Gimede Gigante is a Lecturer at the Department of Finance at Bocconi University where he is also Assistant Director of the Bachelor Degree Programme in "Economia e Finanza" (CLEF). He earned a business degree from Bocconi University and a PhD in Banking & Finance from University of Rome. He holds the ITP qualification (International Teachers' Program) from SDA Bocconi. He has held visiting positions at the Finance Department of Columbia Business School, and at the Salomon Brothers Center (Stern School of Business, NYU). He is a chartered accountant and a professional auditor. He has published a variety of papers on banking areas and acts as a consultant to several financial and non-financial institutions. His main area of research is corporate finance, investment banking and private equity. Winner of the Award for Excellence in Teaching in 2015 and in 2016.

[1] The authors would like to thank Luca Pennarola for his support as research assistant.

CONTENTS

1 INTRODUCTION

Following the onset of the financial crisis in 2008 and the subsequent sovereign debt crisis, the landscape of corporate funding in Italy has undergone substantial changes. Capital markets have become an increasingly important source of funding for Italian companies, who have realized the importance of developing alternative financing options and the danger of relying excessively on bank lending.

The transition from bank funding to disintermediated, market-based alternatives is driven by different concurring factors. On one hand, the experience of the financial crisis gave banks and their regulators a better understanding of the risks posed by excessive leverage, while the ensuing recession increasingly weighed on their balance sheets with the souring of non-performing loans (NPLs). This led to some retrenchment by banks, as their efforts were primarily directed to deleveraging while cleansing their balance sheets, rather than supporting economic growth through the provision of credit. As a result, companies had to contend with the reduced supply of credit through the traditional banking channel, and face the stark reality of the risks of relying on only one funding source. To diversify funding strategies, demand for non-bank finance intensified. Indeed, companies have started to progressively substitute bank loans with corporate bonds, with investors stepping in to fill the corporate funding gap resulting from the contraction in bank lending.

On the other hand, the disintermediation of corporate funding is favored by the monetary policy adopted by central banks, which has contributed to a decline in long term bond yields, prompting investors to head for the riskier ends of the corporate bond market. As a result, with yield-starved investors looking more favorably on relatively more risky assets, bond markets became available for a larger number of companies. Nonetheless, the diversification of corporate funding has been accompanied by structural change flowing from, for example, technological innovation that facilitates new forms of intermediation such as peer-to-peer lending.

This development is extremely welcome, especially within the Italian economic environment, which displayed financial weaknesses during the crisis due to its historical and almost exclusive reliance on conventional bank credit. However, the transition of Italian companies to a more balanced funding structure is far from complete. The post-crisis fallback of bank lending was only partially offset by an increase in bond financing. On the one hand, the domestic debt capital market was mostly confined to companies with the highest credit rating and therefore inadequately developed to completely fill the corporate funding gap resulting from the credit crunch. On the other, access to more developed foreign markets, dominated by foreign investors, was mainly restricted to Italian companies with sufficient critical mass or enough international recognition to attract investor interest. This meant that the majority of medium-sized and small companies, which play a vital role in the Italian economy, were left out of this form of financing. Excessive bank dependence has therefore represented in the post-crisis period an obstacle to the growth of Italian firms and a drag on the economy.

Nonetheless, thanks to recent fiscal and legislative efforts (i.e. the Destination Italy Decree in 2013), debt capital markets in Italy seem to be finally taking on an increasingly central role among the corporate funding preferences of Italian firms. In light of this, our paper investigates the characteristics of the corporate bond market for Italian non-financial companies. More specifically, we study what drives the choice of issuing a bond for the first time and the determinants of the pricing of that bond at launch. Our goal is to identify the main differences between issuers and non-issuers and among various issue types in order to shed light on what factors may foster or hinder the ongoing corporate funding disintermediation process.

The rest of this paper is organized as follows. In Section 2 we discuss the corporate funding preferences by Italian non-financial companies (NFCs), describing the main characteristics of the corporate bond market in Italy and providing evidence of the recent trend towards the disintermediation and diversification of the sources of debt funding. Then, in Section 3 we present our empirical analysis on the decision to issue a bond for the first time and the determinants of at-launch pricing. In Section 4, we provide our concluding remarks and we discuss policy implications.

2 THE DEBT MARKET FOR ITALIAN NON-FINANCIAL COMPANIES: IS DISINTERMEDIATION TAKING OFF?

In this section, we describe how corporate funding in Italy has changed since the outbreak of the financial crisis in 2008. We start with an international comparison of the funding preferences of non-financial companies across major European economies. In particular, we look at the evolution of their financial leverage over the last 10 years and how the relative contributions of alternative sources of debt have changed. Then, we describe how credit supply by banks has shrunk over the same period, due to increasing tensions across their balance sheets. This allows us to link the current corporate funding landscape to recent trends in loans and bond funding, by comparing the cumulative net flows of funding raised since 2009 by non-financial companies from bank debt and bond markets, respectively. Finally, we discuss the status quo of the Italian corporate bond market, characterizing the types of issuers and investors that have contributed to its development in the last few years.

2.1 The capital structure of non-financial companies

Debt funding is crucial for Italian companies. *Figure 1* shows that non-financial companies' debt outstanding at the end of 2017 amounted to over 108% of the country's GDP, below the average level of all euro area economies (136%). Debt funding peaked in 2011 at 125% of GDP, from 114% in 2007, and declined then onwards, departing from the upward trend at the euro area aggregate level. This is quite remarkable when considering that the rate of growth of GDP was modest in Italy compared to other euro area economies over the same period. The decline in the debt of non-financial companies in this country seems therefore most likely attributable to a falling demand rather than to any effort to deleverage. Consistently, in the same period, the investment rate of Italian non-financial firms (i.e., their gross fixed capital formation over their gross value added) ranged between 19.6% and 21.2%, well below the average of the euro area, which ran between 21.9% and 23.1%. Moreover, *Figure 1* shows that the level of leverage of non-financial companies in Italy at the end of 2017 was 48.2%, the highest among the major European economies and above the average for the euro area. This has been the case since before the financial crisis, with a peak of 58.9% in 2011.

At the onset of the financial crisis, not only were Italian non-financial companies relatively more leveraged, they were also amongst the most dependent on bank debt. *Figure 2* compares the contribution of market sources of funding to the overall financial debt of non-financial companies across major euro area economies in 2007 and 2017. Debt securities accounted for less than 6% of non-financial companies' debt in Italy in 2007, while they represented on average almost twice as much across the euro area. Only in Spain

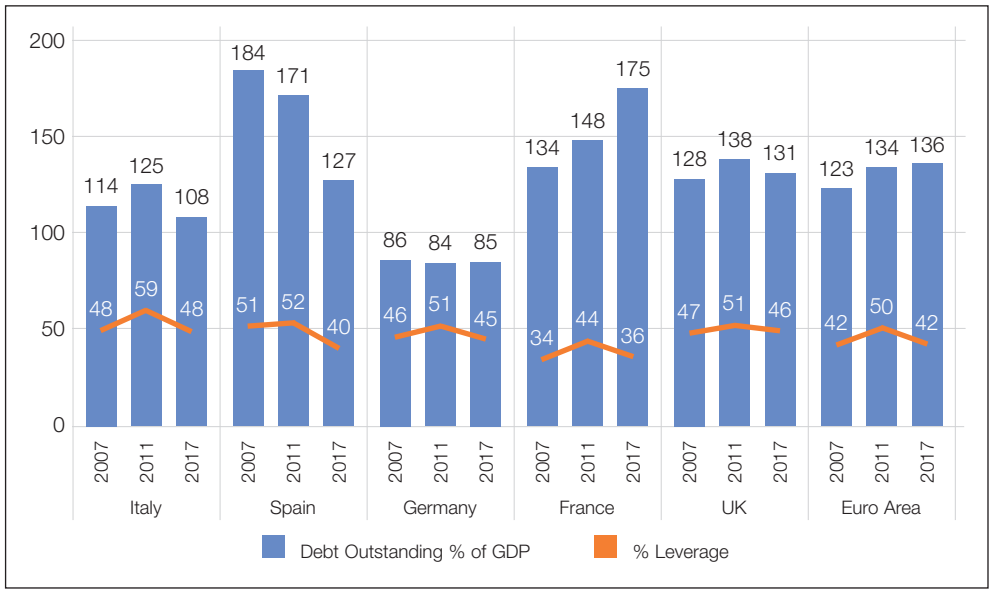


FIGURE 1
Non-financial companies debt outstanding (to GDP) and leverage, 2007-2017, Italy vs. euro area, Spain, France, Germany and UK

Source: ECB

bank dependence was even more severe, while in Germany and France the contribution of market debt to non-financial firms funding was 9.5% and 19.2% respectively. Since then, non-financial companies across the entire euro area have been increasingly diversifying their sources of debt funding. Yet, the pace of substituting bank loans with debt securities has been particularly strong in Italy. Indeed, at the end of 2017, market debt made up approximately 13.4% of non-financial companies' debt funding, in line with other major euro area economies, such as Germany (13.6%), and narrowing the gap with the euro area average (15.9%).

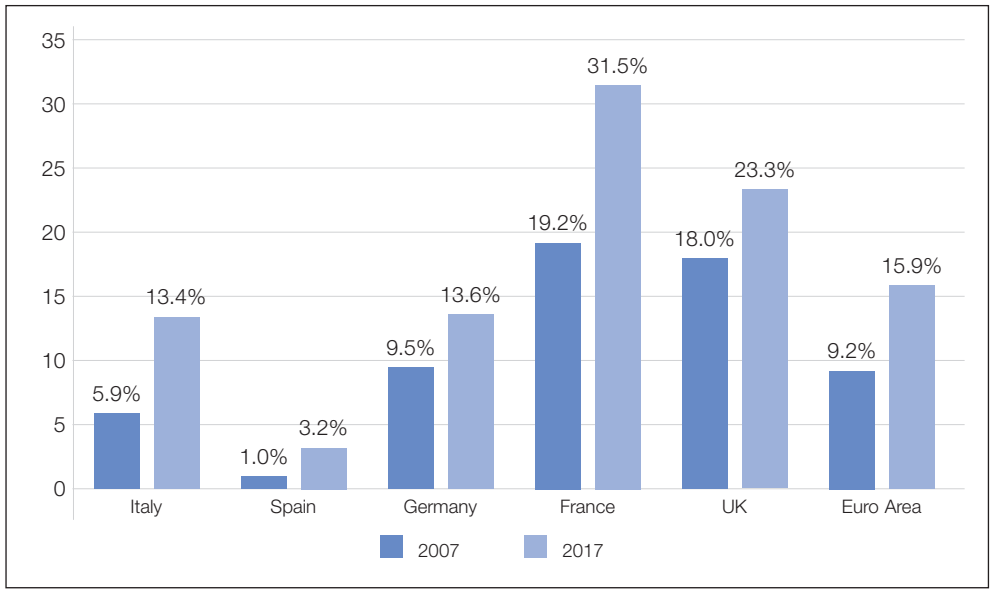


FIGURE 2
Share of debt securities over total debt, 2008 and 2017, Italy vs. euro area, Spain, France, Germany and UK

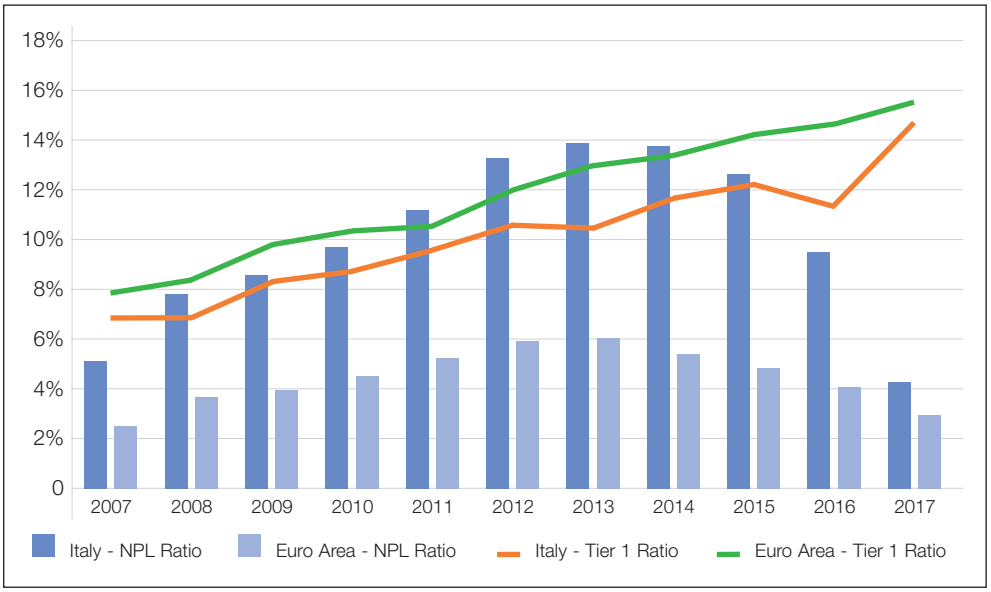
Source: Eurostat

2.2 Trends in loans and bond funding

Between 2007 and 2017 the share of debt securities over total debt grew at an 8.5% CAGR, compared to the aggregate 5.6% CAGR for the euro area. The retreat by banks from lending is their response to higher capital requirements and the growing weight of NPLs on their balance sheets. *Figure 3* shows that the tensions on banks' balance sheets in the post-crisis period were more severe in Italy than elsewhere. NPLs reached a peak close to 14% of gross loans in 2013, in the wake of the recession that followed the financial crisis in 2011 and 2012. Only in 2017 the ratio of NPLs dipped back below its pre-crisis standard. In the same period NPLs increased in other euro area economies as well, yet not as much as in Italy. The highest NPL rate at the euro area level was recorded in 2013, when non-performing loans reached 6%, less than half of the corresponding figure in Italy.

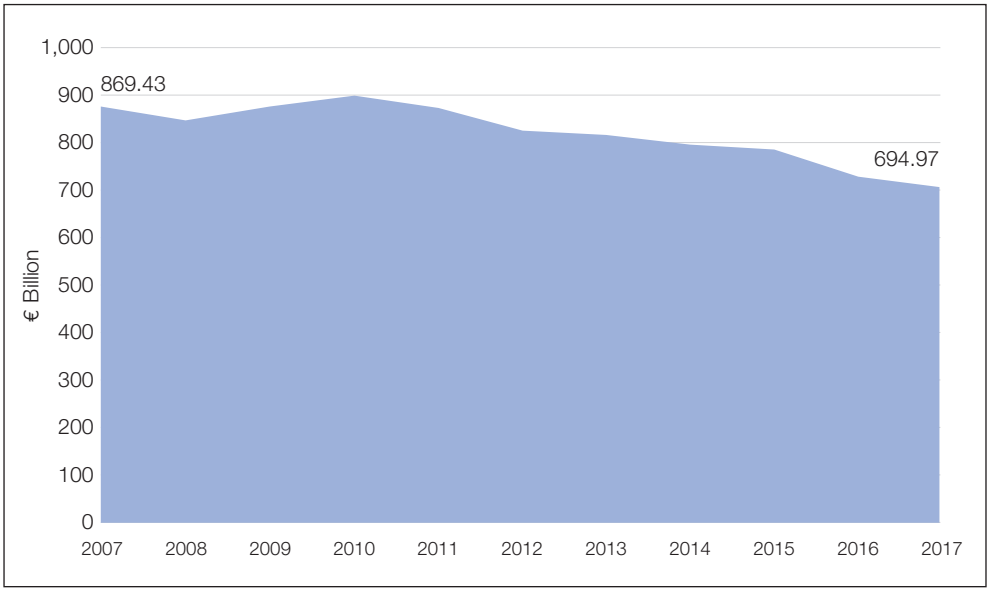
The stress on the asset side of banks' balance sheets due to NPLs was accompanied, on the liability side, with their efforts to deleverage in order to restore their ability to absorb losses and comply with more stringent capital requirements. Indeed, *Figure 3* shows that at the onset of the financial crisis the loss-absorbing capacity of euro area banks was very limited, and that of Italian banks even more so. Tier 1 capital, that with the most loss-absorbing capacity, was just 7.9% of risk-weighted assets for euro area banks, and 6.9% for Italian banks. Since then, banks have increasingly shored up capital. Cumulative net issues of shares by euro area listed banks between 2007 and 2017 amounted to over €317 billion (ECB), of which almost €65 billion, approximately one-fifth of the total, by Italian banks. Consistently, Tier 1 ratios continuously increased during the period, up to 15.6% for euro area banks and 14.7% for Italian banks.

FIGURE 3
Non-performing loan ratio and Tier 1 ratio, 2007-2017, Italy vs euro area



Source: ECB

While they contributed considerably to restoring the loss-absorbing capacity of banks, new capital injections alone cannot fully explain the growth in banks' capitalization. The deleveraging of banks between 2007 and 2017 was also the result of stricter credit policies and a contraction in lending. Indeed, *Figure 4* shows that banks in Italy reduced their domestic credit to non-financial companies by almost €175 billion, or 2.2% annually.

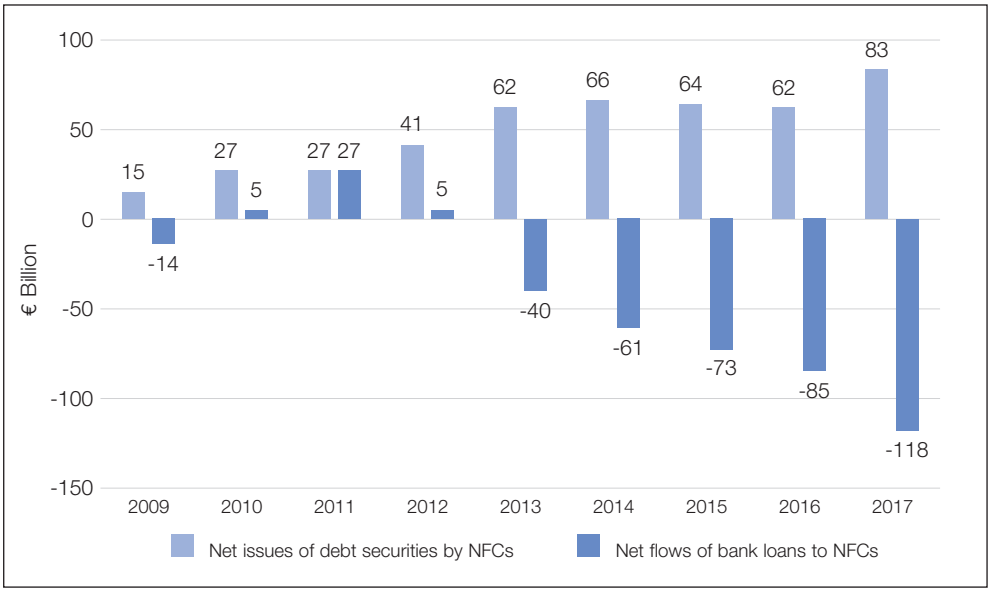


Source: ECB

FIGURE 4
Bank credit to domestic non-financial companies, 2007-2017, Italy

Faced with a reduced credit supply, Italian non-financial firms have increasingly substituted bank debt with market debt. *Figure 5* compares the cumulative net flow of bank loans to non-financial companies between 2009 and 2017 with their net issues of debt securities over the same period. Overall, while bank debt shrunk by €118 billion, debt securities issues increased by €83 billion. Such trends in bank loans and bond funding reflect an increased corporate understanding of the importance of developing alternative financing options and the danger of relying excessively on bank lending. Indeed, the transition from bank funding to disintermediated, market-based alternatives represents an extremely welcome development in the corporate funding for Italian companies, which displayed financial weaknesses during the crisis due to their historical and anomalously almost exclusive reliance on conventional bank credit.

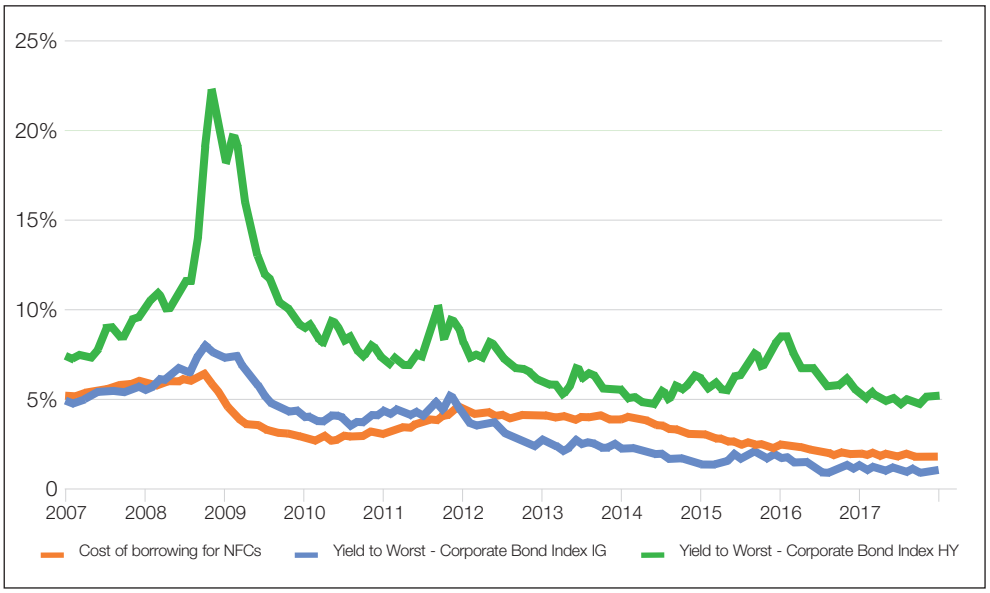
FIGURE 5
Cumulative net flows to non-financial companies, loans vs. debt securities, 2009-2017, Italy



Source: ECB

This trend was favored by the very advantageous conditions by which firms could access corporate debt markets. This is clearly visible in *Figure 6*, which compares the cost of borrowing for Italian non-financial companies with the yield on euro area investment grade and high yield corporate bonds. Because of an extraordinarily loose monetary policy, yields on corporate bonds dropped to historic lows. Then, the appetite for risk of yield-starved investors probably contributed to the compression of the spread between high yield and investment grade issues, making market debt funding more viable and more attractive to a broader range of potential issuers.

FIGURE 6
Cost of debt for non-financial companies, bank loans vs. corporate bonds, 2007-2017, Italy



Source: ECB and Bloomberg. Cost of borrowing for NFCs refers to domestic credit in Italy. Corporate bonds yields are proxied by the Bloomberg Barclays Pan European Aggregate Corporate Total Return Index and the Bloomberg Barclays Pan-European High Yield Total Return Index, respectively.

2.3 The overall characteristics of the Italian corporate bond market.

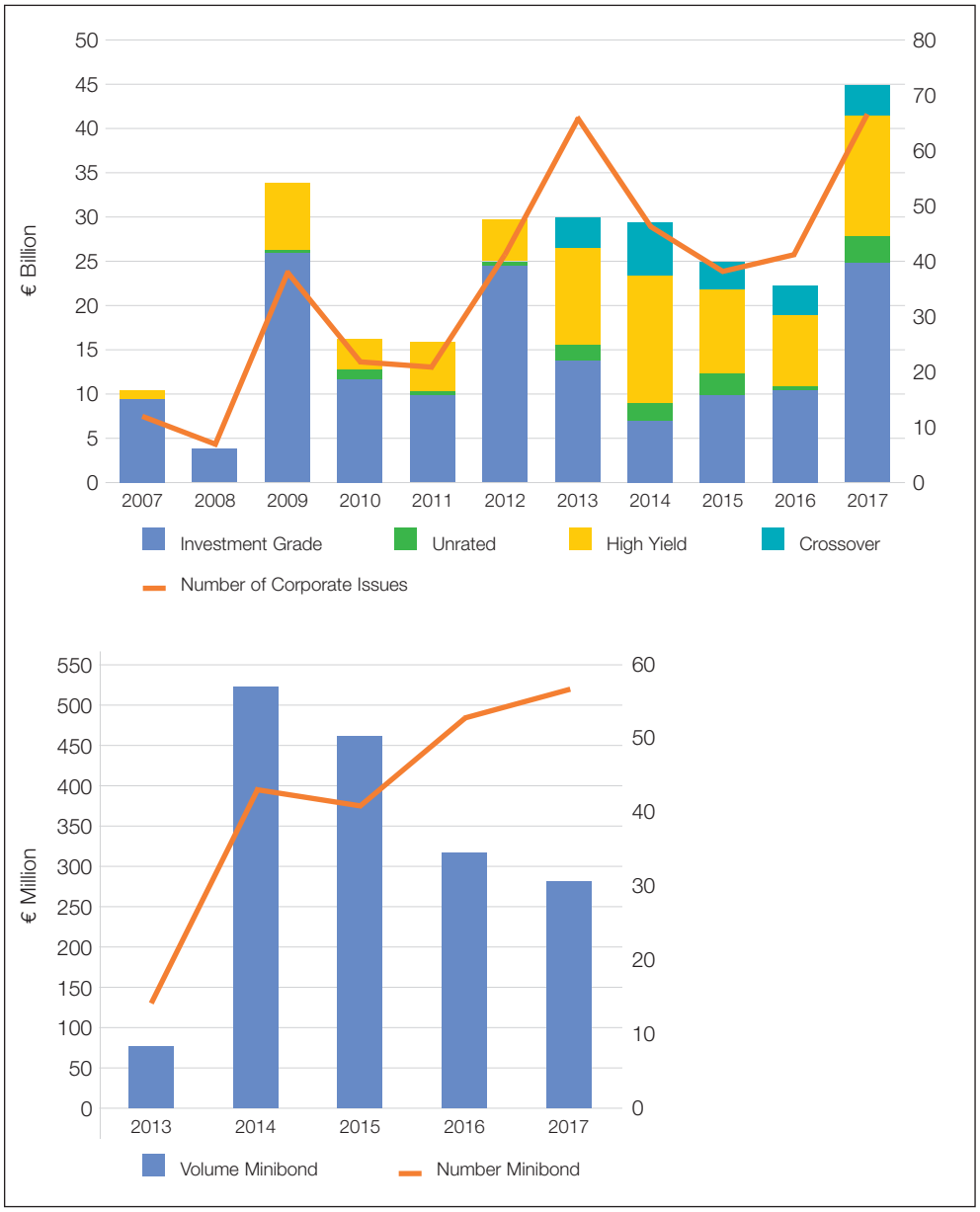
The need of non-financial firms to fill their funding gap by means of disintermediated, non-bank sources of debt has spurred the development of the corporate bond market in Italy.

Historically, the Italian corporate bond market was largely dominated by banks and financial companies. Of the €826.2 billion (48% of GDP) stock of corporate debt securities outstanding at the end of 2017, only €143.8 billion (8% of GDP) was attributed to non-financial companies (Source: Bank of Italy, 2018). Yet, their offerings are on the rise. While the net flows of debt securities by banks and financial companies were negative in 2017, for non-financial companies they rose by €21.3 billion (Source: Bank of Italy, 2018). Remarkably, gross issues on international markets reached approximately €42 billion, almost double the €22 billion figure for 2016 (Source: Dealogic).

Figure 7 shows corporate bond and minibond offerings by Italian non-financial companies in the period between 2007 and 2017,comprising 401 corporate bonds and 208 minibonds, and corresponding to over €260.8 and €1.7 billion respectively. In particular, consistent with disintermediation finally taking off, the growth of corporate bond offerings was more than fourfold over the entire period, reaching an annual issue volume of almost €45 billion over 67 offerings in 2017, from just over €10.5 billion over 12 offerings in 2007. Unrated and high yield bond issues contributed considerably to this growth. Indeed, while investment grade issues represented slightly more than 90% of all the offerings in 2007, their contribution dropped to 52% of the offerings and 55% of their value by 2017. Overall, non-investment grade bond issues account for 49% of the number of offerings between 2007 and 2017, and for 42% of their aggregate value.

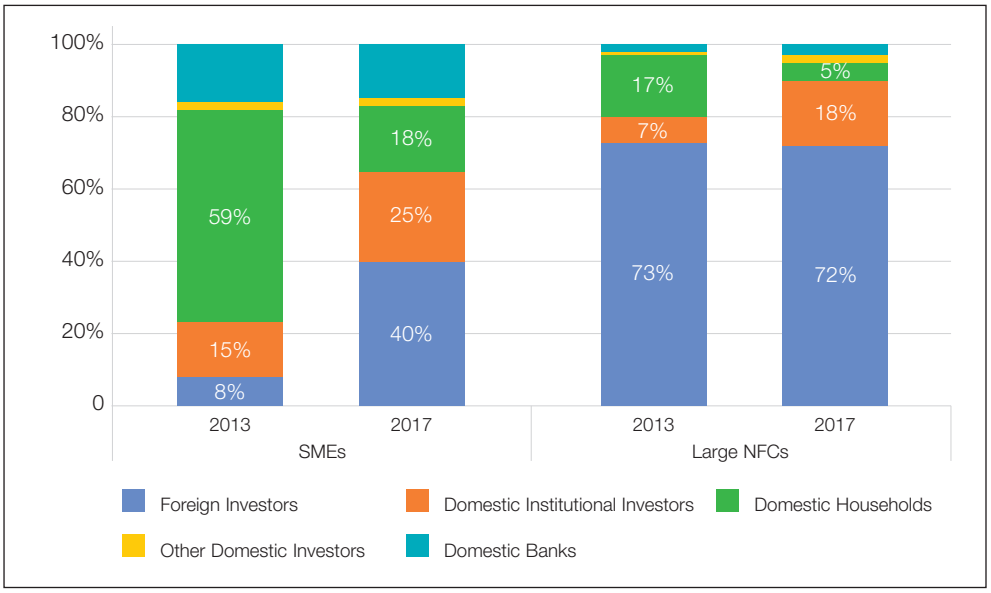
Disintermediation gained ground also among small and medium enterprises. Indeed, since their introduction in 2013, minibonds have provided access to debt capital markets to a considerable number of SMEs. The number of issues grew year after year, reaching a record of 57 new offerings in 2017. Moreover, as the market matured the average offering size shrunk. Indeed, despite the rising number of issues each year, the aggregate value declined ever since 2014, after peaking at €521 million.

FIGURE 7
Corporate bond offerings and minibonds by Italian non-financial issuers, 2007-2017, number (rhs) and value (lhs)



Source: Equita SIM S.p.a. Italian Capital Markets Monitor.

However, weighing down on the ability of disintermediation to reach its optimal cruising altitude is the structural lack of a strong domestic investor base. Indeed, a recent study by Acconero et al. (2018), conducted on a sample of 500 debt offerings, shows that foreign investors are the largest purchasers of debt securities issued by Italian non-financial firms (*Figure 8*). Domestic institutional investors and domestic banks take on a minor role compared to the standards of other euro area economies. This means that a large share of of medium-sized and small companies, which play a vital role in the Italian economy, are left out of this form of financing due to the structural lack of a strong domestically focused investor base. In Italy, debt securities issued by non-financial companies end up crowded out by the huge volumes of bank and public debt offerings.



Source: Bank of Italy, Acconero et al. (2018).

FIGURE 8
Breakdown of investors in debt securities issued by Italian non-financial companies by nationality and type, 2013 vs. 2017

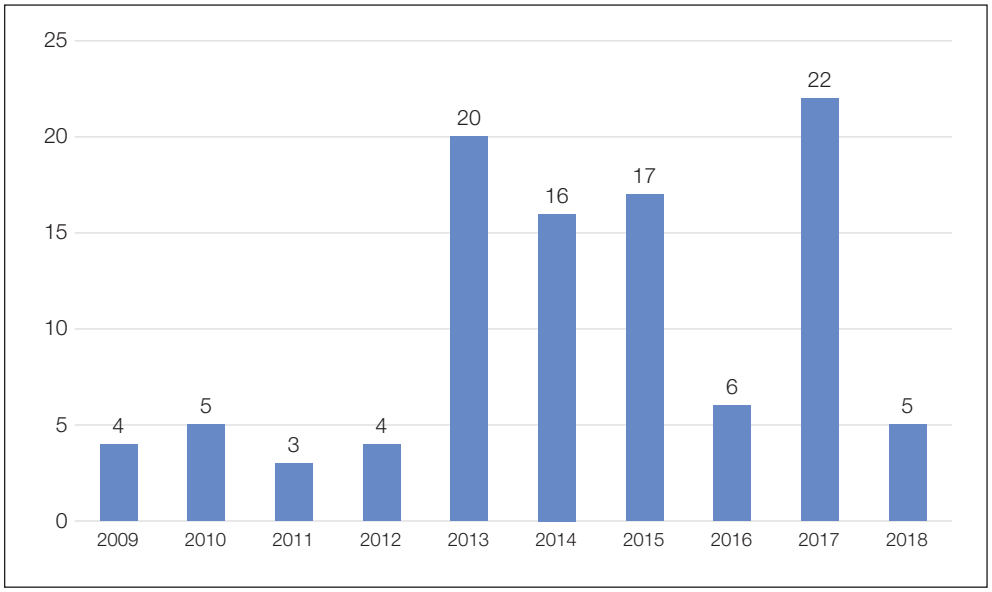
Among other euro area non-financial companies, private placement is growing as an alternative source of market debt, especially in the more developed German SSD market and the French EuroPP market. Between 2012 and 2017, debt securities placed on these markets amounted to €105.6 billion and €21.5 billion respectively. In particular, for the German SSD market, 2017 represented a record year with volumes exceeding €26.7 billion, a more than twofold increase since 2012. Yet, for Italian non-financial companies, the option to privately place debt securities abroad remains largely unexplored. Between 2011 and 2016, only 3 out of the 498 issues on the German SSD market and 21 out of the 253 issues on the French EuroPP were by Italian issuers (Source: European Commission, 2018).

3 THE DETERMINANTS AND THE COST OF BOND ISSUES FOR ITALIAN NON-FINANCIAL COMPANIES

This section is dedicated to the empirical analysis of access to the corporate bond market by Italian firms. More specifically, here we study what drives the choice of issuing a bond for the first time (inaugural offering) and the determinants of the pricing of that bond at launch. Our goal is to shed light on the factors that foster or hinder corporate funding disintermediation by identifying the main differences between issuers and non-issuers, as well as among various issue types.

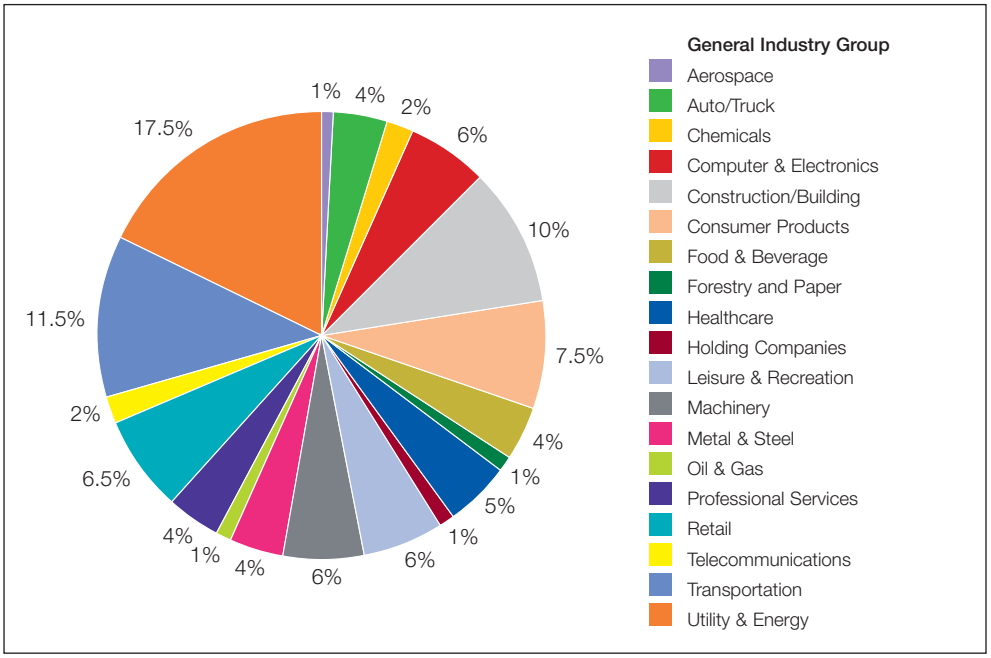
To this end, we collect data from Dealogic DCM Manager on corporate bonds offerings by Italian listed and non-listed firms in domestic and international markets. We focus our analysis on first-time (inaugural) issuers only, as this should allow us to better identify their characteristics. Consistent with other studies that adopted the same approach, such as Datta et al. (2000), Hale and Santos (2008) and Acconero et al. (2015), we define inaugural issues as all those offerings by companies that had not issued any bond in the previous 10 years. We include in our sample only bonds announced from 2009 onwards, as we do not have data on company financials before 2008. We exclude banks and financial services companies, because their funding needs differ from those of non-financial companies, so they may access market funding on alternative grounds. Our final sample consists of 102 inaugural bond offerings. Among these, 12.5% have multiple tranches, bringing the total of different tranches in our sample to 124. We conduct our analysis of the choice of accessing the bond market for the first time at the issue level, while to study the determinants of pricing we move to the tranche level. *Figure 9* shows the distribution of the inaugural issues over the sample period. Consistent with increasing disintermediation and the low yields following QE, which facilitated access to debt capital markets for a broader range of firms, inaugural issues are concentrated in the post-2012 period.

FIGURE 9
Inaugural issues by Italian non-financial companies, 2009-2018 (June)



Source: Dealogic

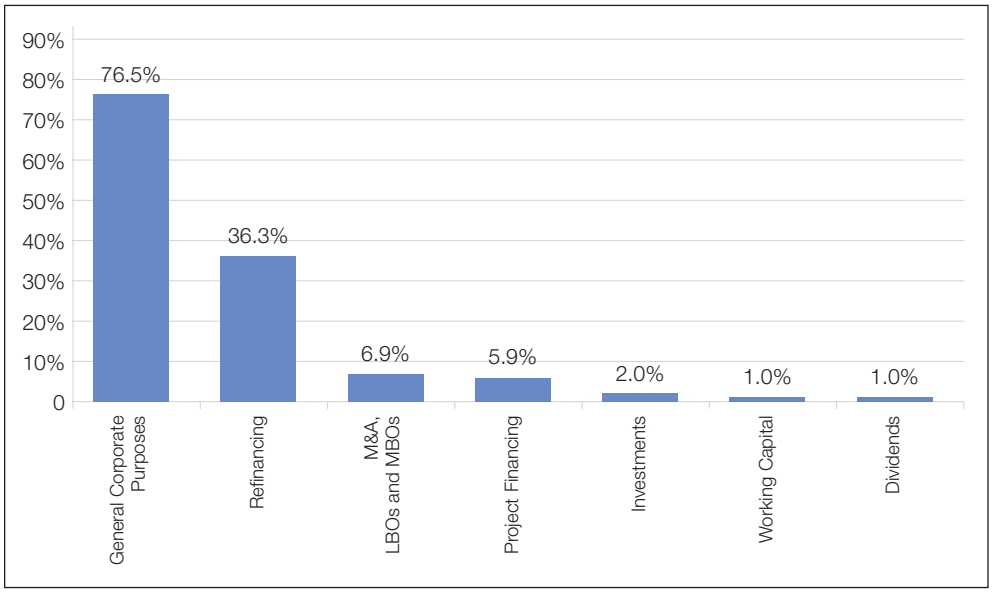
Our sample can be considered fairly representative of the entire universe of Italian non-financial companies, as it encompasses issuers from 20 different industry groups. *Figure 10* provides a detailed description of the sectorial breakdown of these issuers. Companies belonging to the sectors of Utility & Energy, Transportation, or Telecommunications account for approximately one-third of all the issuers.



Source: Dealogic

FIGURE 10
Inaugural issues by Italian non-financial companies - breakdown by sector, 2009-2018 (June)

Our sample displays a good level of heterogeneity also in terms of the financing needs that issuers try to meet by accessing the debt market. *Figure 11* shows the reported use of proceeds for the offerings in question. Among the more specific purposes cited by the issuers, debt refinancing seems to play an important role, consistent with bank-credit constrained non-financial companies increasingly substituting bank debt with market funding.

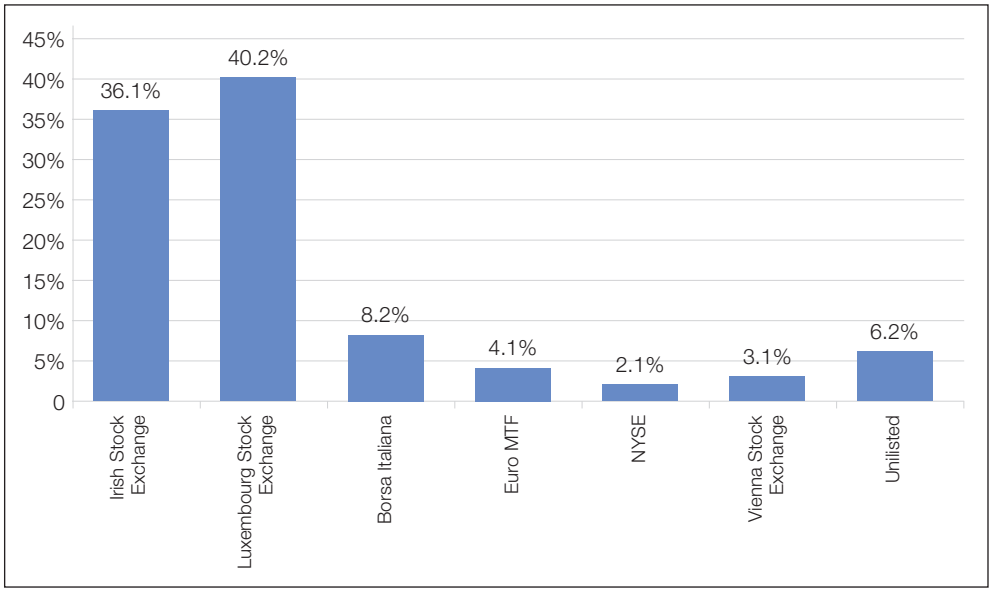


Source: Dealogic

FIGURE 11
Inaugural issues by Italian non-financial ompanies - reported use of proceeds (non-exclusive categories)

With regard to issue characteristics, almost two-thirds (62%) of the offerings in our sample are investment grade rated, while 38% are high yield. Despite the fact that none of them is directed to retail investors, 58.9% are offered as public issues and 41.1% as private placements. Only 10.5% are addressed to the domestic market, while 79% target euro area markets. *Figure 12* shows relative markets of listing. Luxembourg and Ireland are favorite destinations, though most issues have multiple listings. The issues in our sample are predominantly denominated in euros (88.7%); only 11.3% are in US dollars. Approximately half are registered (52.4%),[2] while the majority of the issues are registered fixed rate (90.32%), senior (98.2%), unsecured (67.5%) and callable (60.8%).

FIGURE 12
Inaugural issues by Italian non-financial companies - markets (non-exclusive) of listing



Source: Dealogic

To further corroborate the representativeness of the sample, *Table 1* provides summary statistics in terms of issue characteristics. The size of the issues in our sample ranges from a minimum of €5 million up to approximately €1.6 billion, while the average issue size is €329 million (and median of €215 million). Each issue typically involves 3 or more banks, with gross fees ranging from 0.2% to 2% of the deal value. Only one tranche per issue is generally offered, but in a few cases multiple tranches are issued, with a maximum of five. Maturities ranges from as short as 4 years to almost 30. The average number of years to maturity is approximately 7.5. Coupon rates, spreads and yields vary considerably within the sample, which suggests a certain degree of heterogeneity among issues with respect to credit risk. This implies that more and more companies regardless of their creditworthiness are able to access the debt capital markets. Moreover, the decline of coupon rates, spreads and yields over time reflects the effect of expansionary monetary policies and quantitative easing on the cost of accessing debt capital markets. Also the time to complete the issue varies considerably within the sample. However, rather than depending solely on the characteristics of the offering, the time that elapses between the filing and the settlement of the issue depends on the venue where it is listed. In this respect we find that in general issues are more expedited where regulation is less demanding and exchanges are more efficient, such as in Luxembourg or Ireland.

[2] By being registered we mean that a bond owner is registered with the bond's issuer, contrary to a bearer bond for which no records are kept of the owner, or the transactions involving ownership.

TABLE 1
Inaugural issues by Italian non-financial companies - descriptive statistics, all tranches

Variable	Obs.	Mean	St. Dev.	Min	Med	Max
Issue-level variables						
No. of banks	102	3.61	2.70	1	3	11
No of bookrunners	102	3.34	2.58	1	3	12
No. of tranches	102	1.22	0.58	1	1	5
Deal value (M,€)	102	329	362	5	215	1,570
Gross fee (M,€)	102	2.43	2.96	-	1.26	15.70
% of Deal Value	102	0.71	0.64	0.2	0.35	2.00
Tranche-level variables						
Years to maturity	124	7.45	3.56	4.37	7.00	29.59
Rating	64	BB/BB+	2.9 no.	CCC+	BB+	A-
Coupon (fixed rate, %)	81	4.64	2.18	0.50	4.50	12.00
Pre-2012	10	5.08	0.91	3.75	5.13	7.00
Post-2012	71	4.58	2.30	0.50	4.37	12.00
Spread to benchmark (bp)	43	404	247	100	332	1,134
Pre-2012	7	239	61	155	257	316
Post-2012	36	436	256	100	401	1,134
Spread to swap (bp)	24	202	104	60	184	514
Pre-2012	6	222	51	145	225	290
Post-2012	18	196	116	60	172	514
Yield to maturity (%)	70	4.77	2.41	0.68	4.56	12.67
Pre-2012	8	5.40	0.75	4.61	5.28	7.00
Post-2012	62	4.66	2.53	0.68	4.34	12.67
From filing to settlement (days)	90	21.04	90.43	-	7	794
Luxembourg Stock Exchange	32	6.53	2.38	-	7	12
Irish Stock Exchange	24	9.54	8.04	-	7	38
Unlisted	28	10.64	20.90	-	3	98

3.1 What drives the choice of non-financial companies to issue bonds in the market?

To study the determinants of the choice of accessing the bond market for the first time, we look for differences between issuers and non-issuers. To this end, we collect financial data from Bureau Van Dijk Amadeus on all Italian non-financial companies, incorporated under the legal status of S.r.l. or S.p.a., with total assets in excess of €10 million (last reported).

We then match each first-time issuer with its closest comparable non-issuer belonging to the same peer group, as defined according to Amadeus' industry and size classification. In particular, we pair up each first-time issuer with its closest comparable in terms of annual sales in the year prior to the issue. *Table 2* provides summary statistics on these companies in terms of: age, total assets (and rate of growth in the year before the issue), sales (and rate of growth in the year before the issue), leverage (computed as the ratio between long term financial debt and total assets), return on assets (computed as the EBIT reported in the year before the issue over total assets), return on equity (computed as the net income reported in the year before the issue over the book value of equity), and investments (proxied by the growth in fixed assets net of depreciation and amortization expenses in the year before the issue). As expected, first-time issuers are large, mature and prof-

[3] In unreported analysis we compare first-time issuers with all other non-financial companies available on Amadeus that have never issued any bond. First-time issuers are larger, both in terms of total assets and sales, more mature, more leveraged and more profitable, in terms of return on assets alone, than non-issuers. Results are available upon request.

itable companies.[3] The average company reports total assets of more than €2.3 billion and sales in excess of €1.3 billion. This organization is nearly 30 years old and still growing, both in terms of assets (+9% the year before the issue), sales (+10% the year before the issue) and investments (+27% the year before the issue). No significant difference emerges between issuers and their comparables, apart from greater financial leverage. Indeed, issuers report an average leverage of 21% in the year prior to offering, while the corresponding figure for their comparables is 14%. This is consistent with the issuers recurrently reporting debt refinancing as their intended use of proceeds (see *Figure 11*) and may suggests a pecking-order among sources of debt. In this framework, companies would rank bank debt first in order of preference, and then tap debt markets on a residual basis as an alternative source of funding.

TABLE 2
Summary statistics for first-time issuers and comparable non-issuers (in the year prior to the issue)

	First-time Issuers		Non-Issuers		Differences	
	Mean	St.Dev.	Mean	St.Dev.	Diff.	T-stat
Age	28.47	28.02	29.96	25.35	-1.49	(-0.34)
Total assets (€, M)	2,353.89	4,010.00	1,504.26	3,605.83	849.63	(1.33)
Asset growth	0.09	0.40	0.10	0.59	-0.01	(-0.13)
Sales (€, M)	1,346.01	2,071.79	921.70	1,857.84	424.31	(1.29)
Sales growth	0.10	0.47	0.05	0.30	0.06	(0.79)
Financial leverage	0.21	0.16	0.09	0.14	0.11***	(4.58)
Return on assets	0.06	0.05	0.04	0.09	0.02	(1.62)
Return on equity	0.09	0.19	0.08	0.19	0.01	(0.17)
Investment rate	0.27	0.72	0.32	1.26	-0.05	(0.27)

*, **, and *** indicate that the coefficients are different from 0 at 10%, 5%, and 1% levels of statistical significance, respectively.

To better assess whether the decision to issue a bond for the first time is rooted in pre-issue characteristics of the firms in question, we model the choice of accessing the bond market as a dichotomous variable that takes the value of 1 for companies that issued a bond and 0 otherwise. We then link the decision to issue a bond to its determinants by means of a probit model. These determinants are company characteristics, as reported in the year prior to the issue, including the age of the company, its size (computed as the logarithmic transformation of its total assets), growth (in terms of total assets), leverage, return on assets, and rate of investment. This approach is similar to the one adopted by Acconero et al. (2015) to study first-time corporate bond issuers in Italy. *Table 3* shows the results of our analysis under alternative model specifications, focusing on different groups of variables.[4]

[4] In unreported analysis on a broader sample, including all non-financial companies available on Amadeus that have never issued any bond, we obtain equivalent results. In this case, though, in addition to company size and leverage, also higher returns on assets are associated with a greater likelihood of being a first-time issuer, consistent with their superior ability to service debt.

The estimation of the model indicates that size and leverage are the key characteristics that drive the issuer's decision to launch a bond, rather than resorting as usual to more traditional bank loans. Indeed, larger and more leveraged companies are more likely to be first-time issuers. More specifically, according to model specification IV, one standard deviation increase in size or leverage, all else being equal, would escalate the probability of a bond issue by approximately 15.5% and 12.8%, respectively. The positive relation between company size and the probability of bond issuance is consistent with the high fixed costs of the latter and high information asymmetries preventing smaller enterprises from accessing the market (see Cantillo and Wright (2000), Dennis and Mihov (2003) and Mitzen and Tsoukas (2013)). On the other hand, the information asymmetry between larger, more reputable issuers and investors is narrower, facilitating the placement of the securities to a broader investor base. In addition, larger company size is associated with larger issues. In fact, the Spearman correlation between a company's total asset and the value of its bond issue is 0.497, statistically significant at the 1% level. This favors the liquidity of the securities, making them more appealing for investors, and better justifies the fixed costs of a bond issue. Moreover, larger company size is linked to higher leverage, consistent with a greater ability to generate cash flows and an enhanced borrowing capacity. Across our sample of issuers and non-issuers, the Spearman correlation between a company's total asset and its leverage ratio is 0.357, statistically significant at the 1% level. Therefore, the positive relation between the probability of bond issuance and leverage is consistent with the proven borrowing capacity (Dennis and Mihov (2003)) of larger and more indebted firms, as well as the need to rebalance their financial structures.

TABLE 3
Probit model estimation: coefficients and year-clustered robust standard errors (in parenthesis)

	I	II	III	IV
Age	-0.0027236	-0.0019688	-0.0015914	-0.0016025
	(0.0040916)	(0.0033983)	(0.0033383)	(0.0033293)
Size	0.4368095***	0.374299***	0.3625392***	0.3647086***
	(0.0736445)	(0.0891235)	(0.0891327)	(0.0887714)
Growth	-0.0017064	0.0166445	0.0107996	-0.2153883
	(0.2129543)	(0.2091434)	(0.2115168)	(0.4460608)
Leverage		2.41807***	2.467171***	2.497409***
		(0.7904562)	(0.8187685)	(0.8324293)
Return on assets			2.658473	2.816041
			(2.35366)	(2.468451)
Investment rate				0.1240493
				(0.1631475)
Constant	-5.843847***	-5.373184***	-5.369887***	-5.424613***
	(0.9205141)	(1.081372)	(1.153082)	(1.150214)
n. obs	126	126	126	126
Pseudo R2	0.11	0.16	0.18	0.18

*, ** and *** indicate statistical significance at the 10%, 5% and 1% level, respectively.

3.2 What drives the pricing of bonds at launch?

To discover what motivates companies to access bond markets for the first time, we need to address the closely related question of which factors are relevant in determining corporate bond pricing. To do so, we investigate by means of OLS regressions the key fundamental variables that can explain primary market pricing of the inaugural bonds in our sample. This approach is similar to the one adopted by Sironi and Gabbi (2002) to study the issuance spreads of Eurobonds.

We consider all the tranches offered in the first-time issues in our sample. The dependent variable is either a tranche yield to maturity at launch (available only for fixed rate issues) or its spread to benchmark (available for fixed and floating rate issues, but with more missing observations). Independent variables include a broad set of issue characteristics:

- High Yield, a dummy variable equal to 1 for tranches with a rating below BBB- and 0 otherwise.
- Rating, a continuous variable that assigns a numerical (progressive) value to different rating classes, with higher values being associated with better credit quality as in Corielli et al. (2010).
- Domestic, a dummy variable equal to 1 for tranches offered only domestically and 0 for international tranches (including Euro).
- Private Placement, a dummy variable equal to 1 for private placements and 0 for public issues.
- Multiple Tranches, a dummy variable equal to 1 if the offering involves multiple tranches and 0 otherwise.
- Offering size, a continuous variable representing the logarithmic transformation of the total deal value in euro.
- Secured, a dummy variable equal to 1 if the tranche is secured and 0 otherwise.
- Callable, a dummy variable equal to 1 if the bond is callable and 0 otherwise.
- Luxembourg, a dummy variable equal to 1 if the tranche is registered in Luxembourg and 0 otherwise.
- Number of Bookrunners, a continuous variable indicating the number of bookrunners placing the bond.
- Float, a dummy variable equal to 1 for floating and variable rate tranches and 0 for fixed rate tranches.

Table 4 shows the results of our analysis under alternative model specifications, focusing on different groups of variables. The estimation sample varies considerably across different specifications due to data availability, making the interpretation of the coefficients less robust. However, a few clear relations emerge. First, non-investment grade tranches are associated with higher yields and higher spreads to benchmark, consistent with the higher level of credit risk involved. According to model specification III, on average, all else being equal, the yield at launch on investment grade tranches is 1.37% lower than for high yield ones, and the spread to benchmark is lower by almost 200 bps. The same holds true if the High Yield dummy is replaced by the continuous variable capturing the different rating classes (unreported). In this case a rate downgrading corresponds on average, all else being equal, to a 0.2% increase in the yield at launch and a

rise by 21 bps of the spread to benchmark. Yet investors seem to be more concerned with the probability of default than with the loss given default. Indeed, secured tranches are associated with higher yields and higher spreads to benchmark. This suggest that while collateral mitigates losses in case of default, and to some extent can also affect the ratings, its impact is limited in terms of preventing default. Secured tranches may then proxy for higher credit risk, everything else being equal, if, for example, their frequency is higher in the lower end of the investment grade class or in the lower end of each rating class.

In addition, tranches offered only domestically or tranches that form part of a multiple offering are linked to lower yields. Granted, proximity with investors reduces information asymmetry, which leads to a lower cost for accessing the market. Yet lower borrowing cost can be the result of the domestic market representing a smaller liquidity pool, which is accessible only to stronger issuers. In the same vein, structuring larger issues in multiple tranches allows companies to cater to different investor types, while enhancing the credit quality of the more senior tranches.

Finally, floating rate tranches are associated with lower spreads to benchmark. This result, though, cannot be generalized, as we believe it is specific to the time frame of our analysis. Fixed and floating rates reflect to a different extent the slope of the yield curve. If long term rate expectations are significantly higher than short term ones, then the spread to benchmark of floating rate tranches will be lower than that of fixed rate tranches and vice-versa.

TABLE 4
Linear regression model estimation: coefficients and year-clustered robust standard errors (in parenthesis)

	Yield to Maturity (%)			Spread to Benchmark (bp)		
	(I)	(II)	(III)	(I)	(II)	(III)
High Yield	2.484***	1.836**	1.376**	381.078***	291.924**	198.168**
	(0.748)	(0.702)	(0.481)	(80.48)	(93.58)	(66.81)
Domestic	0.099	-0.264	-2.798***			
	(1.205)	(0.924)	(0.817)			
Private Placement	-0.435	-0.859	-0.412			
	(0.723)	(1.175)	(1.031)			
Multiple Tranches	-0.723	-0.689	-1.532**	32.44	45.491	-7.436
	(0.709)	(1.026)	(0.641)	(81.929)	(64.835)	(89.23)
Offering Size		-0.348	0.052		-56.195**	-88.324
		(0.442)	(0.383)		(22.793)	(60.21)
Secured		1.1	1.553**		137.622	181.382**
		(0.826)	(0.516)		(74.284)	(63.41)
Callable		1.062	0.895*		39.779	4.82
		(0.594)	(0.433)		(73.671)	(52.459)
Luxembourg			-0.632			23.046
			(0.543)			(103.796)
No. Bookrunners			-0.187*			0.989
			(0.095)			(4.621)
Float rate				-71.706	-181.935***	-199.245***
				(83.667)	(40.923)	(49.756)
Constant	4.095***	10.5	3.638	216.571***	1,306.200**	1992.933
	(0.353)	(8.527)	(7.245)	(19.027)	(439.761)	(1173.467)
Observations	70	63	54	43	43	36
R-squared	0.31	0.419	0.527	0.57	0.661	0.768

*, ** and *** indicate statistical significance at the 10%, 5% and 1% level, respectively.

4 CONCLUSIONS AND RECOMMENDATIONS

The picture that emerges from our analysis of the corporate bond market for Italian companies indicates that this market, although seen as a residual resource in the past, has been progressively tapped by a larger pool of players. This reflects an increased corporate understanding of the importance of developing alternative financing options and the danger of relying excessively on bank lending. Indeed, the transition from bank funding to disintermediated, market-based alternatives represents an extremely welcome development in the corporate funding for Italian companies, which displayed financial weaknesses during the crisis due to their historical and anomalously almost exclusive reliance on conventional bank credit.

As a matter of fact, the interplay between the high stock of NPLs, which has burdened the balance sheets of Italian banks in recent years, and the loose monetary policy stance of the ECB, has created favorable circumstances for the development of the corporate bond market. Of course, recent legislative efforts, technological innovation and the role of yield-starved investors are all ingredients which should not be left out of the recipe. In Section 2, we showed that the rise of this market is not symptomatic of a European wide trend, as the growth of the share of debt securities over total debt in Italy soared by a staggering 127% (2007-2017), while the same figure for the euro area was 72%. In relation to the difficulties of the Italian banking sector, the enhanced access to debt capital markets was accompanied by a reduction of more traditional sources of funding, as shown in *Figure 5*. In comparison to 2007, the Italian market for corporate bonds increased fourfold in euro value and even more in terms of numbers of offerings (*Figure 7*). As impressive as these figures may seem, investment in Italian corporate debt securities is still driven by foreign demand (see Accornero et. al, 2018).

In the third section of this work, we identified the most likely determinants and costs of corporate bond issues in the Italian market, leveraging a fairly diversified sample with offering sizes ranging from € 5 million to € 1.6 billion. We noted a relevant number of issues falling in euro area markets (79%); most of these had a single tranche and were coordinated by more than 3 bookrunners. In order to compare first-time issuers to similar companies which had not tapped into the corporate bond market, we matched the two types of companies using sales figures (relating to the year prior to the issue). By comparing the two groups we highlighted how the only statistically significant difference across a wide array of financials is attributable to financial leverage (which is higher among first-time issuers). In order to provide more color to these figures, we also estimated a probit model to uncover the main drivers of the probability of becoming a first-time issuer. Across the variety of parameters we tested, size and leverage proved to be the only significant determinants. Both results are consistent with previous findings published in the literature. Lastly, by means of a simple OLS specification, we explored the determinants of bond pricing (always focusing on first-time issuers). "High-yield" is the only characteristic which positively impacts the price, both the yield to maturity and the spread to benchmark, across all 6 models (3 for each dependent variable). For the other numerous characteristics we considered, statistically significant results emerged either in some specifications only (e.g. Domestic Placement and Model III) or in none at all (e.g. Private Placement).

Overall, these results do paint a picture of an evolving market, caught in the tension between new forces driving the demand and supply of debt capital. On the demand side, the need to fill the corporate funding gaps resulting from the retreat by banks from lending sums up with companies' desire to diversify their sources of debt funding. On the supply side, the reduction of bank credit in response to higher capital requirements is offset by more appetite from yield-seeking investors. Everything, then, leads towards a progressive transition from bank funding to disintermediated, market-based alternatives. Yet, moving from the macro picture to the micro level of the economy, our analysis shows that company size can be an obstacle to debt market funding. With this in mind, policy needs to focus on promoting the development of a larger and stronger domestically focused investor base that ensures that also SMEs can take full advantage of the beneficial effects of debt funding diversification.

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The key question of this edition of the paper is what drives Italian companies to issue a bond for the first time (inaugural offering) and the determinants of the pricing of that bond at launch. Our goal is to identify the main differences between issuers and non-issuers and among various issue types, in order to shed light on what factors may foster or hinder the ongoing corporate funding disintermediation process. To answer these questions, we collect data on 102 inaugural bond offerings by Italian non-financial companies over the period 2009-2018. From a comparison of issuers with their closest comparable firms we show that company size and leverage are the key pre-issue characteristics that drive the issuer's decision to launch a bond, rather than resorting to more traditional bank loans. Then, looking at the pricing of these bonds, we identify credit rating, issue size and proximity with investors as the key determinants of their yields at launch.