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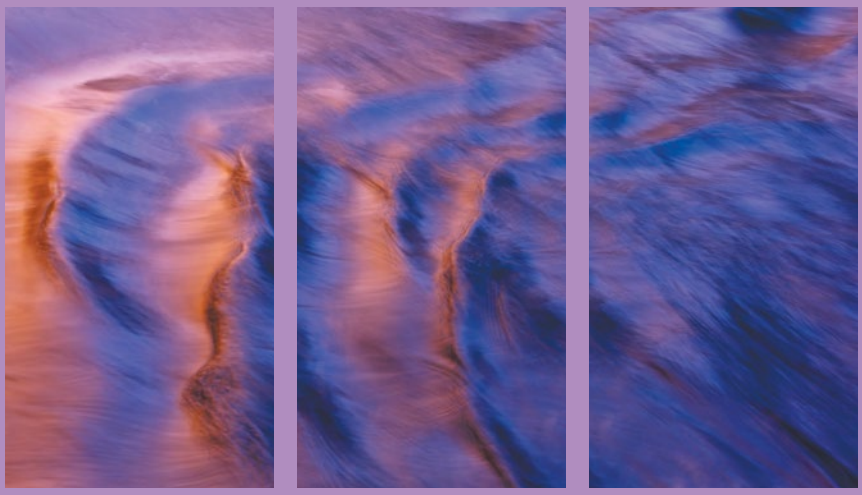
New Perspectives on the Bank-Firm Relationship

Lending, Management and the Impact of Basel III



Paola Ferretti

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To Giorgio and Edoardo,
for the love that unites us

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Introduction

The current crisis scenario has shed new light on the crucial role of intermediaries in the growth of firms. This has generated interest in the complexity and variety of bank offerings as competitive advantages in their relationships with enterprises. This in turn raises issues such as the intervention levers banks might use to strengthen their relationship with firms, overcoming vulnerabilities and distortions accumulated over time and creating value for both.

On the one hand, the search for a more integrated bank-firm relationship requires banks to adopt appropriate credit risk management procedures on the basis of efficient mechanisms of selection and control of the investment projects of client companies. On the other hand, intervention in new business areas is also important in enabling banks to take on a prominent role in supporting firms, hence shifting the focus to closer relationships and a broader offering than credit alone.

Such considerations have to be further examined in light of the ongoing international financial and economic crisis, which started in 2007, and the subsequent revision of banking regulations (Basel III), which featured stricter capital, liquidity and leverage ratios. While contributing

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to building a safer financial sector, the regulatory requirements have caused banks to adjust their business models, which may present possible negative impacts on lending activity.

In the context of more selective credit policies, the analysis of internal ratings is crucial. Indeed, they play a relevant role in credit decisions, loan pricing and credit risk measurement and management for banks' internal purposes (in addition to supervisory objectives). In particular, the rating system identifies all structured and documented methodologies, organizational processes and control, which enable the collection and processing of relevant information for the formulation of the risk assessment of the borrower. To this end, banks need to analyse the firm's long-term growth and profitability opportunities and avoid extreme standardization in the evaluation process. In other words, it is necessary to integrate the results of the statistical methods with qualitative information, which can be collected from a continuous confrontation between the firm and the credit relationship manager (soft information). This particularly applies in times of adverse economic situations, in which scoring models tend to lose part of their predictive ability. Hence, the main critical aspects of credit risk analysis seem to be attributable to the insufficient collection and modest contribution of qualitative data, which are essential for enriching the standardized risk measures. Counterparty rating assessment therefore needs to be strengthened by facilitating the acquisition and processing of all information available and valuing proximity to the market, which can also require profound revising processes of organizational models, decision-making procedures and the connected systems of delegation and powers.

A key factor in bank lending is also represented by the credit guarantees, both personal and real. They are traditionally used as important tools to ease financial constraints, especially for small and medium firms that are often limited in their ability to access credit and to negotiate convenient terms and conditions. The reasons of such limitations could be the scarce reliability of financial statements, short credit histories and asymmetric information: all factors able to negatively impact the most efficient allocation of credit. However, it could be that the borrowers do not have availability of appropriate assets to provide to lenders as guarantees; this is the rational behind credit guarantee schemes, both public and

private. Among these, the Mutual Guarantee Institutions play a relevant role as a wealth pooling mechanism, by allowing inefficiently rationed borrowers access to credit.

In recent years, with the advent of the financial crisis and the prudential regulatory framework on capital adequacy for banks, the key role of guarantees in bank lending has become even stronger. Under Basel III (and previously under Basel II) banks can use the credit risk mitigation techniques, if considered eligible as credit protections, to reduce the credit risk associated with an exposure. This inevitably impacts on bank-firm relationships by defining additional opportunities for negotiation between banks and businesses, which rely on the renewed role assigned to the guarantees.

Despite the relevance of bank lending, the prevalent opinion now is that its dominance is one of the causes underlying the slower recovery of the euro-area countries, when compared with more diversified financial markets. There is evidence that during recessions market-based financial systems are more resilient than bank-centric systems, especially when the fall in economic activity goes hand in hand with a financial crisis. Therefore mitigating the limits of a financial system that relies excessively on banks is needed. The aim of diversifying the sources of financing is connected to the need to build a stronger and safer financial system. Accordingly, this will allow the most farsighted banks to support and orient their customer businesses within more specialized and diversified funding sources and consequently to reshape a partnership role with firms. It also involves reviewing the content of bank offerings which (although maintaining the key role of lending) aims to raise new paradigms, according to which banks can draw concrete benefits from a more complex and diverse financial system. Banks could indeed become effective conduits of information on financial innovations, as these are gradually introduced in the field of corporate finance, and strengthen the role of consultant and supporter in gaining access to direct financing channels, with obvious advantages to income levels. Yet lending maintains its central role, especially for small and medium enterprises, for which banks will likely remain the primary source of financing.

The new role of banks aligns with the conviction that market financing should complement, not replace, the role of banks in supporting the

economy. Within this new scenario, there is an opportunity to break the vicious circle whereby banks' difficulties translate into lesser credit or more expensive credit terms and conditions for enterprises. This therefore seems to be the essence of the renewed integration of the banks-enterprises-financial markets.

The new supervisory and market setting still impacts the balance sheets of European banks, in which lending is the primary activity. Moreover, because of profit-related weaknesses and regulatory pressures on liquidity and capital positions, there is a need to intervene in their business models, which could bring value to their core business. First, there is a need to modernize credit risk measurement and management processes in order to try to reduce the weight of impaired loans and hence stabilize the overall profitability. Secondly, there is a need to strengthen relations with business providing tailored support, ranging from the traditional lending and merchant banking to more sophisticated services with high added value.

The book is divided into six chapters including the Introduction. The second chapter 'The bank-firm relationship: how did it change with the financial crisis?' provides a description of the main features of the relationship between banks and firms, by underlining its content, development and prospects under pressure from the international financial and economic crisis. It focuses on the factors affecting the evolution of banks' lending during the crisis years, by distinguishing between demand and supply factors driving loan growth. Among the latter, Basel III requirements are a key factor.

The third chapter 'Credit risk assessment: the internal rating systems' highlights the characteristics of the internal ratings systems, considered as a tool both for regulatory and internal purposes. The progressive importance recognized by the regulations (from Basel I to Basel III) has helped to make internal ratings crucial in the processes of credit risk measurement and management adopted by banks. It is important to underline the strengths and weaknesses of such systems, in order to assess their possible impacts on the relationship between banks and firms.

The fourth chapter 'Credit guarantees: the role in bank lending' highlights the rationale of credit guarantees within the relationship between banks and firms. An overview of the main regulatory requirements the

guarantees must comply with, in order to be considered eligible as credit protections, is presented. Then the Mutual Guarantee Institutions, as a mechanism which fosters the access to credit by riskier firms, especially small and medium ones, are investigated. The analysis focuses on the Italian system, on the recent reforms and the connected operational and strategic impacts on the activity of such operators. The chapter ends by describing the role of the Italian Guarantee Fund for Small and Medium Enterprises. Its role has become increasingly relevant in supporting firms with poor credit ratings during the crisis period. At present, however, there is a need for its reform, in order to make the Fund more effective, by abandoning the 'contingency' type management which has characterized recent years.

The fifth chapter 'Banks, firms and financial markets' provides a review of some initiatives, which in recent years have been undertaken both at country and international levels to respond to the urging for a new balance in the relationship between companies and financial market, considered as a whole. Among these initiatives, we particularly recall the creation of the Capital Markets Union, which helps diversify the sources of funding in the European economy. Having more diversified sources of financing is good for investors and businesses and is essential to financial stability, because it could mitigate the impact of potential problems in the banking sector on firms and on their access to finance.

The sixth chapter 'Is banking business changing? Some evidence' reports the results from a survey on international banks in order to illustrate the intensity and breadth of the changes—mirrored in banks' balance sheets—that has occurred recently and which affected banking businesses. We then shift the attention to the Italian setting and explore the main aspects of the credit risk management processes of a sample of banking groups and report the recent experience of two intermediaries with reference to the content they offers to firms and the related key features.

2

The Bank-Firm Relationship: How Did It Change with the Financial Crisis?

2.1 Introduction

The current economic crisis has shed new light on the role of banks in the growth of firms, evidencing the need for novel meeting points within the bank-firm relationship.

As a consequence of the financial turmoil, banks have been hit by liquidity and solvency problems, with a drop in their lending activity. This, in turn, severely affected firms (particularly small and medium-sized ones) that traditionally relied on bank debt for their external financing needs.

The decline in lending reflected both a drop in demand and a tightening of banks' credit terms and conditions: on the one hand, the excessive indebtedness of firms and the overall weak economic conditions led to reductions in credit demand; on the other hand, credit supply dropped, leading to important effects on the real economy. Some banks were more adversely impacted than others, with inevitable effects on the distribution of credit in the economy. Interestingly, however, many banks that would have had enough capital for granting loans preferred not to embark on

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new lending relationships with firms outside their circle of established relationships. This latter aspect of the bank-firm relationship thus proved pivotal during this historic economic moment and confirms studies that indicated that banks involved in closer relationships with customer companies seem to have more incentives to protect their relationships with firms during adverse times as well as healthy ones.

This behaviour regarding credit supply was basically influenced by funding and its cost, as well as regulations (Basel III). However, the degree to which these factors influenced bank behaviour was further determined by each bank's characteristics (size, capitalization, to name a few).

This chapter aims to analyse the most relevant issues relating to the bank-firm relationship and its main features and determinants—primarily lending. To this end, the remainder of the chapter is organized as follows: Section 2.2 provides a description of the rationale of the bank-firm relationship. Section 2.2.1 reviews the corresponding relevant literature. Section 2.3 examines the evolution of European banks' lending over time, with particular reference to the crisis years. Section 2.3.1 analyses the demand and supply factors affecting the trend of credit. Section 2.4 focuses on the conditions that mostly prevented banks from granting loans to firms during the crisis: capital, liquidity and profitability constraints. Finally, Section 2.5 draws closing conclusions.

2.2 The Bank-Firm Relationship: General Remarks

The role of banking systems in supporting the growth of firms has long been debated by academics and industry practitioners, and has returned to the spotlight following the global economic crisis. The current scenario has in fact moved the emphasis to the crucial nature of intermediaries in the growth of firms, generating interest about the complexity and variety of banks' offerings as factors of competitive advantage in their relationship with firms. This raises issues such as the intervention levers banks might use to strengthen their relationships with firms, overcoming vulnerabilities and distortions accumulated over time and creating value for both.

Indeed, it is worth remembering how the credit channel, especially in systems like the Italian one, has consolidated its central role in satisfying the financial needs of firms, particularly smaller ones, due to the poorly structured and evolved financial system (Ferretti 2006). In spite of this predominance of the banking system, the bank-firm relationship and its single counterparts have not always reached full development, given that the short-term perspective was favoured over the medium- to long-term one. One of the many factors that has encouraged such behaviour—at least within the Italian scenario –is undoubtedly multibanking and the associated lack of transparency in the exchange of information between parties. Defined as the practice of maintaining credit relationships with multiple banks, multibanking allows firms a wider freedom in obtaining and managing financial resources (often in larger amounts than needed), obtaining more favourable terms, and taking advantage of the competition between banks in terms of availability of funds (overcoming rationing policies) or the higher rates applied. However, such fragmentation of customer-bank relationships impacts the quality and reliability of information on the firm's general situation, weakening the bank's control over the funded enterprises. Moreover, this encourages the opportunistic behaviour of firms towards lenders and introduces the risk of building the firm's liability on risk and instability.

From the bank's point of view, multibanking is to some degree acceptable, since its practice allows splitting the risks relating to the lending activity and ensuring enough liquidity for the corresponding portfolio, supposing that its equilibrium conditions cannot be negatively affected by a single credit line. This approach, obviously, cannot solicit adequate development of screening and monitoring activities and pushes banks to adopt behaviour based on insurance criteria. This, in turn, may clash with the nature of an integrated bank-firm relationship, which is the only one that can facilitate a timely and reliable information flow. However, there are different objectives pursued by each party: while the bank tends to protect itself from possibly inaccurate information concerning the economic and financial situation of its client, the firm is almost exclusively interested in minimizing the cost of credit and increasing the financial resources obtainable. Hence, so far the practice of multibanking has hindered the consolidation of the bank-firm relationship during its course,

and has driven banks to condition the granting of credit to the provision of guarantees by the customer, independently of any careful consideration concerning the firm's actual performance and future potential for development. Such policies have failed to support banks in developing adequate control and monitoring procedures regarding a firm's results, undermining the effectiveness of the screening activity upon granting the loan, and later monitoring the situation after disbursement of the loan. The lack of qualified skills and the consequent weakening of the organizational structures then are reflected on the general inadequacy of the bank to understand the validity of the development strategies formulated by firms; this at times has led to difficult financial situations due to inaccurate evaluation of the firm's expansion plan and to unsuitable financial coverage provided.

As noted, the multibanking policy negatively affects the quality of the information that the intermediary may have about the economic and financial situation of the borrower and its growth prospects, thereby accentuating the gravity of the problem of information asymmetries. It is equally obvious that the fragmentation of relationships implies fractioning of information and credit analysis (at least theoretically) by each supplying bank and therefore determines an increase in the cost of intermediation. This may trigger imitation policies in granting credit. These can occur repeatedly, in particular among the smaller-sized banks which proceed to firms' financing on the basis of decisions taken by larger competitor intermediaries, giving life to the free-riding phenomenon, which overlaps the exploitation of knowledge acquired by others on behalf of a single operator. Such behaviour, in turn, facilitates the spread of multibanking practices, to the extent that the follower bank benefits with cost savings by making credit assessments based on the investigation prepared by others, and may thus set the basis for offering more advantageous conditions for potential customers.

Therefore numerous reasons call for a review of the bank-firm relationship. The search for a more integrated bank-firm relationship that can facilitate the pursuit of expansion objectives of those directly involved, first requires that banks engage in the correct analysis of the peculiarities of the business requirements and, consequently, in the provision of loans with conditions and terms consistent with the hallmarks of the funded activities. Only this way they can concretely contribute to

the financial support of the industrial sector, which needs an adequate supply as a precondition for its full development. Linked to this is the adoption on behalf of the banks of appropriate management procedures, as the basis of efficient mechanisms of selection and control of the investment projects of client firms. All such considerations must however be set in accordance with a dynamic logic that privileges the long-term objectives and aims to identify the characteristics of the customer companies as a key prerequisite for assessing their future ability to produce income.

On one hand, it is necessary that banks streamline processes for evaluating funding requests, strengthen the monitoring of loans, and develop trusting relationships with customers, especially in this period of crisis, characterized by the market's increasingly severe loss of confidence in the financial system. On the other hand, firms must show a greater willingness to entertain a highly integrated relationship with lenders, without fearing interference in their management (Ferretti 2006).

A significant contribution with reference to these two points may derive from the implementation of internal rating models for internal purposes thus enhancing the distinctive trait of banking. The use of internal ratings (Chap. 3), based on classifications of obligors and/or loans depending on the levels of risk associated with correspondingly different probabilities of default, presupposes the ability to previously acquire, and later process, confidential information relevant to customers, representing an essential production factor in intermediation (e.g. Campanella et al. 2013; Gabbi and Matthias 2013).

For the Italian banks, in particular, it comes down to exploiting an aspect of strength that has always characterized the relationship with firms, especially with small and medium-sized ones. The internal rating systems, in fact, are based on the wealth of knowledge that an individual intermediary achieves, thanks to the breadth and continuity of relations with firms, as well as the presence of effective statistical sources.

A reliable internal rating system also appears to facilitate a more timely perception of any deterioration in credit quality and, thanks to more accurate estimates of the risk of individual positions, favours the most relevant pricing policies by applying different prices based on the risk conditions involved.

Also, intervention in new business areas has a positive effect on banks' opportunities to undertake a prominent role in supporting firms. Without minimizing the importance of lending (provided that it proves to be innovative and flexible in line with the changed operational setting), the bank's ability to offer a wide and varied range of high value-added products and services consolidates customer relations. It is therefore suggested that intermediaries should focus on the intensity of the relationships maintained with firms and the provision of services beyond lending. In other words, it is worth considering the opportunity to enrich and extend activity beyond simple and anonymous lending, in order to reach a new consistent form of relationship banking. The latter approach seems confirmed by some factors, including the intensification of competitive pressures and by the increased stratification and specialization of the financial system, factors that have highlighted the need to review market penetration strategies. This orientation, on the other hand, based on the concentration of customers served and on a more substantial added value of products and services offered may contribute, *ceteris paribus*, to the reduction of the impact of customer management costs and to a more proportional increase of revenue, resulting in higher unit margins. At the earnings level, there are further noteworthy considerations; first of all, the price rigidity of the demand for high-value advisory services, compared to more traditional products, ensures more interesting income results; secondly the margins associated with traditional intermediation activities are no longer as significant as in the past to the bank's overall results (Sect. 2.4).

Therefore the identification of alternative business lines seems to help balance the economic conditions of banks. It basically allows for an increase in revenue related to the services provided, within which the area of corporate finance can play an important role and produce interesting results. Particularly in the case of Italian banks, we must consider how the diversification of revenue has yet to be accomplished, given that, so far, it has mainly centred on activities such as securities brokerage, whose vulnerability to economic cycles has obscured the stabilizer function of profitability. Therefore the competitive capacity within corporate banking needs to be strengthened in the context of international competition, where some foreign systems have already acquired considerable experience and know-how in the last years (Ferretti 2006).

This evolutionary path should clearly include organizational restructuring in favour of innovation, differentiation, training and the conversion of professional resources, as well as the definition of a banking model, such as the relationship-based one. The broader relevance of banking organizational aspects for firm financing—especially for small firms—is pointed out, among others, by Bellucci et al. (2016). The authors focus on the presence of information asymmetries and agency problems within the bank, on communication costs and on the limits of information-processing capacity as factors with significant implications for the organization of lending and the optimal allocation of decision-making rights within banks, in order to support information collection and communication.

The considerations outlined above are further confirmed in the light of the ongoing international financial and economic crisis, which started in 2007, as shocks to the banking sector spread to the real economy through a drop in the supply of credit. This highlights the crucial role of lending and its determinants, as well as the importance of advisory services provided to firms to identify proper solutions for their financing needs which are alternative, and/or additional, to bank financing, in order to obtain more balanced financial structures. Altogether, this represents the essence of a renewed relationship between banks and firms.

2.2.1 Background Literature

The bank-firm relationship has long been a topic of interest and has been extensively documented in literature. Particularly relevant is the debate concerning the transition from the transaction approach to the relationship approach and its respective consequences. As it is widely acknowledged, transaction banking is focused on single operations, whereas relationship banking represents an approach based on the intensity of the relationships held with the firm and on the supply of services other than financing. In particular, Boot (2000) defines the relationship lending as "the provision of financial services by a financial intermediary that invests in obtaining customer-specific information, that is often proprietary in nature and evaluates the profitability of these investments

through multiple interactions with the same customer over time and across products". Bolton et al. (2013) state that the transaction and relationship models basically differ in that the latter offers higher-cost loans in an initial phase—and in normal times—but more favourable continuation-lending terms during crisis periods, and altogether suffers fewer defaults. This also underlines the significance of relationship banking in terms of lowering procyclicality and it points out how such an approach is coherent with the requirement of counter-cyclical capital buffers under the new regulatory framework for banks (usually referred to as Basel III), which therefore seems to enhance the centrality of the relationship model, as it could contribute to reduce the risk of a credit crunch. Nonetheless, this distinctive feature of mitigating crisis effects is closely dependent on the excess equity capital banks are able to hold prior to the turmoil: the greater the buffer, the more effective the relationship behaviour can be (Albertazzi and Marchetti 2010; De Mitri et al. 2010).

In a broader perspective, relationship banking can help in handling information asymmetries, through access to private information regarding a firm's creditworthiness—especially in the case of small businesses. Thanks to a close relationship between banks and firms, information asymmetry and agency problems tend to be less severe in the case of bank lending rather than other forms of financing. Banks have in fact access to 'inside' information, which is collected on the basis of repeated contact with firms (Fama 1985; Diamond 1989). Screening and monitoring activities by banks are therefore helped by the use of such information (known as 'soft information' as opposed to 'hard information'), which requires a more subjective evaluation of the firms' creditworthiness and is acquired by continuous interaction between the loan officer and the firm's manager (Berger and Udell 2002; Petersen 2004). In particular, soft information includes qualitative, not easily available and quantifiable information, and hence is particularly suitable for supplementing a lack of clear information about the growth potential of firms, especially smaller ones (Garcia-Appendini 2011). Soft information provides the means of protecting bank loans on the basis of updated contract terms which can be tailored around a firm's specific characteristics. Moreover, it can help mitigate the constraints of credit availability: soft information about a firm's current economic and financial situation as well as its future plans

could ensure continuation-lending terms (Bolton et al. 2013). Besides, the threat of future credit rationing tends to discourage firms from moral hazard behaviours (Stiglitz and Weiss 1981).

To sum up, closer relationships between banks and firms allow for the collection of a great amount of soft information which is in fact a key factor in achieving various advantages. As pointed out by Diamond (1991), firms' reputations can benefit from bank borrowing certification in terms of greater opportunities to raise funds on capital markets. The outcome is the opportunity to diversify the sources of funding, which is consistent with the above mentioned reputation theory (Diamond 1989) and the signalling theory (Leland and Pyle 1977).

Agency problems can be mitigated too, as the threat of a bank loan reduction forces managers to pursue less risky initiatives (Rajan 1992). Banks' privileged information from monitoring could therefore positively impact on the quality of firms' governance, with consequent less risk-taking and more disciplined managers. As shown by Dass and Massa (2006) a more intense relationship could increase managerial turnover, abate rent-appropriation by managers, lower their insider trading and curb the incentives to initiate merger and acquisition activities. A problem on the equity markets could however arise: bank informational advantage lowers the incentives of other market participants to hold a firm's stock; hence the adverse selection could reduce stock market liquidity and trading volume.

An analysis on the effects of a close relationship between banks and firms should also consider which types of firms most benefit from such a banking model. To this end, D'Aurizio et al. (2015) focus on firms' ownership structures, by analysing the differences in access to bank lending during the crisis with regard to Italian family run and non-family run businesses. Their results show that for the former the effect of attenuating the agency conflicts in the relationship with banks is positive and closely related to the use of soft information by lenders.

Despite the unquestionable benefits connected with the relationship approach, there are studies which have evidenced that costs could limit or eliminate the corresponding benefits. For example, several authors refer to the hold-up issue, i.e. when a close and long-term bank-firm relationship allows the bank to acquire a great deal of inside information

about the firm and then exploits its position of monopoly on information by restricting the firm in passing on information about its quality to other intermediaries (Sharpe 1990; Rajan 1992; Greenbaum et al. 1989). Hence, while the exclusivity of a unique bank-firm relationship could provide advantages to firms in terms of offering implicit insurance services (Berlin and Mester 1998), as the bank is inclined to grant emergency credit lines in case of liquidity crisis on the basis of a trust relationship (Corigliano 2007), the risk for the firm is that the bank could increase interest rates, expropriating the firm of a part of its profits (Greenbaum et al. 1989; Sharpe 1990; Rajan 1992). This risk increases in the case of small and medium businesses (Sharpe 1990; Rajan 1992). Nevertheless, Castelli et al. (2012) find an inverse relationship between firms' performance and the number of bank-firm relationships. They hence point out a positive value (greater for small businesses) of fewer relationships - lower information asymmetries and less costly agency problems - outweighing hold-up problems associated with limited relationships.

In order to overcome the hold-up problem, some scholars suggest multiline financing and information sharing among intermediaries (Padilla and Pagano 1997), which clearly reduces the benefits linked to the relationship model. For example, von Thadden (1998) points out how the informational advantage of a bank could imply hold-up costs that may negatively affect a firm's value; such limitations could be overcome by multiple banking relationships. Forestieri and Tirri (2002) draw the same conclusions for the Italian system; they in fact suggest that the multibanking approach can represent a solution to the hold-up problems originated by relationship banking.

Another pitfall of an exclusive relationship model is represented by the soft budget constraints, which is when a financial institution (and government) is willing to provide additional resources to a firm or to bail it out (Boot 2000; Bolton and Scharfstein 1996; Dewatripoint and Maskin 1995). In other words, a firm could take advantage of a creditor capturing behaviour, with the risk that funds might be used inefficiently or for survival rather than for viable investments. This could result in credit crunches for smaller or new firms, that may face expensive banks loans or be totally denied access to credit (Lízal and Svejnar 2002).

2.3 Bank Lending During the Financial Crisis

In the following sections the bank-firm relationship will be examined in further detail, with regard to its evolution over time and in particular in relation to the financial crisis period.

With the crisis, on a world scale banks firstly experienced liquidity problems and then severe issues of insolvency (among others, Colombini and Calabrò 2011).

Firms, above all small businesses, that traditionally rely on bank debt for their external financing needs, were particularly at risk from a collapse in bank lending (Cole 2012). Indeed, they met increasing difficulties in obtaining finance and sharp increases in loan interest rates. Even firms with good credit histories were not immune to these problems.

Thus, bank lending declined substantially during the crisis. Some of this decline clearly reflected a drop in demand, as firms scaled back expansion plans during a recession. However, there was also a supply factor: banks with less access to deposit financing and at greater risk of credit-line drawdowns reduced their lending more than other banks. It is easily comprehensible how a drop in the supply of credit had important implications: the fact that some banks were more adversely impacted than others therefore affected the distribution of credit in the economy. At the same time, it is worth considering that some banks had enough capital to make loans, but were unwilling to extend credit to firms with which they had no prior relationship.

Hence, depending on the bank's characteristics, many pressures influenced banking lending, such as funding and its cost, regulations (Basel III) and, at a macroeconomic level, the weak economic conditions and growth expectations. In particular, the combination of increased capital requirements and minimum liquidity standards under Basel III were irrefutable factors. While the tightened regulatory requirements affected banks' availability of capital, the cost of maintaining higher capital and liquidity requirements had an impact on credit supply and its terms and conditions. The recapitalization efforts affected banks' supply of funds, by forcing banks to look for ways to reduce lending.

2.3.1 An Overview of the Trend of Credit: Demand Versus Supply Factors

In the wake of the international crisis that erupted in the second half of 2007, it is interesting to examine its effects on bank lending, focusing on the European system and in particular on the Italian system.

A specific objective is to understand the factors affecting the evolution of banks' lending by distinguishing between demand and supply factors driving loan growth, as well as analysing the intensity of such phenomena, depending on the characteristics of both banks and firms.

The final goal is to highlight the main implications of the financial crisis on bank lending, on one side, and the distribution of credit in the economy, on the other. This latter in particular could allow the identification of firms that have suffered the most difficulties in accessing credit and how banks have selected their own clientele in a period of great uncertainty.

To this end, reference is first made to data from the European Central Bank and in particular from the Eurosystem's Bank Lending Survey (BLS, henceforth) for the euro area. Launched in 2003 and carried out at a quarterly intervals, BLS's main objective is to enhance the Eurosystem's knowledge of financing conditions. It is designed to complement existing statistics on loans and bank lending rates with information on supply and demand conditions in the credit markets and on the lending policies of banks. It addresses several issues, such as the credit standards applied when approving loans, as well as the terms and conditions of new loans to enterprises (and households); it also asks for an assessment of demand for loans to them. The survey is addressed to senior loan officers of a representative sample of around 140 banks from all euro area countries and takes into account the characteristics of the respective national banking structures.

Data covering the fourth quarter of 2015, compared to previous periods, show a general further easing in credit standards on loans to enterprises, thereby providing continued support to the ongoing recovery in loan growth. Box 2.1 shows the outlook on the credit trend and its conditions and terms in detail, and presents the data with reference to credit standards, terms and conditions, rejection rate for loans, and demand for loans.

Box 2.1 Credit trend (ECB 2016)

Credit standards. They were eased more strongly on loans to small and medium firms than on loans to large firms. Across the euro area countries, credit standards continued to ease considerably in Italy and remained unchanged in the other countries; in France they continued to tighten. Euro area banks expect a further easing of credit standards on loans to enterprises.

Among the factors driving the easing in banks' credit standards on loans, banks' competitive pressures are the principal key variable; reduced risk perceptions contributed only marginally to an easing, while cost of funds and balance sheet constraints and banks' risk tolerance had broadly no impact. It is worth pointing out that perception of risk refers to the bank's perception of actual risk and its reaction to developments connected to the general economic situation and outlook, the industry or firm-specific situation and outlook, the borrower's creditworthiness, as well as the collateral demanded (demand factors). On the other hand, on the basis of the risk tolerance of the bank, its lending policies may alter due to changes in the underlining business strategy (supply factors). The bank's perception of actual risk and its risk tolerance may either change in line with each other or move in different directions.

Competition had an easing impact on standards in France, Italy and the Netherlands, while the effect was unchanged in Germany and Spain. Lower risk perceptions accounted for easing effects on standards in Italy and the Netherlands (unchanged for Germany, Spain and France). Cost of funds and balance sheet constraints only moderately contributed again to an easing in Italy, while they remained broadly unchanged for other large countries. Regarding the impact of risk tolerance, Italian banks reported an ongoing moderate easing contribution, while French and German intermediaries indicated some tightening impact.

Terms and conditions. Overall, terms and conditions applied to new loans to firms continued to ease. A large group of banks reported a further narrowing of margins on average loans to enterprises, while

(continued)

Box 2.1 continued

they indicated only some narrowing of margins on riskier loans. Other terms and conditions on loans or credit lines (e.g., non-interest rate charges, size, collateral and maturity) also continued to ease. Among the factors driving the easing impact in credit terms and conditions, competition was the key factor in all the euro area countries.

Rejection rate for loans. Euro area banks' rejection rate for loan applications (that is the difference between the sum of the percentages of banks reporting an increase and that of banks reporting a decline in the share of loan rejections) continued to decrease slightly.

Demand for loans. All the euro area countries showed an increase in demand (unchanged for France). The general level of interest rates continues to be the key factor for the increase in demand. Financing needs related to working capital and fixed investment were strong factors supporting demand, followed by debt refinancing and renegotiation and the financing of merger and acquisition operations. Financing needs for inventories and working capital were particularly important for loan demand in Italy and Spain, contributed positively in Germany, and negatively in France and in the Netherlands. Financing needs related to fixed investment increased in all countries (except France and the Netherlands) and constituted the strongest driver in Germany. The availability of alternative finance had a dampening impact on loan demand in Germany and Spain and a neutral effect in Italy and France; by contrast, Dutch banks recorded a positive contribution.

Focusing on the phenomenon in the context of the more global trend, it is worth underlying that following the strong recovery throughout 2014 and early 2015, the external financing of euro area enterprises has stabilised, standing at levels similar to those experienced in the first half of 2012 and in 2004 before the strong credit expansion took place (ECB 2015b). Having declined for three consecutive years, bank loans to firms, as already mentioned, turned positive at the beginning of 2015, but loan dynamics have remained subdued, despite some strengthening during the year.

This provides a quite encouraging scenario for the evolution of credit as is today. Nonetheless it is important to consider in greater detail the dynamics of credit in times of crisis. In other words, although the brief comments outlined above show a general easing in credit standards, it is important to focus on the banks' behaviour during the peak years of the financial crisis, in order to understand its impact on the real opportunities for firms' financing and consequently on the main features of the bank-firm relationship.

There are many studies concerning the evolution of credit during the financial crisis: Albareto and Russo (2012), Buca and Vermeulen (2015), Blaes (2011), Panetta and Signoretti (2010), Albertazzi and Marchetti (2010), Hempell and Sorensen (2010), to name a few. All these studies are aimed, among other things, at identifying the main indicators, both on the supply and demand sides, affecting the slowdown of bank lending during the financial turmoil. In general, it is confirmed that if in the first years of the crisis the demand-side factors played an important role in explaining the slowdown in loan development, then the supply-side factors also had strong dampening effects. In other words, reductions in credit have been significantly driven by lower demand, stemming from the excessive indebtedness of firms, as well as due to generally weak economic conditions and growth expectations; on the other hand, banks have tightened credit conditions since the start of the crisis, with—as seen above—some recent improvements.

Focusing in particular on the Italian system, the credit dynamic during the crisis years shows a fluctuating trend, as the general negative evolution has experienced more severe slowdowns in 2009 and 2012, especially for small businesses and firms with great financial fragility. In particular, between mid-2008 and the end of 2009 the rate of growth of Italian banks' loans decreased progressively. Then, the weak economic recovery in 2010 resulted in a moderate growth of credit until the second half of 2011, when the sovereign crisis led to very severe difficulties for Italian banks, notably with regard to funding, negatively affecting the dynamics of credit again (Banca d'Italia, various years).

With regard to its determinants, the credit trend reflected variability depending on the different phases of the crisis, and supply and demand factors. Initially, the negative evolution could be in fact mostly

connected to a decrease of loans demand by firms, as a consequence of reduced needs and investments. Then, the trend was affected by an increasing tightening of credit terms and conditions (higher financing costs, increase in the guarantees required, and higher ancillary expenses, to name a few). In other words, the contraction in lending in Italy was due not only to the weakness of demand, but also to banks' supply policies, which remained prudent towards all firms and especially to the riskiest ones.

Given this overall situation, it is however possible to point out different approaches depending on the size of the bank. Immediately after the collapse of Lehman Brothers (on 15 September 2008), loan development varied strongly based on the size of the lender. Indeed, lending by the five largest banking groups (accounting for about an half of total lending in the economy) strongly contracted, and lending by the other banks (other large, small banks and branches of foreign banks) more than compensated for such behaviour. The underlying causes of the largest banks' approach are mainly connected to the greater impact of the crisis on the structure of their balance sheets, which was significantly more oriented to wholesale funding and trading activities.

Over time, because of the continuation of the crisis, the adoption of tighter supply conditions by banks has become more homogenous across their size. The greater uniformity in the credit contraction across banks' size, characterizing the most recent crisis years, is due to the difficulties faced by all the intermediaries, irrespective of size, in terms of funding and, above all, of progressive deterioration in credit quality.

To this end, it is worth noting that immediately after the collapse of Lehman Brothers the deterioration in the credit quality was particularly significant in the case of the five largest banking groups. In 2009, for these banks, adjusted new bad debts to total loans was 2.2 per cent, almost twice the previous year's value. Over the next three years, the ratio remained almost stable (2.3 per cent in 2012). As far as the other banks are concerned, the deterioration in the credit quality was limited in 2009, but afterwards it accelerated: in 2012 small banks registered a significant increase in the above-mentioned ratio—around 3 per cent (Banca d'Italia, various years).

To sum up, especially during certain phases of the financial crisis, differences in banks' size resulted in alternative approaches to lending, affecting the probability of rationing, due to different lending policies and consequent capacity to select customers by banks of various sizes.

Small banks, generally involved in close relationship with customers, seem to have more incentives to protect the relationship with firms during adverse periods. This observation is in accordance with most of the existing literature on the bank-firm relationship (see Sect. 2.2.1) and is also confirmed by relevant empirical studies. Among these, Albareto and Russo (2012) point out that during the crisis, firms with more than 30 per cent of their loans coming from their first bank were more financially protected by the intermediaries, particularly if they are small ones. In other words, during the crisis years, firms that had a small bank as main intermediary had a lower probability, compared to other enterprises, of suffering difficulties in terms of credit terms and conditions. Moreover, within closer bank-firm relationships, the probability of credit rationing was lower for firms with greater growth prospects. Such results may be explained by the greater capacity of the main bank, which is more involved in lending, to collect more information and its inclination to better use it during the selection process.

More in general, in the context of a weak economy the availability of external funding can be relevant for a firm's growth potential. In particular small businesses, which traditionally rely on bank debt for their financial needs, could be strongly at risk from a collapse in bank lending.

Such considerations recall the attention on the firm's financial structure, which in recent years, especially in Italy, has increasingly been leaning towards bank credit. In a comparison of businesses across the international setting from 2007 to 2013, Italian businesses feature a more fragile financial structure due to a lower capitalization, characterized by rather stable differences compared to other countries since the beginning of the crisis (see Table 2.1).

Based on the most recent data at system level (data refer to 2015), financial conditions of Italian businesses are improving for the first time since the beginning of the financial crisis (Banca d'Italia 2015b). In fact, difficulties in paying back debts have decreased while the opportunities for accessing new loans have increased. Moreover, risks linked to going

Table 2.1. Percentage composition of firms' liabilities and financial indicators

Countries and years	Bonds	Bank debt	Equity	Commercial debts	Liabilities /GDP	Share of bank debt	Leverage (Financial debt to the sum of financial debt and shareholders' equity at market prices)
Italy							
2007	2.0	31.8	46.9	19.3	2.34	66.9	41.8
2012	3.4	33.9	42.7	20.0	2.22	66.5	46.7
2013	4.1	31.5	44.7	19.7	2.28	64.2	44.4
France							
2007	3.7	20.1	64.3	11.8	3.95	40.1	27.0
2012	6.7	22.0	57.7	13.6	3.64	38.4	33.2
2013	6.2	20.0	60.9	12.9	3.92	38.3	30.2
Germany							
2007	2.5	28.1	47.0	22.5	1.96	53.7	39.4
2012	2.7	29.1	44.2	23.9	1.80	52.5	41.8
2013	2.7	27.7	47.2	22.4	1.88	50.9	39.2
Spain							
2007	0.3	34.0	48.6	17.1	3.84	64.5	41.4
2012	0.5	40.9	44.1	14.6	3.23	51.5	48.4
2013	0.6	37.0	49.9	12.4	3.42	46.2	43.0
Euro area							
2007	2.4	29.1	54.0	14.5	2.99	51.6	36.9
2012	3.8	32.0	49.7	14.4	2.84	47.0	41.9
2013	3.8	29.8	52.8	13.6	2.97	45.5	38.9
UK							
2007	7.5	28.2	59.4	5.0	2.57	41.3	37.5
2012	10.4	27.9	56.3	5.4	2.54	31.3	40.5
2013	10.3	26.4	58.1	5.2	2.57	29.6	38.7
USA							
2007	9.8	15.8	57.4	17.0	2.92	37.6	30.8
2012	14.5	14.2	54.4	16.9	2.70	29.8	34.5
2013	13.9	12.8	58.9	14.3	2.98	29.1	31.2

Source: Banca d'Italia 2014

into debt have diminished although they are still high. In particular, leverage, which had decreased by 6 percentage points compared to 2011, remains high compared to that of other systems in the euro area. The gap, of approximately 10 percentage points for the majority of businesses, is particularly wide for small enterprises.

As stated, the conditions and terms of accessing credit are tending to improve. Bank loans to risky firms are decreasing, while they have begun to increase again for the others. In the third quarter of 2015 the quota of firms declaring they had not obtained any financing decreased to 10 per cent, though small enterprises kept experiencing most difficulties in obtaining new loans—although slightly less than before compared to larger firms.

Another positive data is that the prospective growth of sales and performance determine favourable conditions for strengthening the balance sheets of the most financially fragile businesses. A few forecasts for 2016 project a significant reduction in the number of vulnerable businesses and of the weight of financial debts over the total. In 2014, as the cyclical turning point got closer, the number of vulnerable businesses and the incidence of their debts over the total have remained almost unchanged (33 and 34 per cent, respectively). Forecasts for 2016 predict that the weight of vulnerable businesses will decrease to 25 per cent due to the combined effect of the economic recovery, of the further decline in interest rates, and the exit of the less stable businesses from the market; moreover, it is estimated that the quota of debts on behalf of vulnerable businesses will decrease to 36 per cent (Banca d'Italia 2015b). The upswing would be more considerable for medium-sized businesses whereas it would not affect micro-enterprises whose financial fragility remains high despite the recent feeble improvements. It must be underlined, however, that such projections remain somewhat biased by the uncertainty concerning the profitability of smaller businesses. However, the financial fragility of businesses could shrink less than expected in the event of growth in interest rates (for further reading see De Socio and Michelangeli 2015).

Such considerations are relevant also in the light of several studies evaluating the banks' tightening of credit terms and conditions and the real effects entailed. For example, according to the study by Buca and Vermeulen (2015) analysing enterprises in some euro area countries, such

results are sizeable. In particular, during years of crisis, borrowers most heavily relying on bank debt reduce their investments compared to the non-bank dependent borrowers. Moreover, it is not the level of indebtedness that matters per se, but rather the indebtedness with banks. Hence, taken together these findings suggest the link between the sternness of the euro area recession and the degree of dependence of firms on bank lending.

This last conclusion is particularly relevant for the Italian system in which firms are still so heavily dependent on bank debt, without showing any marked signs of a counter-trend. This situation has been confirmed on an international scale and over an extended timeframe, as over time there has been no relevant rebalancing in the Italian firms' financial structures in favour of alternative forms of financing other than loans—either as debt or as equity capital. Basically, regarding a bank-based economy, distortions in credit supply may possibly have a sizeable impact in Italy. The weaknesses of the Italian financial system, centred on the role of banks and with poorly developed bond and stock markets and so unable to offer enterprises valid financing alternatives to bank lending, have caused a fall in credit supply on the real economy. In other settings the reduction in credit supply has been just as marked, yet it has not entailed the effects reported in Italy; this seems to be due to the presence of better structured financial systems that could provide firms with alternative forms of financing (Panetta and Signoretti 2010).

2.4 Bank Constraints on Lending: Capital, Liquidity and Profitability

The analysis now turns to conditions that withheld banks from issuing credit to businesses throughout the financial crisis, to the prudential regulatory initiatives that followed (Basel III), and to the different weight exerted by individual factors. In order to delve into these aspects, we must keep in mind the differences between banks in terms of capitalization, funding sources and liquidity position, as well as of profitability, but also the differences between firms, with particular reference to their risk.

It is well acknowledged that with the financial crisis banks experienced liquidity problems, as they became increasingly unwilling to lend to each other, due to rising default rates on sub-prime loans and uncertainty about each other's exposures. Later, they experienced also severe issues of insolvency, as house prices began to fall and losses on sub-prime loans emerged (Fraser 2012).

Severe pressure on the liquidity positions, a marked reduction of profitability and a strong erosion of capital buffers summarize the situation of banks in the euro area and beyond during the financial crisis. In such a setting, it is thus apparent how some bank-specific characteristics could affect the provision of credit during a crisis period. Basically, the constrained credit supply can be explained in light of the banks' weak balance sheets resulting from excessive leverage (debt overhang), legacy assets and high levels of non-performing loans, in addition to the fact that raising significant amounts of capital in primary markets, rather than through profit retention, could be difficult under the weak economic circumstances.

With reference to this last aspect, there is evidence of how banks' capitalization may affect the supply of credit. Among others, Brei et al. (2013) show that banks with higher regulatory capital ratios increase credit supply during non-crisis periods and in crisis years only when capital reaches a critical threshold. Kapan and Minoiu (2013) show that well-capitalized banks (in terms of both quantity and quality of capital held) reduced syndicated lending less than others during crisis times. Albertazzi and Marchetti (2010) analyse the relationship between capital and lending in the six-month period after Lehman's collapse, and consider other differences across banks (mainly in size and organization). They show that larger, less-capitalised banks reallocated loans away from bad firms ('flight to quality'), thus contributing to procyclicity; conversely smaller, less-capitalised banks did not, likely due to the lower impact of the risk-sensitive capital requirements under Basel II and, above all, to evergreening. This phenomenon consists of providing 'cheap' credit to riskier borrowers in order to postpone credit losses. It seems easier for smaller rather than larger ones to do, because of the lower weight of credit scoring techniques in their credit decision processes. Another factor that could contribute to the viability of evergreen in small banks is represented by the organizational

aspect, for example the relevance of agency costs in major groups, that might be an inducement to centralize credit decision processes by limiting the autonomy of the local credit officer and therefore making evergreen more difficult. Finally, the lack of 'flight to quality' by smaller banks could depend on the greater availability of soft information on riskier borrowers by these intermediaries as opposed to larger ones. This kind of information, as already mentioned, could facilitate the continued funding of risky firms with good economic fundamentals but temporary financial difficulties (the 'virtuous patience approach').

Another key element in assessing banks' ability to provide credit is represented by the business model adopted, considering that it can be distinguished by the nature and scope of funding strategies and the activities they engage in (among others, Ayadi and De Groen 2014). As stated by Gambacorta and Marques-Ibanez (2011), banks with a greater dependence on market funding and on non-interest sources of income (connected with non-traditional activities) reduced the credit supply more strongly during the crisis years. As is well known, in recent years, banks have gradually abandoned the 'originate to hold' approach (that is when lenders make loans with the intention of holding them through maturity) and developed the 'originate to distribute' one, based on financial innovation and deregulation. In short, the latter represents the intermediation model in which banks originate, repackage and sell their loans to the financial markets. This has induced banks to have a greater reliance on market sources of funding, such as short-term funding and securitization activity; the consequence has been an increasing dependence on the capital markets' perception and at the same time a lower reliance on deposits to expand the loan base. Hence, the composition of banks' debt funding sources matters for the loan supply, as the short-term funding and/or additional funding via market sources seem to limit banks' ability to supply loans in periods of financial instability, due to their greater vulnerability to liquidity shocks (Aiyar 2012; Cornett et al. 2011; Ivashina and Scharfstein 2010; Raddatz 2010). Confirming such results, Kapan and Minoiu (2013) point out some complementarities between long-term liquidity and capitalization of banks, as the former contributes to support syndicate lending only for well-capitalised banks.

As a further consequence of banking deregulation, banks have enhanced their diversification of income sources, by increasing the weight of non-interest income revenues (trading and investment banking fees and commissions, to name a few), which is typically more volatile than interest-rate income. Loan supply seems to be negatively affected by the diversification in banks' profitability, as banks with more profitable, but also more volatile, non-interest income activities decreased their lending portfolio to a greater extent during the crisis (Gambacorta and Marques-Ibanez 2011). To sum up, not surprisingly, more diversified banking models imply a stronger contraction of credit supply, especially during a crisis period.

The findings above, focusing, among others, on capital and liquidity as possible determinants in credit supply, recall the initiatives of prudential regulation undertaken by supervisors since 2010 (Basel III) in response to the crisis. Hence, it is interesting to understand whether or not these measures can affect the ability of the above-mentioned drivers to act as mitigating factors in the transmission of shocks through bank lending.

The following text reports some considerations that could be useful towards establishing a general outline of the new international regulatory framework for banks, Basel III.

Basel III is a comprehensive set of reform measures, developed by the Basel Committee on Banking Supervision (BCBS), with the objective of strengthening the regulation, supervision and risk management of the banking sector (BCBS 2011, 2013 and 2014b). The overall aim of the reforms is (1) to improve the banking sector's ability to absorb shocks arising from financial and economic stress, thus reducing the risk of spillover from the financial sector to the real economy, (2) to improve risk management and governance and (3) to strengthen banks' transparency and disclosures. Basel III targets bank-level regulation, in order to raise the resilience of individual banking institutions to periods of stress (the microprudential approach). It also targets system-wide risks that can build up across the banking sector as well as the procyclical amplification of these risks over time (the macroprudential approach). These two approaches to supervision are complementary as greater resilience at the individual bank level reduces the risk of system-wide shocks (a summary of the contents of Basel III is shown in the Box 2.2).

Some observers argue that Basel III requirements could represent one of the supply-side factors negatively affecting banks' lending. Overall, it

Box 2.2 Basel III: an overview of the key contents (BCBS 2011; 2013; 2014b)

Capital

- *Quality and Level of Capital*. Focus on Common Equity: the minimum rises to 4.5 per cent of risk-weighted assets (RWAs), after deductions. Tier 1 Capital (Common Equity and Additional Tier 1) to risk-weighted assets rises to 6 per cent and Total Capital (Tier 1 capital and Tier 2) to risk-weighted assets remains at 8 per cent.
- *Capital Loss Absorption at the Point of Non-viability*. Contractual terms of capital instruments include a clause that allows—at the discretion of the relevant authority—write-off or conversion to common shares if the bank is judged to be non-viable. This principle increases the contribution of the private sector to resolving future banking crises and thereby reduces moral hazard.
- *Capital Conservation Buffer*. Comprising Common Equity of 2.5 per cent of risk-weighted assets, bringing the total common equity standard to 7 per cent. Constraint on a bank's discretionary distributions will be imposed when banks fall into the buffer range.
- *Counter-Cyclical Buffer*. Imposed within a range of 0–2.5 per cent comprising Common Equity, when authorities judge that credit growth is resulting in an unacceptable build-up of systematic risk.

Risk coverage

- *Securitizations*. Strengthens the capital treatment for certain complex securitizations. Requires banks to conduct more rigorous credit analyses of externally rated securitization exposures.
- *Trading Book*. Significantly higher capital for trading and derivatives activities, as well as complex securitizations held in the trading book. Introduction of a stressed value-at-risk framework to mitigate procyclicality. A capital charge for incremental risk that estimates the default and migration risks of unsecuritized credit products and takes liquidity into account.

(continued)

Box 2.2 (continued)

– *Counterparty Credit Risk*. Strengthening of the counterparty credit risk framework through (1) more stringent requirements for measuring exposure; (2) capital incentives for banks to use central counterparties for derivatives; and (3) higher capital for inter-financial sector exposures.
– *Bank Exposures to Central Counterparties (CCPs)*. Trade exposures to a qualifying CCP receive a 2 per cent risk weight and default fund exposures to a qualifying CCP are capitalized according to a risk-based method that consistently and simply estimates risk arising from such default fund.

Containing leverage

– *Leverage Ratio*. A non-risk-based leverage ratio that includes off-balance sheet exposures serves as a backstop to the risk-based capital requirement and helps contain system-wide build-up of leverage.

Liquidity

– *Liquidity Coverage Ratio (LCR)*. This requires banks to have sufficient high-quality liquid assets to withstand a 30-day stressed funding scenario (specified by supervisors).
– *Net Stable Funding Ratio (NSFR)*. This is a longer-term structural ratio designed to address liquidity mismatches. It covers the entire balance sheet and provides incentives for banks to use stable sources of funding.
– *Principles for Sound Liquidity Risk Management and Supervision*. The Committee's 2008 guidance Principles for Sound Liquidity Risk Management and Supervision takes account of lessons learned during the crisis and is based on a fundamental review of sound practices for managing liquidity risk in banking organizations.

(continued)

Box 2.2 (continued)

– *Supervisory Monitoring*. The liquidity framework includes a common set of monitoring metrics to assist supervisors in identifying and analysing liquidity risk trends at both the bank and system-wide level.

SIFIs: Global Systemically Important Financial Institutions

In addition to meeting the Basel III requirements, SIFIs must have higher loss absorbency capacity to reflect the greater risks that they pose to the financial system. A methodology that includes both quantitative indicators and qualitative elements to identify global systemically important banks (SIBs) has been developed. The additional loss absorbency requirements are to be met with a progressive Common Equity Tier 1 (CET1) capital requirement ranging from 1 per cent to 2.5 per cent, depending on a bank's systemic importance. For banks facing the highest SIB surcharge, an additional loss absorbency of 1 per cent could be applied as a disincentive to increase materially their global systemic importance in the future.

must be underlined that Basel III requirements on capital and liquidity tend to raise a bank's safety and strength of its balance sheets and by means of this makes it more capable of performing its intermediation function in crisis times (among others, Tutino et al. 2011).

In any case it is important to distinguish short-term logic from a medium to long-term one. Indeed, based on short-term logic, lending volumes might be negatively affected by such prudential regulation, considering that banks are tending to lower high risk-weighted assets in their portfolios, affecting lending to various sectors of the economy, and thus hampering growth. As banks progressively increase their capital reserves in accordance with Basel III and reduce high risk-weighted assets, they could benefit by lowering their cost of funding due to improved portfolio risk (Capgemini 2014).

With reference to the process of capitalization, it is useful to note the interesting results achieved for European banks (EBA 2015b). Between December 2009 and December 2014 their Common Equity Tier 1 ratios (Common Equity to Risk-Weighted Assets) increased from 9 to 12.1 per cent. The strengthening of the European banks' capital positions has been driven mainly through real capital issuances rather than through reducing the risk-weighted assets. An adjustment to the capital ratios driven by the denominator is often seen as particularly critical, as it could be the result of adjustments to internal models (for credit risk, see Chap. 3). It could also happen through a decrease in lending to the economy attracting higher capital charges, which might in turn reduce the ability of the banking sector to help the recovery. In any case, the real improvement of the capital position achieved by European banks should place them in a better position to increase their lending activity and to reduce their costs of funding. Important risks however remain linked to economic and political uncertainty, especially in some euro area countries and in emerging markets. These developments may trigger additional problems in the future. Moreover, current weak levels of profitability might jeopardise the natural way that banks have to strengthen their equity, preventing them from increasing their capital buffers through retained earnings. Therefore attention should be paid to the ability of banks to maintain their capital base through retained earnings, and to their dividend policy, in a context of low profitability (EBA 2015b).

A comparison between 55 European banks and the 20 largest US banks (according to their total assets) shows how the former are in a better position in terms of solvency, while the latter are outperforming in terms of profitability (see Table 2.2).

Table 2.2 shows the major improvement in capital positions (Tier 1 to Risk-Weighted Assets—Tier 1 ratio) of European banks from 2009 to the end of 2014 when they reach levels above their US peers. The overall net increase of capital since the Lehman crisis has been more substantial for European banks. Nevertheless, in terms of profitability (as measured by return on assets—ROA), US banks significantly outperform European banks and are in a better place to keep moving forward and grow their capital base through retained earnings.

Table 2.2 Capitalization and profitability: a comparison between European and US banks (%)

	2009	2010	2011	2012	2013	2014
EU						
TIER 1 ratio	10.2	11.0	11.1	12.5	13.1	13.3
ROA	0.20	0.30	0.00	0.02	0.15	0.21
USA						
TIER 1 ratio	11.4	12.4	12.6	12.9	12.7	12.4
ROA	0.39	0.66	0.65	0.75	0.88	0.78

Source: EBA 2015b

It is thus apparent that another factor contributing to the banks' balance sheet constraint is linked to the banks' profitability (among others, Birindelli and Ferretti 2015), which is a crucial element that can affect lending capacity and the ability to build up further capital buffers.

In the euro area, banking system profitability continues in fact to be challenged by different factors (ECB 2015b). Among these, the low nominal growth and low interest rate environment make traditional banking activities such as retail lending using maturity transformation less profitable. Moreover, the large stock of legacy problem assets, particularly in the countries most affected by the financial crisis (such as Italy), remains a great obstacle for banks when providing credit to the real economy. Hence, banks with high levels of non-performing loans (NPLs) and moderate coverage ratios are more exposed to negative shocks affecting the credit quality of borrowers. Moreover, euro area banks' cost of equity still exceeds their return on equity. This negative gap is not sustainable in the long term because it means that equity investors require a higher return than the return that banks are able to deliver. Gradually, this will make it difficult for banks to attract capital and finance growth (ECB 2015b).

In the first quarter of 2015 the slightly higher profitability reflected an increase in non-interest income, a decline of loan loss provisions from historically high levels, and decreasing funding costs which outweighed the negative impact of asset yield reduction and higher operating costs. Such improvement also extended to banks in countries most affected by the financial crisis. Expectations for the next years are for subdued nominal growth prospects, low interest rates and relatively flat yield curves. This could challenge banks' traditional source of profitability in the maturity

transformation business. Some banks may be flexible enough to cope with this environment, others however may need to adjust their business mix towards activities that rely less on traditional interest income generating business (ECB 2015; see also Chap. 5).

The Italian setting represents a fitting example of weak profitability, featuring, in December 2014, high non-performing loan rates, that rose to 17.7 per cent of total outstanding loans. Yet, it is noteworthy to observe that on the same date the coverage ratio (that is the ratio of loan provisions to gross exposures) rose to 44.4 per cent (Banca d'Italia 2015a).

The strong deterioration in the quality of the loans on banks' balance sheets is clearly a consequence of the recession experienced by the Italian economy in recent years. Between 2008 and 2014 the NPLs of the Italian banking system grew from €131 billion to €350 billion, and their ratio to total loans rose by about 12 percentage points to, as above mentioned, 17.7 per cent. The deterioration mainly referred to loans to firms, was widespread across sectors of economic activity and geographical areas and involved banks of every size. Transfers of NPLs by means of sale or securitization and balance sheet derecognition have been restricted (less than €7 billion of bad debts in the two years 2013–14). A relaunch of this market could reduce the stock of NPLs more quickly, as happened after the recession of the 1990s, but there are some features specific to Italy that can represent obstacles to overcome (see also Sect. 4.2). Among these, credit recovery and insolvency procedures are much longer in Italy than in other European countries and differ greatly from region to region and even between courts in the same region. Moreover, NPLs in Italy are mainly represented by exposures to small businesses operating in differing sectors. The diversity of the collateral provided by firms makes it much more difficult to estimate the collateral's value than in countries where defaults are concentrated in a few sectors. In addition, the fragmentation of the Italian banking system is another key factor: many small banks lack both the expertise to manage the sale of NPLs and the technologies for efficient in-house management of these assets. Lastly, the still uncertain prospects of economic recovery in Italy make potential buyers alert.

Despite these criticisms linked to the peculiarities of the Italian system, it should be underlined how the creation of a market for bad loans would also be justified even on macroprudential grounds. Since the severe decline in credit quality forces a restriction of the supply of funds and an increase of interest rates by the majority of banks, the effects on the credit market clearly have macroeconomic implications (Banca d'Italia 2015a).

In summary, the Italian banking system presents extremely weak profitability with stagnating earnings caused by the prolonged period of economic weakness and by the fact that loan loss provisions soak up operating profits. The cost reduction and efficiency drivers undertaken by the banks in recent years have contributed to limit losses, but have not allowed the generation of sufficient profits. Consequently, the ability to strengthen capital with internal resources is modest.

An analysis of the evolution of profitability of Italian banks', comparing the current period (average for 2013 and 2014) and the periods before the crisis (average 2004–07 and average 1994–97) shows a strong reduction of ROA (see Table 2.3). This depended both on the fall in income, primarily due to the drop in net interest income, and the increase in loan loss provisions. The former was addressed by banks by reducing operating

Table 2.3. Italian banks' profitability

Income statements of Italian banks			
	2013–14	2004–07	1994–97
	Per cent of total assets		
Net interest income	1.02	1.50	2.50
Other income, net	1.20	1.40	0.97
Gross income	**2.21**	**2.89**	**3.48**
Operating expenses	**1.35**	**1.70**	**2.37**
of which: bank staff costs	*0.69*	*0.92*	*1.51*
Operating profit	**0.87**	**1.19**	**1.11**
Allocations to provisions and net value adjustments	**1.09**	**0.29**	**0.75**
of which: for loan impairment	*0.84*	*0.21*	*0.57*
Profit before tax (ROA)	**-0.23**	**0.91**	**0.37**
	Stocks		
Total assets (billions of euros)	3.219	2.704	1.291
Employees (thousands)	298	338	333
Branches (thousands)	31.6	32.6	24.6

Source: Banca d'Italia 2015a

expenses, such as staff costs, and in general implementing an organizational restructuring (Banca d'Italia 2015a).

The expected recovery of the banks' profitability will depend on several factors, such as the ability of banks to identify and exploit the different ways of enhancing their margins through an appropriate diversification of revenue. The positive effect from the improvement of the general macroeconomic situation, principally through its impact on operating profits and on credit risk, is undisputed.

2.5 Conclusions

The role of banking systems in the growth of firms has never been so relevant. The financial crisis and the persistent weak general economic situation evidence the need to identify new intervention levers that banks may use to strengthen the relationships with firms, in order to foster the creation of value for both and to overcome the vulnerabilities and distortions accumulated over time.

To this end, it is important to emphasize both the role of lending and the centrality of the advisory services provided to firms, in order to discover the proper solutions for their financing needs and consequently to achieve more balanced financial structures.

Altogether, this seems to represent the essence of a renewed and more integrated relationship between banks and firms. The search for a closer bank-firm relationship requires first that intermediaries engage in the correct analysis of the peculiarities of the business needs and, consequently, in the granting of loans with conditions and terms consistent with the hallmarks of the funded activities. Only this way they can concretely contribute to the financial support of the industrial sector, which needs an adequate supply of finance as a precondition for its full development. Linked to this is the adoption on behalf of the banks of appropriate management procedures, as the basis of efficient mechanisms for selection and control of the investment projects of client firms. All this in accordance with a dynamic logic, that privileges the long-term objectives and, thanks to the collection of soft information, is aimed at identifying the

characteristics of the customer companies, as a key prerequisite for assessing their future ability to produce income.

Such a renewed approach, however, must be considered in the light of the on-going financial and economic turmoil and the connected revision of the financial regulations (Basel III). Severe pressure on the liquidity and capital positions, together with the marked reduction in profitability, summarize the situation of European banks during the crisis years and explain the general tightening of credit terms. Particularly, Basel III measures could represent one of the supply-side factors negatively affecting banks' lending. At the same time, it is worth noting that such requirements tend to increase banks' safety and strength with the aim of making banks more capable of performing their intermediation function in adverse times. Hence, in a short-term scenario, lending volumes might be negatively affected by Basel III, considering that banks are led to lower high risk-weighted assets from their portfolio, affecting lending in various sectors of economy, thus hampering growth. As banks progressively increase their capital position in accordance with Basel III and reduce high risk-weighted assets, they could benefit by lowering their cost of funding due to improved portfolio risk. The strengthening of banks' balance sheets (higher capitalization, improved quality of credit, etc.) would help therefore to ease credit standards on loans to enterprises.

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3

Credit Risk Assessment: The Internal Rating Systems

3.1 Introduction

Whenever we speak about loans as the most widespread source of financing for firms (especially small and medium-sized ones)—either internal or external to the banking relationship approach—attention is necessarily drawn to the processes of credit risk measurement and management.

As widely accepted, credit risk can be defined as the occurrence of an unexpected worsening of the counterparty's creditworthiness, determining a just as unexpected contraction of the market value of the creditor's position. Accordingly, the process of measurement and management of credit risk coincides with the set of investigations, research, analysis and elaboration meant to provide information upon which the designated bank's officers can evaluate customer credit applications.

Moreover, with the introduction of supervisory provisions concerning banks' capital adequacy (more focused on the risk-sensitive principle), measurement and management activities over the last decade have become more relevant. Such a trend towards ever more sophisticated methods for measuring and managing credit risk have

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eventually led to elevating the concept of internal rating as its most extrinsic expression from a management point of view in addition to a supervisory one.

Hence, in the context of redefining regulatory criteria, it becomes crucial for banks to improve the assessment of counterparty creditworthiness and thus improve the acquisition and processing of information available, the exploitation of the vicinity to the market with reference to their advantage, the revision of organizational models (Schwizer 2005), decision-making procedures, and powers involved. Indeed, these points have been repeatedly emphasized as part of a broader logic of full support to businesses throughout a historical context of crisis. As claimed by Draghi: 'Banks need to integrate statement and income data with information collected on a local basis, make revisions of credit more timely, refine credit merit screening, introduce weighted incentives to those engaging in relationships with customers' (Draghi 2010).

In view of all aspects described above, we shall now analyse credit risk through the evolution of the framework of prudential supervision over the last years and its implications for bank management, in order to understand the impact such changes exerted on the bank-firm relationship.

To this end the remainder of the chapter is organized as follows. Section 3.2 provides an overview of the evolution of the banking regulatory capital adequacy. Section 3.3 focuses on the capital requirements for credit risk. Section 3.3.1 outlines the features of the Internal Ratings Based Approach. Section 3.4 analyses the main operational features of the Internal Ratings. Finally, Sect. 3.5 concludes.

3.2 Regulatory Capital Adequacy Framework: From Basel I to Basel III

Over the years the regulatory framework for capital adequacy of banks has undergone major reforms (Birindelli and Ferretti 2006).

The first international agreement on the assessment of capital and capital ratios dates back to 1988 when the Basel Committee on Banking Supervision set the levels of minimum capitalization (usually referred to Basel I). Although explicitly referring to credit risk, these criteria were also considered appropriate to offer coverage against other types of risk (BCBS 1988).

In addition to emphasizing the entrepreneurial independence of banking management, the link between the risks undertaken and capital resources entailed was intended to act as a protective element for the financial system over possible crises linked to excessive risk exposure. The 1988 agreement on capital also helped increase the capital base of the banks, as well as make uniform the rules applied across different countries. It also forced some credit systems—including the Italian one—to search for more efficient and more competitive structures from a market-oriented point of view. For some banks there has therefore been a strong driver to abandon the obsolete operational patterns of the past, which were often based on criteria unrelated to the economic sphere.

However, the Basel I accord presented some critical elements such as the exclusive treatment of credit risk, the insufficient recognition for supervisory purposes of risk mitigation instruments and the lack of alignment of capital ratios to the overall banking risk.

This suggested the need for revising the norms and procedures to update the 1988 accord, which was in fact amended especially in light of the growing complexity of the economic and financial setting entailed by the significant changes in the credit industry and the gradual rise of some forms of financial innovation (credit derivatives and securitization) as well as more advanced credit risk-management models. Indeed, such credit risk-management models have been encouraging the spread of regulatory arbitrage practices, especially in large banks, making it extremely difficult to define the correspondence between degree of risk and level of capital required. In particular, regulatory arbitrage consists of financial engineering that uses differences between economic substance and regulatory position to evade unwelcome regulation. Such practices are brought forth particularly by means of securitization and use of credit derivatives.

Therefore, the Basel Committee re-determined the prudential treatment of banking risks in a new international framework—usually referred to Basel II (BCBS 2006)—with the objective of improving the correlation between the capital requirements and the risks undertaken by banks and eventually encouraging the adoption of better risk-management approaches. It must be stressed that by then, however, the 1988 capital accord had already been modified in 1996 to take account of and set capital requirements for market risks. Market risks are the risks of

losses in on- and off-balance sheet positions arising from movements in market prices. Originally released in 1996, the document about market risks was modified in 1997 and further in 2005 (BCBS 2005).

Immediately appearing more complex compared to the relatively simple nature of the previous agreement, Basel II was intended to reduce the gap between prudential rules and market rules, encouraging the interaction among these and seeking greater adherence between regulatory and economic capital. Economic capital expresses the amount of capital that is necessary for the performance of activities against the assumption of a certain level of risk independently from regulations.

The framework for Basel II was built upon three Pillars, namely (1) the calculation of minimum capital requirements, (2) the evaluation of risk control systems and capital adequacy policies by the supervisory authorities, and (3) the efficient use of market discipline aimed at implementing transparency and promoting sound banking management policies. The intention of supervisors was to supervise banking risk through the joint operations of these three Pillars.

In later years following the financial crisis of 2007, the supervisory authorities felt the need to think over the prudential rules so as to ensure greater stability, solidity and transparency in the activities of the banking system. As previously mentioned (Chap. 2), this effort gave birth to the regulatory framework known as Basel III, adopted in Europe by the Capital Requirements Regulation (CRR—Regulation No 575/2013 of the European Parliament and of the Council of 26 June 2013 on prudential requirements for credit institutions and investment firms) and Capital Requirements Directive IV (CRD IV—Directive 2013/36 of the European Parliament and of the Council of 26 June 2013 on access to the activity of credit institutions and the prudential supervision of credit institutions and investment firms).

Although the formal starting point of the new regulatory system was in 2014, many requirements will be gradually introduced up to the beginning of 2019, by which time all the prudential measures should be fully operational. (This gradual approach is shown in Table 3.1.)

Table 3.1. Basel III entering into force

	2014	2015	2016	2017	2018	As of 2019
Leverage ratio	Parallel run 1 Jan 2013–1 Jan 2017 Disclosure starts 1 Jan 2015				Migration to Pillar 1	
Minimum CET1 ratio	4.0 %	4.5 %	4.5 %	4.5 %	4.5 %	4.5 %
Capital Conservation buffer			0.625 %	1.25 %	1.875 %	2.50 %
G-SIB surcharge			Phase-in			1.0–2.5 %
Minimum common equity plus capital conservation buffer	4.0 %	4.5 %	5.125 %	5.75 %	6.375 %	7.0 %
Minimum Tier 1 Capital ratio	5.5 %	6.0 %	6.0 %	6.0 %	6.0 %	6.0 %
Minimum total Capital ratio	8 %	8 %	8 %	8 %	8 %	8 %
Minimum total capital plus capital conservation buffer	8 %	8 %	8.625 %	9.25 %	9.875 %	10.5 %
Liquidity coverage ratio		60 %	70 %	80 %	90 %	100 %
Net stable funding ratio					Introduction of minimum standard	

Source: www.bis.org

The main reasons for the introduction of Basel III link back to the crisis, its manifestations and the inability of banks to adequately deal with the consequences, mainly due to operational distortions that have gradually characterized the banking business in recent years. In particular, in the years preceding the crisis the banking sectors of many countries had built up excessive on- and off-balance sheet leverage; this was accompanied by a gradual erosion of the level and quality of the capital base. At the same time, many banks were holding insufficient liquidity buffers. The banking system therefore was unable to absorb the resulting systemic trading and credit losses. The crisis was further amplified by a procyclical deleveraging process and by the interconnection of systemic institutions through an array of complex transactions. In essence, the economic and financial crisis became so severe because of these conditions.

Similarly to the previous accord, Basel III is comprised of three key components: minimum capital requirements, a supervisory review process, and market discipline. While the basic approach remains unchanged, the new framework is built and strengthened through the enhanced quantity and quality of own funds held by intermediaries, the introduction of counter-cyclical buffers and the discipline of rules for managing liquidity risk and the containment of leverage (a summary of contents is reported in Box 2.2).

3.3 Capital Requirements for Credit Risk

The first regulatory framework (Basel I) required banks to comply with a capital requirement against the risk of credit, expressed by the ratio between regulatory capital and the sum of the assets in and off the balance sheet, weight-adjusted in relation to the foreseeable risk of counterparty default (Birindelli and Ferretti 2006). The weighting criteria, related to the nature of the debtor, guarantees received and the possible country risk, were as follows: 0 per cent for risk assets of the sovereign entities; 20 per cent for risk activities of the institutions in the public sector, banks and investment firms; 50 per cent for loans secured by mortgages on real estate; 100 per cent for risk assets of the private sector. Banks were required to hold a minimum capital equivalent to 8 per cent compared

to their risk exposure. The constraint on capital therefore translated into a limit to the expansion of risky assets. In the event, the own funds available were below the assets at risk, banks needed to reduce the portfolio or turn to less risky investments, i.e. those with lower weighted percentages. Basically the principle remained unchanged even in subsequent accords (Basel II and III). Likewise, the bank's duty to meet the minimum 8 per cent threshold (total capital ratio of 8 per cent) rises to 10.5 per cent under Basel III by virtue of the capital conservation buffer.

At the time Basel I was issued, several critical issues had already been recognized. First of all, it featured a general tendency not to take into account the diversity of the creditworthiness of counterparty within the various categories, since banks, firms and sovereigns with different risk profiles were assigned a same percentage. Secondly, the accord did not consider the structure of credit maturity, i.e. the higher risk characterizing—ceteris paribus—long-term credits compared to the short-term credits. It did not consider the degree of asset diversification, thus applying the same capital requirement to banks with a more or less concentrated portfolio of exposures. Finally, it did not address properly the diffusion of credit risk mitigation tools, which have soared in recent years.

On the back of these flaws and the increased breadth and complexity of banking and it's background, the regulator proceeded, as mentioned, to review the legislation. This revision also served the purpose of intensifying the correspondence between the innovations introduced in the context of credit risk-management and stimulating the search for more sophisticated assessment tools, which are essential for proper competition. This in turn encouraged more evolved measurement and credit risk-management methods which—alongside more traditional analyses—could contribute to refine a bank's power of judgement.

In particular, the prudential treatment of credit risk—provided earlier by Basel II and today by Basel III—introduces alternative approaches to the calculation of capital requirements for credit risk by incorporating different levels of risk sensitivity and by requiring different degrees of sophistication. In particular, banks can choose between applying the Standardized Approach or the Internal Ratings Based Approach (IRB Approach)—if authorized by the designated authority.

As for the application of the Standardized Approach in calculating the risk-weighted exposure amounts, risk weights should be applied to all exposures. Each exposure is to be assigned to one of the exposure classes designated by the regulations (e.g. exposures to public sector entities, to institutions, to corporates, retail exposures, and exposures in default). The application of risk weights is based on the exposure class to which the exposure is assigned and to its credit quality. Credit quality may be determined by reference to the credit assessments of External Credit Assessment Institutions (ECAIs) or the credit assessments of Export Credit Agencies (ECAs).

In the case of exposures to corporations (those which are the focus of our interest), for which a credit assessment by a nominated ECAI is available, risk weight is assigned according to the ECAI's list, as summarized in Table 3.2 (Article 122 CRR 575/2013).

Exposures for which such a credit assessment is not available are assigned a 100 per cent risk weight or the risk weight of exposures to the central government of the jurisdiction in which the corporate is incorporated—whichever is the higher.

A 75 per cent risk weight is assigned to those exposures (retail exposures) complying with certain criteria such as being a natural person or persons, or a small or medium-sized enterprise. Moreover, the exposure is one of a significant number of exposures with similar characteristics, so that the risks associated with such lending are substantially reduced; the total amount owed to the institution by the obligor client or group of connected clients, cannot exceed €1 million (Article 123 CRR 575/2013).

It is evident that the measure of a lowered weighting for credit to firms falling into the retail category fosters the relationship of many smaller firms with banks.

Additionally, the introduction of the supporting factor under CRR 575/2013 (Recital 44; Article 501), aimed at further offsetting the impact of the capital requirements on loans to small and medium enterprises

Table 3.2. Exposures to corporations: risk weights

Credit quality	1	2	3	4	5	6
Risk weight (%)	20	50	100	100	150	150

(SMEs), underlines the centrality of SMEs in the European economy, given their fundamental role in creating economic growth and providing employment (among others, Signorini 2013). The recovery and future growth of the European economy largely depend on the availability of capital and funding to SMEs needed to carry out investments in new technologies and equipment, which would increase their competitiveness. The limited amount of alternative sources of funding has made SMEs even more sensitive to the impact of the banking crisis. Therefore, ensuring that they have adequate access to finance is a main consideration when setting policies. Small and medium enterprises, as already mentioned, are particularly exposed to credit constraints—because of factors linked to their size and structure—and are generally more dependent on bank lending than larger firms. Moreover, the asymmetry of information that exists between SMEs and lenders is particularly acute, and limits their ability to switch sources of funding quickly. That is why the current regulatory framework includes a provision that reduces the capital requirements for credit risk on exposures to SMEs, independently from the approach adopted by the bank (Standardized or IRB Approach). Consequently, capital requirements for loans to SMEs have been reduced compared to the requirements for other categories of loan. In particular, capital charges for exposures up to €1.5 million to SMEs are reduced through the application of a supporting factor equal to 0.7619, which neutralizes the increase of capital requirements foreseen in Basel III; 0.7619 corresponds to the ratio between the 8 per cent ratio and the ratio inclusive of the capital conservation buffer, 10.5 per cent. To this end, the definition of a SME can be found in the Commission recommendation 2003/361 of 6 May 2003 which sets out, among several criteria, the maximum annual sales of €50 million.

This matter is currently the object of debate, following the request addressed to the European Commission, and contained in the CRR 575/2013, to report to the European Parliament and Council, by January 2017, on the effectiveness of the supporting factor and the introduction of possible changes. At present the European Banking Authority (EBA) is carrying out a number of analyses to support the work of the European Commission. In July 2015 the EBA launched a call for evidence on the evolution of the lending trends and conditions for SMEs, their effective

riskiness over a full economic cycle, and the impact of capital requirements on their lending. The analyses also focused on the supporting factor for small and medium firms and the effects of such factor on lending and on the capital requirements of banks for the credit risk of such exposures (EBA 2015c; EBA BSG 2015). So far, preliminary findings strongly confirm the key role of SMEs in the European production system and their close relationship with the banking system, though the effect the supporting factor produces on the capital position of banks requires further evidence.

A more recent report released by EBA provides an update on the analyses described above (EBA 2016b). Overall, the study claims that there is no evidence that the SMEs' supporting factor has provided additional incentive for lending to SMEs compared to large corporates. Small and medium enterprises have faced the same probability of being credit constrained as large firms have in the period following the introduction of the SMEs' supporting factor. In particular, estimates based on 140 banks for a forecast of the supporting factor, as of September 2015, have not shown a significant increase of the common equity ratio. It is likely, though, the advantage could be greater for smaller intermediaries, which were not included in the study. The EBA, however, also recognizes that it may be too early to draw any strong conclusions from its analysis, given the limitations of the data available for the assessment and the relatively recent introduction of the supporting factor. Evidence provided by the financial industry indicates that the implementation may take longer in order to be fully integrated into the decision-making process of institutions. Therefore, the EBA recommends continued monitoring of the application of the supporting factor.

In other words, the non-univocal nature of the findings seems to be attributed to the recent enactment of prudential provision (1 January 2014). Moreover, its application coincided with the recession and the related increase in counterparty risk, which inevitably exerted a negative impact on banks' capital ratios. All this should be considered in a setting of stringent regulatory reforms and the stress tests European banks underwent as part of the capital strengthening process of the banking system. Therefore, concluding that the supporting factor is not effective might be premature: indeed there are hopes it will be maintained and perhaps even be converted into a permanent prudential measure (Szego 2016).

Recalling once more the standardized methodology, it is worth mentioning the controversy that has arisen around the provision of a regulatory system that ties risk weighting to opinions expressed by external agencies, since most firms (in Italy and many other European countries) turning to the banking system for financial support do not seem to represent the ideal candidates for application (Birindelli and Ferretti 2006). The small and medium dimensions of a firm are scarcely compatible with the use of external credit ratings. First of all, costs for this service are high and the use is eventually circumscribed to the attainment of credit from banks and cannot be reused elsewhere (e.g. in stock, bond and other markets). In addition, evaluations on behalf of external rating agencies are more difficult for smaller businesses which lack the internal organization, function and management to transmit additional information to what is already publicly available. Therefore, in the event the bank adopts the standard method, the credit risk weight is set as 100 per cent, which corresponds to the absence of rating. The weight assigned will be lower when the firm fulfils the conditions to benefit from the prudential treatment for retail exposures and/or from the supporting factor for SMEs.

The concerns described above have recently contributed to a review of the Standardized Approach by the Basel Committee, which is currently ongoing. In particular, in a first consultative document (BCBS 2014a), the changes proposed by the Committee included a lower reliance on external credit ratings, an enhanced risk sensitivity and a larger comparability with the IRB approach with respect to the definition and treatment of similar exposures. The proposal aimed at replacing references to external ratings with a limited number of risk drivers, which varied depending on the particular type of exposure and were selected on the basis of their simplicity, quick availability and capacity to explain risk across jurisdictions. With reference to the corporate exposure class, the key aspects were that the exposures would have no longer been risk-weighted by reference to external credit ratings, but based on the firm's revenue and leverage (for further detail see BCBS 2014a).

Given the challenges associated with identifying risk drivers to be applied globally but also reflecting the local nature of some exposures (e.g. retail credit), the Basel Committee recognized that the proposals

were at an early stage of development. The development of the consultation has thus continued with the publication of a second document in December 2015 (BCBS 2015), with which the Basel Committee has placed the Standardized Approach for credit risk within a broader review of the capital framework to balance simplicity and risk sensitivity and to promote comparability by reducing variability in risk-weighted assets across banks and jurisdictions. The December 2015 proposal differs in several ways from the previous one, as the respondents to the first consultation expressed concerns on the withdrawal of references to external credit ratings and the assignment of risk weights based on a limited number of alternative risk drivers, considering this choice unnecessary and undesirable.

Therefore, the Basel Committee has decided to reintroduce the use of ratings, in a non-mechanistic manner. In particular, the intention is to discourage banks from relying mechanistically on external ratings for the assessment of an asset's creditworthiness. Banks should be able to conduct their own assessment of the creditworthiness of their counterparties and satisfy their supervisors of that capability. As long as banks continue having capital requirements based on external ratings, they should also put in place processes to ensure that they have an appropriate understanding of the uses and limitations of external ratings. Consistent with these principles, the Basel Committee has proposed to introduce (under Pillar 1) due diligence requirements for assessing the creditworthiness of a bank's client and enhance the requirements concerning the use of external ratings, so that banks undertake their own due diligence and internal risk management instead of relying exclusively on external ratings for risk-weighting purposes (BCBS 2015).

With specific reference to corporate exposures—the only ones within the scope of the present discussion—the Basel Committee has proposed two different approaches based on whether or not a jurisdiction allows the use of external ratings for regulatory purposes. In jurisdictions that allow the use of ratings for regulatory purposes, ratings would be the main basis to determine risk weights for rated exposures although application of due diligence could result in a higher risk weight. Unrated exposures would be risk-weighted at 100 per cent, as under the current approach. Conversely, in jurisdictions in which use of external ratings for regulatory purposes is

not permitted, the risk weight for certain corporates fulfilling the definition of investment grade (that is when they have adequate capacity to meet their financial commitments, including repayments of principal and interest, in a timely manner and independently from the economic cycle and business conditions) would lower to 75 per cent. Other exposures would receive a 100 per cent risk weight. Exposures to SMEs in the corporate exposure class would receive the 85 per cent risk weight in both jurisdictions (BCBS 2015). The Basel Committee intends to assess whether such a preferential risk weight to SMEs is warranted. A lower risk weight may be justified for SMEs exposures for several reasons. Among these, the fact that the IRB approach also includes a firm size adjustment for SMEs exposures to reflect the lower asset value correlation, which results in lower risk weights for such exposures (see Sect. 3.3.1).

3.3.1 Focus on the Internal Ratings Based Approach

The diversity of banks is accounted for through the choice of alternative approaches given by regulators to calculate capital requirements for credit risk by incorporating different levels of risk sensitivity and requiring different degrees of sophistication. Despite the use of the external ratings representing an important step in significantly enhancing the risk sensitivity and prudential soundness of the credit risk rules, banks might be encouraged to move towards the more risk-sensitive approaches. To this end, an alternative to the Standardized Approach, the calculation of regulatory capital requirements for credit risk could be based on the Internal Ratings Based Approach. In an effort to create a better framework for regulating bank capital, Basel II established (within Pillar 1) the IRB Approach, which has remained unchanged under Basel III and the CRR 575/2013.

Under the IRB Approach, banks with advanced risk-management systems are allowed to determine capital requirements on the basis of internally produced risk parameters subject to specific minimum requirements. The IRB Approach therefore relies upon the bank's internal assessment of its counterparties and exposures and is consistent with the advanced credit risk measurement and management practices of the most

sophisticated banks (best practices). It is risk sensitive and complex and is aimed at accurately aligning capital requirements with credit risk.

Banks adopting the IRB Approach are subject to stringent minimum standards to ensure the comprehensiveness and integrity of their internal credit risk-assessment capabilities. It is notworthy to underline that compliance with the IRB regime requires great internal resources (Allen and Overy 2014).

Rating systems consist of the methods, processes, controls, data collection and information technology systems that support the assessment of credit risk, the assignment of exposures to rating grades or pools, and the quantification of default and loss estimates that have been developed for a certain type of exposure.

As in the case of the Standardized Approach, the IRB Approach also requires banks to break down exposures in asset classes with different credit risk profiles, among which are exposures to corporates and retail exposures. Although this classification is largely in line with the standard banking practice, it is possible that some banks follow different definitions depending on the purposes of their internal management systems and risk measurement. In any case, banks are required to apply the appropriate treatment to each exposure for the purpose of calculating the corresponding requirement. Intermediaries will have to demonstrate to authorities the adequacy and consistency of the methodology over time in assigning exposures to different classes.

Banks may apply the IRB Approach only if expressly allowed by the regulators. The permission is granted if a bank's rating and risk-management systems are sound and implemented with integrity. In general, it means that several systems, controls and corporate governance requirements must be met. For example, the bank must create within its own organization a credit risk unit responsible for the rating systems and free from undue influence. Its internal ratings and default loss estimates and associated systems and processes must be essential in the risk-management and decision-making process. Moreover, the bank must collect and store all relevant data in order to provide support to the credit risk-management process, and must determine the capital requirements resulting from its parameter estimates (Allen and Overy 2014).

Moreover, on the basis of the use test, banks should ensure that internal ratings and risk parameters used for the calculation of capital requirements are closely integrated into the day-to-day credit risk measurement and management processes and that the output of the model is considered as part of the process of credit approval, capital allocation and corporate governance (internal purposes).

Lastly, banks must foresee adverse scenarios and must have in place stress testing processes for assessing their capital adequacy, particularly for the impact of certain conditions on capital requirements. The stress test is chosen by the bank and must undergo supervisory review. It must be meaningful and include the effects of severe, yet plausible, recession scenarios.

Determination of capital requirements under the IRB Approach is linked to several fundamental aspects such as type of loss—expected or unexpected—and the determination of risk parameters as we shall see below (Birindelli and Ferretti 2006).

The *expected loss*, which represents the forecast of the average level of credit loss, is defined as the ratio of the amount expected to be lost on an exposure from the potential default of a counterparty over a one-year period to the amount outstanding at default. The *unexpected loss*, which represents the true exposure risk component, is referred to a loss above the average level of reasonably foreseeable credit losses.

Banks must ensure adequate resources for solvency to face both the scenarios; however the provenance of resources is different according to the type of loss. Expected losses, which represent a cost to the banking business, recall resources through provisioning and write-offs; in the event of a gap between a bank's provisions and expected loss, the bank's own funds must be increased or decreased depending on the sign of the deviation. Conversely, unexpected losses must be covered with capital requirements.

When referring to an entire loan portfolio, the corresponding expected loss is the sum of the expected losses related to all exposures within the portfolio. Hence, it cannot be mitigated through diversification measures but must be stabilized through portfolio expansion. In contrast, the unexpected loss of the entire portfolio can be reduced by appropriate diversification policies, such as implementation by geographical areas, industries and size of enterprise classes financed.

The calculation of the expected losses, the unexpected losses and therefore the capital requirements thus requires the determination of risk parameters (among others, Engelmann and Rauhmeier 2006). Depending upon which credit risk evaluation methods a bank adopts, it may use its internal risk models to generate all the risk parameters or a part of them. As foreseen by the IRB Approach, credit risk can be either evaluated by means of the *foundation* or the *advanced* IRB Approaches. Under the foundation approach, the first element of credit risk—i.e. the borrower's *probability of default* (Pd)—is provided by the bank as an internal estimate, whereas all other essential elements—the *loss given default* (Lgd), the *exposure at default* (Ead) and the *maturity* (M)—are determined by the supervisory authorities. In the hypothesis of advanced IRB, however, the intermediary is required to calculate the effective maturity M and provide its own estimates of the remaining variables, demonstrating that internal assessments are based on a wide range of empirical data and are consistent with the corporate experience of loss in previous years.

When referring to the individual borrower rather than to the individual product or the financing method, the Pd represents the estimate of the borrower's default rate over a one-year period. In the case of corporate exposures the estimate must be at least 3 per cent. Banks must justify their estimates with sufficient historical experience and empirical evidence.

The economic loss that the bank will suffer in the exposure at default ratio in the default time is the *loss given default* measure, which depends on the technical characteristics of the credit granted, such as the type of procedure used for the recovery, the possible presence of accessory guarantees, and debt seniority allowed.

The expected dimension of bank exposure in relation to the creditor in the moment of default is the *exposure to default*.

The product between the components above leads to the expected loss formula:

$$\text{Expected Loss} = \text{Pd} \times \text{Lgd} \times \text{Ead}$$

Hence, as evidenced by definitions above, we can see that default plays a pivotal role, as repeatedly underlined by Basel II and Basel III, and in the CRR 575/2013. Current dispositions (Article 178 CRR 575/2013) establish that a default must be considered with regard to a particular obligation in either or both of the following events: (1) the bank considers that the obligor is unlikely to pay its credit obligations, without taking actions such as realizing security; (2) the obligor is past due more than 90 days on any material credit obligation.

The exception of default has appeared as very stringent from the beginning, in particular due to the inclusion of the second condition, and therefore the fact that it has gone beyond the exclusive reference to insolvency. At the same time, approaches across the European jurisdictions have introduced a certain variety over the years, resulting in a number of practices adopted by different banks. In September 2015 the EBA launched a consultation on the matter, with the goal of enhancing harmonization of such approaches across the European prudential framework, and thus consistency in the way the European banks applied regulatory capital requirements (EBA 2015d). The need to intervene with such guidelines arises from the fact that different approaches may constitute a driver for the variability of risk estimates and capital requirements, which undermine comparability across intermediaries. In other words, it must be remembered that the definition of default affects a bank's own fund requirements under the IRB (and also the Standardized Approach—though in a different manner), by representing the basis for risk parameter estimation and therefore influencing risk weights and expected loss calculations for both default and non-default exposures. For these reasons, it is important to ensure a level playing field across European institutions. To this end, the EBA provided detailed guidance on the application of several aspects of the definition of default, including past due criteria as an indication of default, indications of unlikeliness to pay, specific aspects of the application of the definition of default for retail exposures, application of the default definition in a banking group and criteria for the return to a non-defaulted status (see EBA 2015d, for further reading).

Under the IRB Approach a further step is represented by the determination of the risk-weighted exposure amounts. To this end, the bank

must refer to specific weighted statistical and mathematical calculations provided by regulators, which link risk parameters to weighted activities and thus capital requirements.

In reference to this, it is worthwhile focusing on the prediction of the specific capital treatment for smaller companies aimed at including the size variable of borrower firms. This prediction, which is active for the Standardized Approach, finds broader application in the case of the IRB Approach, being a more advanced and risk-sensitive methodology (Birindelli and Ferretti 2006).

Accordingly, one should first consider the provisions available to the bank for the weighting function that takes into account the size of firms according to the variable of total annual sales. For exposures to companies where the total annual sales for the consolidated group of which the firm is a part is less than €50 million, banks can use an ad hoc weighting function that takes into account the total annual sales variable, with values between €5 million and €50 million (Article 153 CRR 575/2013). In other words, the IRB Approach includes a firm size adjustment for SME exposures to reflect the lower asset value correlation, which results in lower risk weights.

Banks also have the possibility of classifying exposures to SMEs such as those in retail, provided that the number of such exposures is high, their management is carried out according to a portfolio logic, and exposure is less than €1 million (Article 147 CRR 575/2013). There are specific provisions according to which retail exposures are treated by the institution in its risk management consistently over time and in a similar manner. Moreover, these should not be managed individually as exposures in the corporate exposure class are, but rather as one of a significant number of similarly managed exposures. Thus exposures of SMEs within the retail segment, therefore, have even less demanding requirements, since the high number of exposures and their unitary amount guarantee the intermediary an acceptable level of portfolio diversification, capable of lowering the potential associated losses.

Finally, consider that during 2015 the EBA initiated a review process of the IRB Approach in order to identify the main regulatory actions necessary to address the key drivers of variability in the implementation of IRB models. The proposed changes to the regulatory framework aim at

addressing the current concern about the lack of comparability of capital requirements under the IRB Approach across institutions. In particular, the EBA reiterates its stance in favour of the continued use of the IRB Approach and introduces changes aimed at harmonizing definitions and supervisory practices in the definition of default (see also EBA 2015d), the estimation of risk parameters and treatment of default assets, credit risk mitigation techniques and disclosure. In order to ensure an efficient use of resources in institutions and supervisory authorities, the EBA calls for a flexible approach in the implementation of the regulatory review. To this end, all regulatory changes are predicted to be finalized by the end of 2020 (EBA 2015a; EBA 2016a).

3.4 Internal Ratings Based Approach: Operational Features

The use of internal rating systems is being strongly encouraged for the purpose of quantifying capital requirements, yet its implementation has been gradual and in accordance with the characteristics of individual institutions. The pressure to adopt high internal processing schemes in place of more standardized systems evidences the evolutionary logic of regulation in as much as it increases the accountability of bank leadership forced to take actions in accordance with the regulatory objectives and according to a cooperative logic. The resulting consensual supervisory model therefore is built on a dialectical relationship between management and the supervisory authority, which reduces the regulatory function of authorities, although without obscuring the fundamental role of certifier for the methodologies implemented by intermediaries. However, it must be mentioned that this aspect was much stronger under Basel II, compared to Basel III, which features a greater degree of prescription.

The possibility that banks can choose from several capital requirement evaluation methodologies also has important effects on internal management processes. Indeed, in addition to allowing, *ceteris paribus*, a reduction in the capital absorbed, the use of more evolved methodologies allows a more efficient management of risks. The calculation of capital requirements using internal ratings not only satisfies the purpose of providing a

more precise measure of the relationship between risk and capital, it also encourages banks to properly assess the credit risk and refine their management in accordance with the principle of 'use' test.

The benefits arising from the implementation of such systems should however be evaluated by considering some relevant critical elements, such as the extent of the investments necessary for their planning and implementation (Birindelli and Ferretti 2010). In fact, substantial resources need to be committed to the development of new methodologies, the feasibility and adaptability studies around the individual institution, as well as to organizational adjustments and the training of staff, given the large changes that must occur in the institution's culture considered as a whole. When shifting the analysis to smaller banks, similar problems tend to get worse, as they, in the light of the opportunities for intervention in respect of SMEs, are required to develop appropriate selection and customer monitoring systems, aiming to avoid a high concentration of bad loans.

Therefore it is important in such a setting to understand the important role internal ratings play in credit decisions, pricing and risk measurement and management for internal purposes. It is also relevant to analyse to what extent the credit process can be impacted by the use of such methods, considered in a setting other than the supervisory one.

The essence of the functioning of internal ratings can be found in the transition from traditional investigation—potentially biased by the analyst's personal judgements—to a more complex information processing. More specifically, the rating system identifies all structured and documented methodologies, organizational processes and control, and methods of database organization that enables the collection and processing of relevant information for the formulation of the synthetic risk assessment of a counterparty or individual lending operation. Through the rating system, the bank assigns the debtor an internal degree of creditworthiness (rating), ordering the counterparties in relation to their risk profile, and then estimates the credit risk components. The rating thus consists of assessing, in a given time interval, all reasonably available quantitative and qualitative information, and expressing through a classification of the ordinal scale, the debtor's ability to meet contractual obligations. Each rating class is associated with a Pd. Basically the goal is to obtain an indicator that allows a graded level of risk associated with each business.

The individual probabilities of default are then placed in an appropriate range of values (master scale), sometimes corresponding to those used by the official rating agencies to allow uniformity between internal and external ratings (Birindelli and Ferretti 2010).

This is also the scope of the statistical estimating methods for expected insolvency of the borrowing rate, known as the scoring models (among others, De Laurentis and Maino 2009). Scoring models are based on the use of the firm's key financial ratios, appropriately weighted to reflect the relative importance of each of the insolvency predictions. They lead to a summary of the assessment of creditworthiness expressed as a numerical value (score) which is representative of the Pd: according to the score obtained, the debtor is classified as reliable or unreliable. The use of scoring models allows response to the mere prediction of default or, more frequently, an assessment of the degree of risk of the borrowers, by assigning each borrower a Pd or an aggregation of Pd in a finite number of discrete classes, each with its own Pd. The techniques relating to the scoring models are manifold. These include linear discriminant analysis, as well as linear regression models, logistic regression models and the latest inductive heuristic models, such as neural networks and genetic algorithms.

In the linear discriminant analysis, the first step is to identify a sample of firms encompassing both sound companies and companies close to insolvency. Then financial statements over a period of time are analysed to identify the accounting parameters explaining the purpose of discrimination between the characteristics of the two populations (creditworthy businesses and potential insolvents). Coefficients are selected for the chosen indicators, in order to set a function that, applied to two groups of companies, provides significantly different scores. On the basis of the latter, a threshold value (cut-off) is finally established, below which a company is classified as insolvent and above which it is healthy. Choosing from the possible linear combinations of explanatory variables observed (the financial indicators) and the one that maximizes the average distance between populations, we obtain the best discrimination between healthy and insolvent firms: the discriminant function tends to maximize the distance between the averages of the scores of the two groups and to minimize the dispersion of scores within each group.

Regardless of the methods used, it should be noted that the use of scoring models involves some indisputable advantages as well as a few

limitations. Its quantitative output makes information readily usable in more complex business processes; it is an objective that is easily documented and is a transparent assessment procedure. Moreover, it reduces costs and speeds up the registration processes. However, the absence of an analysis of qualitative variables (such as corporate reputation, the phase of the economic cycle, the quality of the company's management, and the prospects of the economic sector of reference) also represents its main limitation (Birindelli and Ferretti 2010).

In assigning Pd, the bank must decide what information to consider and how to process it (the statistical and quantitative approach versus the judgmental approach), based on the specific customer segment being considered.

From an operational standpoint it is common to use automated systems for the assessment of retail customers: every piece of information is assigned a weight as part of a specific statistical model. Any qualitative variables are converted to numeric values and then inserted in the statistical models that seek to interpret their relevance in terms of the default estimate by analysing the history of past insolvent loans. It may also happen that the result from the scoring system is modified by the analyst, who might not consider it accurate, because of some qualitative input that the scoring model may have failed to interpret.

As a first approximation, a bank tends to prefer the use of automated approaches when the income margins linked to the operations in certain customer segments advise that investigation and charges for individual debtor monitoring are not appropriate. In particular, their traditional use in the retail segment is linked to the homogeneity of the funding needs and conduct of credit applicants. Turning to customers segments becoming increasingly more relevant in terms of applicant's size, the income criteria are opposite to those recalled above and the reliability of statistical techniques tends to decrease because of the different counterparty characteristics. In such cases the scoring mechanisms' output is replaced, in whole or in part, by the analyses performed by banking sector experts (Altieri-Pignalosa et al. 2012).

The tendency towards process automation might also be affected by the supervisory authority's orientation where it decides to favour the objectivity of rating profiles and stability of aggregate risk measures (for

integrity purposes for credit ratings) over the operational needs of intermediaries to conduct appropriate assessments of customers.

More intensive automation methodologies may also be motivated by the bank's decisions, when, for example, the bank is interested in giving priority to the standardization of processes and cost reductions, to balance the credit autonomies in the branch offices with the rigour featured by assessments based on automatic models, as well as encouraging personnel towards sales rather than in-depth analysis of business risks. Such decisions are, with no doubt, conditioned by each bank's organizational structure, as well as the fact of belonging to or not belonging to banking groups.

In any case the structure of the credit risk-assessment process requires banks to segment customers into similar risk categories, which normally takes into account variables such as the type of counterparty (private or corporate) and their size.

In the case of our interest—businesses—the evaluation generally addresses qualitative factors (such as industrial risks, the operating environment, market positioning and structures of management, ownership and organization), quantitative aspects (the level of profitability and cash flow, the balance sheet, financial flexibility and coverage ratios), and the monitoring analysis, which highlights the relationship between the firm and the single bank and the banking system as a whole. Hence, alongside historical and prospective budget analyses, we can see the critical role taken on by investigations aiming at understanding the critical success factors that allow the firm's correct placement in the sector of reference and evaluate any inconsistencies in the setting of strategies. Just as important is the credit monitoring profile, whose level of detail is, however, favoured by the intermediary's opportunity to use specific information available on an aggregate basis (for the Italian banking system, the reference is to the Central Credit Register).

For obvious reasons, being the main domain for assessing the counterparty, the financial module tends to differ, in terms of the indicators used, according to the company's distinctive features (operational and size-wise), as well as the type of economic activity carried out. Although essential, the financial module is yet unable to provide an exhaustive and fair view of the risk of the borrower, because of the balance sheet's retrospective view, the static view of the company's operational potential, as well as the delayed availability of the information compared to the business's economic cycle.

It is therefore necessary to identify further elements of analysis, such as those relating to the company's behaviour towards the lending bank (internal monitoring information), and the banking system as a whole (external monitoring information). Internal information regards, among others, the use of credit lines (e.g., overruns and their duration) and the presence of anomalies reflected, for example, in the percentage of defaults in the commercial portfolio and arrears in payment. Similarly, the external monitoring information refers to overruns with other banks, number of lenders and percentage use of credit line at the system level.

The information provided by the monitoring module has clear advantages bound (especially in the case of internal information) to real-time availability and on a continuous basis, frequent update and predictive value (especially during credit monitoring activities), allowing the bank to take timely action on critical issues. In the absence of the balance sheet and/or qualitative data, monitoring analysis is the decisive criterion of assessment for loan granting and credit control, especially in the case of small and medium firms.

Finally, the investigation of a firm's creditworthiness delves into the economic activity carried out by the company and its structure of ownership, organization and management, in order to (1) better interpret the results of the balance sheet analysis and the changes eventually implemented and (2) to evaluate the soundness of the growth forecasts and their compatibility with the industry and the target market. The qualitative module (usually administered by means of electronic guided questionnaires) therefore satisfies the need to express an opinion about the impact that the critical success factors have on corporate risk. This case clearly evidences the professional's contribution in the evaluation of the customer's creditworthiness based upon personal experience and the presence of reliable information (Altieri-Pignalosa et al. 2012).

Box 3.1 suggests an example checklist of qualitative information that may be requested by the bank.

Intermediaries tend to ascribe a greater or lesser importance to the individual areas of analysis recalled—for example, by differentiating the structure and/or the incidence—or to find a more or less extended set of information or, still, to combine such information through statistical methodology with other more subjective information, depending on the

Box 3.1. Check-list of qualitative information

Industry field and competition:

- What is the value of your target market and of the business market share (to be evaluated in comparison to the market leader)*?*
- Current and future market trends: growth expected at three and five years; changes in prices, in the customer base; horizontal or vertical integration trends
- How many companies are in the industry (concentration/fragmentation)?
- List of major competitors and their market shares
- Probability that other products or other technologies can meet the same customer needs
- Probability that other products or new companies from different or contiguous sectors may arise

Critical success factors compared to competitors:

- The existence of economies of scale (in production, purchase or distribution)
- Existence of product differentiation (premium pricing, customer loyalty, etc.)
- Other benefits: management of excellent quality, high-quality systems, technological know-how, ease of access to a skilled workforce, good relationship with suppliers, good relationship with customers/customer groups

Ways to compete:

- Competition on price
- Competition on services
- Specializing in a niche

Breakdown of sales: (and where possible margins) by product and sales channel
Type of product/service: level of customization/standardization
Foreign sales by geographical area: special risks of these sales and currency risk

(*continued*)

Box 3.1. (continued)

Sales network: direct/indirect and incentive mechanisms
New products and markets:

- Entry date foreseen (development plan)
- Start-up costs
- Working capital requirements and planned investments

Customers and suppliers:

- Number
- List of most important costumers and weight of total revenues
- Contract terms and relationship status

Advertising and promotion: costs and marketing budgets
Expenditure on Research and Development
Organizational and managerial system:

- Organizational structure: roles and responsibilities
- Level of distinction of roles between management and the owner family
- List of board members and senior executives (responsibility and previous experience)
- Powers granted to management and degree of independent decision making
- Existence of plans and programmes to encourage generational change
- Degree of structuring of the growth objectives (strategies and policies and their degree of diffusion in the company, existence of development plans)
- Degree of use of systems development and promotion of staff
- Existence of a planning and control system

peculiarities of the examined customer—and thus, once again—on the choices made with regards to portfolio segmentation (see Sect. 5.3). This is the situation in which the manager of the relationship may override and modify the judgement on the debtor through discretionary deviations,

albeit limited and motivated ones. In other words, the final definition of the rating can be overridden by the operator, especially when considering information that cannot be standardized, such as that relating to merger and acquisition activities, capital increases, and so on. The overriding function is usually regulated within the bank, provided that application criteria are specified, such as the characteristics of the borrowers to whom it is applied, the corporate functions responsible for its activation, the application limits in terms of class rating that can be changed from the initial judgement. Indeed it is necessary that appropriate guidelines are established in order to eliminate differences in interpretation and to ensure integrity of the process, preventing the final rating assignment being influenced by the intervention of subjects with interests in conflict with the aim of correct assessment of the counterparty (Altieri-Pignalosa et al. 2012).

The estimate of counterparty risk, determined on the basis of the analysis described above, as well as a condition for granting the loan, is the input for the definition of the most appropriate loan conditions, and above all pricing. Being the function of a variety of objective parameters (including the capital allocated to cover credit risk, funding costs and operating costs), the price must then be adjusted to take into account several factors, such as customer relationship, in terms of duration and range of products and services, competitive pressures of the market served and the commercial logic followed. In formulating pricing policies, banks must deal with both risk-adjusted performance objectives and with market share and volume increase objectives.

In addition to monitoring, other uses of the risk measure link to the definition of risk-adjusted pricing indicators. The output of the rating systems is in fact integrated into capital measurement processes as to both regulatory and economic capital, thus contributing to the determination of the value creation in the pattern of the business unit objectives and in the management of performance measurement. Additional uses are associated with strategic planning, budgeting and forecasting for the quantification of risk-weighted assets, of the income statement adjustments and balance sheet assets. The risk estimates are also useful for the purposes of management reporting. The contents typically address the average extent of the expected loss, the exposure at default, the probability at default and loss given default for the various customer segments, as well as the regulatory and economic capital absorbed; reporting is generally assigned

to risk management and occurs on a quarterly basis. Another application of risk measures, although less widespread than the previous ones, is the determination of the management by objectives for credit managers, which are reward systems for commercial business units that are based on risk-return indicators bound to Pd estimation.

The different uses of ratings help understand the importance of evaluating the firm's creditworthiness across the full term of the loan. Once determined, the rating must be then systematically updated so that it can express the customer's true risk level. It is therefore necessary to obtain the credit details and/or conditions to verify possible changes in the risk profile. These are typical activities of the monitoring and review stages, encompassing the need to include changes in the economic and financial situation of the debtor that occur over time. More specifically, while monitoring identifies the set of actions taken to ensure consistency between the opinions expressed and the actual risk of the borrower of funds—requesting to take any necessary corrective measures—the review coincides with a comprehensive and thorough review of the rating assigned.

The need to consider both the initial stage and subsequent ones of the lending relationship is significantly affected by the different rationales behind related activities. Hence, the problem of distinguishing the risk measurement tools in order to enhance their use according to the specific purposes. The monitoring tool tends to distinguish itself for its strict adherence to counterparty risk and its strong sensitivity to the economic cycle, resulting in limited foresight to seize the debtor's prospects beyond the short term. The screening model must feature a broader scope, so that it can also contribute to the achievement of objectives such as those relating to the process of determining the pricing and capital allocation. The two models should therefore be inspired by different content and logic. As to monitoring, the reference is to the short-term period and basically to the monitoring information (internal and external monitoring information). The analysis, which aims to understand credit line usage trends, may allow for intervention with any necessary corrective actions and tends to reflect the current position of the borrower, neglecting the potential of the company in the medium term and thus its ability to create value. In compliance with formal organizational procedures, control activities aim to promptly ascertain the occurrence of negative signals and implement, promptly and effectively,

actions needed to prevent further issues. The most recurring tendency is to focus on the analysis of monitoring information (daily check of overruns, monthly monitoring of overdue payments, quarterly reporting of pre-existing overruns), on the loss of value of the guarantees (verification of the adequacy of the mortgages and pledges), as well as on the verification of the system-level anomalies. In this setting, often, an important role is covered by the local branches (beholders of the credit positions), since they have direct relations with customers, and are capable of quickly identifying potential fault signals.

The nearsightedness of evaluations, the instability of the estimated risk and dangers of procyclicality prevent the monitoring tool from being fully functional and able to review the decisions to grant credit, for which reference should be made to a more robust Pd that embodies a full set of information, able to fully ensure the process of direct insight into the company and its concrete opportunities for growth and profitability in the long term. It is necessary to strengthen the weight of the quantitative variables, beyond monitoring information, and enhance the contribution of those qualitative variables, which are obtainable from ongoing dialogue between the company and the manager of the credit relationship to allow greater predictive capability of the risk estimation. This is explained by the fact that quantitative information increases in relevance with the increasing Pd period of reference, and that qualitative information is crucial to the reporting of specific risk factors, essential in the assessment of small businesses. The orientation towards a more forward-looking approach to Pd calculation applies particularly during adverse economic times, during which being able to reap the long-term fundamental key factors of the businesses served is crucial, especially when these businesses are small and when the intermediary values relationships with customers as strategic, towards a profitable competitive differentiation. A similar model thus seems to be the basis for a full integration of rating systems in the decision process and in the management of banking operations, in accordance with the objective of valuing the use test principle (Altieri-Pignalosa et al. 2012).

The considerations set out above are closely allied to the characteristics of those rating models that banks can adopt—the so-called rating philosophy—namely, the point-in-time approach versus the through-the-cycle approach (among others Topp and Perl 2010; Cesaroni 2015).

The point-in-time approach aims to estimate the risk of a limited time period, typically a year. It is a system focused on the current situation of the debtor, using all the information available for both the counterparty as well as the local setting. This approach therefore leads to a Pd that is counter-cyclical and volatile, linked to macroeconomic short-run variations; therefore the Pd tends to increase during recession times and decrease during expansion periods. In contrast, the through-the-cycle approach leads to an estimate of Pd free from cyclical effects and the time horizon and is therefore broader, ideally corresponding to an economic cycle. These models use all the information on the counterparty, but not those relating to the reference framework, focusing on a long-term situation. The result is a slightly volatile rating, which tends not to adapt to economic changes. In other words, while the point-in-time approach tends to amplify the procyclicality of credit markets, the through-the-cycle one tends to mitigate it. Clearly the point-in-time model tends to be preferred by banks, since it is more closely aligned to credit risk-management techniques. In contrast, the trough-the-cycle approach tends to be preferred by authorities, monetary and supervisory, as it is capable of guaranteeing the containment of procyclical effects. However, it must be noted that no clear definition of what perspective rating system should be used is given; therefore, both approaches are permitted. In operational practice, this is reflected in the adoption of hybrid models, i.e. ones not perfectly coincident with stylized types, but assignable to intermediate situations (Cornaglia and Morone 2011).

All things considered, we must emphasize the key aspects of examining in great depth the bank-firm relationship and the gaining of awareness of the firm's true long-term growth and profitability opportunities while avoiding extreme standardization in the evaluation process. In other words, it is necessary to integrate the results of the statistical methods that enhance the analysis with qualitative information, than can be collected from a continuous dialogue between the firm and the credit relationship manager (soft information). This particularly applies in times of adverse economic conditions, when the scoring models tend to lose part of their predictive ability. The main critical aspects of credit ratings seem in fact to be attributable to the insufficient collection and modest contribution of qualitative data, not that coming from the accounting setting, and

forward-looking predictions of the borrowing firm, which are essential for enriching the risk automatically determined by statistical models.

It is important therefore to strengthen the credit risk-assessment processes, by facilitating the acquisition and processing of all information available and valuing proximity to the market of reference. This may also require changes in the organization, decision-making procedures and powers involved (Bongini et al. 2009). Nonetheless, some studies have evidenced a decline during the most acute period of the crisis in the decision-making autonomy indicator (the ratio of the amount of credit that may be granted to a SME by the branch manager and that could be awarded by general management) especially for smaller banks (e.g., Bank of Italy 2011).

Moreover, in general, as far as organizational aspects are concerned, it appears that the crisis led to a convergence of the different models of lending, reducing the pronounced differences that existed between banks in former years (Albareto et al. 2008; Del Prete et al. 2013).

The above mentioned studies also lead to similar conclusions regarding the dissemination and use of credit scoring models. The tendency of Italian banks to intensifying the development of these models from 2000 to 2006 is confirmed in subsequent periods, despite it being partially attributed to the progressive use of new information and telecommunication technologies. In particular, the Bank of Italy (2011) study surveyed 38 medium and large-sized and 360 small-sized intermediaries with reference to (1) the factors banks relied on for evaluating businesses, (2) the dissemination and use of credit scoring models and (3) the effects of the crisis on businesses assessment factors. Results demonstrated that quantitative information not included in scoring models (referring for example to the percentage use of credit lines or the frequency of default) was taken into account by nearly 90 per cent of intermediaries (88 per cent for the medium and large banks and 87.9 per cent for the small ones). Qualitative information and personal knowledge of the firms was claimed to be relevant by approximately half of the smaller banks in the sample (47.3 per cent) and 32.5 per cent of larger ones. Most divergent opinions were reported with reference to guarantees (32 per cent of the smaller banks considered them important versus 12.4 per cent of the larger institutions) and belonging to the districts (considered by only 7.5 per cent of smaller banks, while totally neglected by medium

and large banks). Statistical and quantitative methods were considered equally influential in assessing customer risk by 63.1 per cent of the major banks and by only 25.5 per cent of the smaller ones. As previously highlighted, the development of credit scoring models by Italian banks intensified in 2009, paralleling the progressive use of new information and telecommunication technologies. Moreover, while the use of credit scoring models for granting and monitoring of credit was similar in both classes, increase in the use of scoring models for pricing purposes was only appreciable for larger banks. Finally, the intermediaries' approach to strengthening the set of information on customers as a result of the financial crisis did not differ between the two classes. As of October 2008, the weight of quantitative information not included in the automatic models increased for 21.4 per cent of the larger banks and 53.9 per cent of the smaller ones; the percentages rose respectively if the information was linked to guarantees—49.5 and 73.2 per cent, respectively—and if related to qualitative data—37.8 and 35 per cent. The spread of exclusively statistical-quantitative matrix methods grew with the same intensity for both size categories reaching 26 per cent among the larger banks and 24.8 among the smaller ones.

3.5 Conclusions

In the context of continuous refinement of the regulations on alternative approaches to calculating credit risk capital requirements (both Standardized and IRB), the use of internal rating systems allows banks to adopt a more efficient method of credit risk measurement and management for internal purposes, which in turn also strengthens bank-firm relationships.

In order to emphasize such benefits, it is important that the assessment of borrowers' creditworthiness exploits all the information available, thus integrating objective results from statistical methods with soft information which can only be acquired over time through constant interaction between the loan officer and the firm's manager.

Hence, banks need to recognize the potential of the bank-firm relationship and the value of the quantity and quality of information collected and processed, which is useful for the evaluation of the firm's creditworthiness.

Approaches that lack such criteria reduce the ability of the analysis to evaluate the specific conditions of the firm, its activities, its development and its projects, as well as the overall economic situation. To date, however, the role of employees dedicated to granting credit and forming relationships with customers remains marginal, while the development of the skills of business analysts is discouraged, thus negatively affecting the ability of banks to tailor services. This severely limits the ability to acquire soft information, reduces its availability and increases the cost of credit both at individual firm level as well as system level.

This is in stark contrast with the underlying principles of relationship banking, which instead have confirmed that the establishment of closer banking relationships has facilitated access to credit for enterprises, particularly those with most promising prospects, throughout the crisis years. This result is coherent with the hypothesis that the banks most involved in the financing of companies are those able to acquire best-quality information and received greater incentives to use such information in selecting their customers.

The bank-firm relationship should thus find its momentum in the credit risk-assessment approach. In this regard, banks should consider employing internal rating initiatives, such as adopting rating systems for the optimization of credit processes (with reference, for example, to timing and pricing), developing advisory services to improve the evaluation of investment projects and real opportunities for growth and profitability of firms, adapting analysis models in relation to commercial strategies and changes to processes in customer companies, and recognizing a broader role for credit experts and organizational structures that have relationships with firms.

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4

Credit Guarantees: The Role in Bank Lending

4.1 Introduction

By definition, credit guarantees are a tool intended to attenuate the loss arising from a debtor's default and facilitate a bank's recovery of the sums loaned (e.g., Malinconico 2008). Specifically, credit guarantees cover a share of the default risk of loans by allowing the partial transfer of such risk: in the event of a debtor's default, the bank recovers the value guaranteed. The recovery of the sum loaned—or of part of it—depends on many factors, among which are (1) the type of protection, (2) the coverage level in relation to the exposure, (3) the timing and conditions of realisation—which are also factors that affect the contract conditions relating to the financial transaction—, and above all the price of the loan (e.g., De Lisa et al. 2006).

Traditionally, credit guarantees are used as important tools to ease financial constraints, especially for small and medium-sized enterprises (SMEs), which are often limited in their ability to access credit and negotiate convenient terms and conditions. Indeed smaller-sized businesses are often burdened by a scarce reliability of financial statements, short credit histories, as well as asymmetric information—and the

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entailed phenomena of moral hazard and adverse selection—and the high costs of monitoring. These factors eventually lead to severe distortions in credit allocation: due to the lack of detailed information on the quality of borrowers and on the project to finance, banks tend to not distinguish between customers on a true risk basis nor tailor credit offerings around their specific needs. Rather, they generally tend to increase mean interest rates, with the risk of precluding credit access to the most meritorious businesses and projects (Stiglitz and Weiss 1981). On the other hand, according to this same logic, less profitable businesses and projects could be put in the condition of accessing the resources needed by benefiting from an implicit aid by more virtuous enterprises (De Meza and Webb 1987).

The presence of collaterals and personal guarantees presented by the borrower upon application can eliminate such barriers and encourage the bank to customize credit contracts with different levels of guarantees and interest rates. It follows that with the most risky businesses banks tend to negotiate contracts with higher interest rates but lower guarantees, whereas with the most virtuous businesses they negotiate lower interest rates and higher guarantees (Besanko and Takor 1987; Bester 1987).

Nevertheless, it may well happen that businesses might not have suitable assets to be considered as credit guarantees, which is where public and private credit guarantee schemes come in (Busetta and Zazzaro 2012). Both types of credit guarantee schemes are intended to improve credit access. Public credit guarantee schemes are funded by regional or national governments and represent public initiatives to improve the access to finance for firms; they are prevalent in emerging economies. They consist of financial support provided by the public authorities for firms, with authorities participating in their management or granting counter-guarantees. In the case of counter-guarantees, the government takes over the risk from the guarantor, up to a certain share of the guarantee. Private credit guarantee schemes are mutual guarantee schemes, formed by borrowers sharing the debt risk and are hence characterized by the direct participation of the private sector; they are more prevalent in developed countries. Finally, there are supranational schemes, which are guided by international financial institutions.

This chapter aims to analyse the role of the credit protection tools in the relationship between banks and firms. To this end the remainder of

the chapter is organized as follows. Section 4.2 provides an overview of the main findings from the existing literature. Section 4.3 describes the current regulations on credit risk mitigation. Section 4.4 focuses on the Italian Mutual Guarantee Institutions (MGIs) describing their origins and operation (Sect. 4.4.1), their recent reform process (Sect. 4.4.2) and their perspectives (Sect. 4.4.3). Section 4.5 examines the Italian Guarantee Fund for Small and Medium Enterprises, focusing on its activity during the crisis (Sect. 4.5.1). Finally, Sect. 4.6 draws closing considerations.

4.2 Credit Guarantees: Main Findings from the Literature Review

In recent years, the role of guarantees in bank lending has become even stronger with the advent of the financial crisis. Indeed, during the crisis, credit guarantees requested by the banks to the businesses applying for financing have soared in all European countries, although with a varying degree of intensity. According to recent data, 37 per cent of euro area SMEs signal that grants and subsidized loans involving support from public sources in the form of guarantees or other interventions were crucial for their financing (ECB 2015a). Particularly in Italy, the share of secured loans has increased in response to the credit risk during the crisis going from 63 per cent in 2007 to 69 per cent in 2013. The strongest increase concerned collaterals and guarantees provided by entities managing public resources, which offer banks a higher probability of credit recovery in case of default. In short, the total value of collaterals and guarantees grew by about 10 per cent, the value of collateral increased by 16 per cent and that of guarantees provided by MGIs (Sect. 4.4) rose by 26 per cent; the value of guarantees provided by the Italian Guarantee Fund for Small and Medium Enterprises (see Sect. 4.5) and by regional finance companies expanded more than tenfold (Banca d'Italia 2014).

As already mentioned, with the crisis guarantees have taken on an ever more important role and have markedly influenced the shaping of credit features. Several studies have investigated the topic, some focusing on credit process in the current economic setting, while other on the function of credit guarantees in periods of greater stability. For example,

Meyer and Nagarajan (1996) show that credit guarantees may lead to a learning process, as borrowers benefiting from the guarantee could turn out not to be as risky and unprofitable as expected; therefore banks in future could be more willing to provide loans to such borrowers without the guarantee. Moreover, the role of credit guarantees could be influenced by the relationship banking approach, as in-depth knowledge of the debtor might reduce the problems of moral hazard; therefore the presence of guarantees could become less important according to the length of the credit relationship (Boot and Thakor 1994). According to Elsas and Krahnen (2000), instead, the guarantees would strengthen the position of the creditor and stiffen the debtor's position, conditioning future negotiations. Also, there would seem to be a negative relationship between the presence of guarantees and the size of the debtor, contrary to findings from other studies (Berger and Udell 1995; Harhoff and Korting 1998). Benevante et al. (2006) raise doubts concerning the presence of guarantees, arguing that when the guarantee covers a large share of the loan, this could reduce the bank's incentive to perform a thorough screening. Busetta and Zazzaro (2012) focus their attention on the role of MGIs describing these institutions as a wealth-pooling mechanism, allowing inefficiently rationed borrowers to access credit. The authors explain the existence of such institutions by means of the inefficiencies created by adverse selection, when borrowers do not have enough wealth to satisfy collateral requirements and induce self-selecting contracts.

Among the many studies analysing the guarantees' effects on credit features, some specifically relate to the Italian setting. Pozzolo (2004) addresses the different impact that real guarantees have on the lending relationship between banks and firms, as compared to personal guarantees. In particular, the author shows that real guarantees (physical assets or equities that the lender can sell in case of borrower default), which are often internal, are mainly used to provide priority to some creditors. Personal guarantees (contractual obligations of third parties to make payments in case of default, e.g. suretyships), which can only be external, are instead used as an incentive against moral hazard problems. Controlling for borrowers' characteristics, both real and personal guarantees reduce ex-ante risk. Calcagnini et al. (2014) analyse the impact of collateral and personal guarantees on loan interest rates during the financial crisis. The authors argue that while collateral guarantees reduce the interest rate of secured

loans, the personal guarantees produce positive effects by favouring firms' credit access. They also show that guarantees are more effective for riskier borrowers than for safer ones. Zecchini and Ventura (2009) find a relationship between public guarantee scheme, higher credit availability and lower debt costs. D'Ignazio and Menon (2013) confirm the effectiveness of a regional credit guarantee policy in improving financial conditions for firms—mostly in relation to an increase of the amount of long-term debt and a decrease in interest rates—while there is no effect on the firm's real performance. Columba et al. (2009) find that small firms affiliated to MGIs paid less for credits, compared to similar-sized firms not belonging to such institutions. Moreover, they confirm the better performance of MGIs in screening and monitoring opaque borrowers, compared to banks. Accordingly, banks would benefit from the decision of MGIs in post collateral situations, because it means that firms are better evaluated. Still in reference to the Italian setting, Busetta and Presbitero (2008) emphasize the role of MGIs in facilitating the bank-small business relationship: financing characterized by a high coverage of the guarantee of MGIs is less likely to be refused or be subject to rationing, have a faster credit approval time, lower interest rates and a higher number of guarantees requested.

Other studies focus on different countries and specific guarantee programmes as well as on additional impacts as to financing opportunities for beneficiary businesses. For example, Hancock et al. (2007) examine the impact of credit guarantees in the USA provided by a specific programme (Small Business Administration), pointing out that the beneficiary firms show an increase in output and in employment. Oh et al. (2009) study the phenomenon in Korea, focusing on firm sales, productivity, employment, investments and research and development (R&D). Their results show positive effects on sales and employment, but the credit guarantees do not contribute to the increase of firms' R&D and investments.

4.3 The Regulatory Framework

Compared to the past, the regulations foresee a wide range of tools and mitigation techniques that banks can use within the capital adequacy framework. First included by Basel II and now by Basel III, and—at a

European level—by the CRDIV/CRR (Chap. 3), the prudential regulations recognize banks have the discretion of reducing the sum designated to the coverage of credit risk on the condition there be in place appropriate credit risk mitigation techniques (among others, D'Auria and Porretta 2015). Therefore, the CRR 575/2013 disciplines the credit risk mitigation (CRM) techniques used by an institution to reduce the credit risk associated with an exposure (or exposures) that the institution continues to hold.

Among the credit risk mitigation techniques, it is possible to distinguish between funded and unfunded credit protection. With funded credit protection, the institution's reduction of credit risk on the exposure derives from the right of that institution—in the event of the counterparty's default or other specified credit events related to the counterparty—to liquidate, or to obtain transfer or appropriation of, or to retain, certain assets or amounts, or to reduce the amount of the exposure to, or to replace it with the amount of the difference between the amount of the exposure and the amount of a claim on the institution (Recital 58 CRR 575/2013). In the case of unfunded credit protection, the institution's reduction of credit risk on the exposure derives from the obligation of a third party to pay an amount in the event of the borrower's default or the occurrence of other specified credit events (Recital 59 CRR 575/2013). The rationale for unfunded protection is based on the assumption that the credit protection provider is less risky than the borrower, so transferring credit risk from the borrower to the protection provider decreases the lender's risk.

To be eligible for credit protection, the CRM techniques should fulfil a set of both general and specific conditions (Article 194 et seq. CRR 575/2013). While the specific requirements are intended to ensure a high degree of effectiveness of the guarantee, the general ones are aimed at ensuring legal certainty and the effectiveness of protection on the opening of the loan and throughout. With reference to the legal aspects, the requirements address the binding nature of the legal commitment between the parties and enforceability in court, availability of documentary evidence, the enforceability of the instrument to a third party in any relevant jurisdiction for the formation and the enforcement and, finally, the speed of implementation. Moreover, the bank should adopt a management system that

safeguards the entire process revolving around the guarantees (creation, validation, monitoring and recovery) and adopt procedures to identify the types of CRM techniques eligible, according to a comprehensive credit risk management. Lastly, requirements also demand disclosure to the market, in line with the Third Pillar provisions (Birindelli and Ferretti 2010).

Current regulatory dispositions require that the institutions recognize the funded credit protection in the calculation of the effect of credit risk mitigation only where the assets relied upon for protection are specifically included in the CRR. Moreover the assets must be sufficiently liquid and their value sufficiently stable over time to provide appropriate certainty. Institutions may recognize funded credit protection in the calculation of the effect of credit risk mitigation only where the lending institution has the right to liquidate or retain, in a timely manner, the assets from which the protection derives in the event of the default, insolvency or bankruptcy—or other credit event set out in the transaction documentation—of the obligor and, where applicable, of the custodian holding the collateral. The degree of correlation between the value of the assets relied upon for protection and the credit quality of the obligor must not be too high (Article 194 CRR 575/2013).

With specific reference to financial collateral, institutions may use specific items as eligible collateral under all approaches for the calculation of capital requirements for credit risk (Standardized and Internal Rating Based) and methods (simple and comprehensive). To name a few: cash on deposit with, or cash assimilated instruments held by, the lending institution; debt securities issued by central governments or central banks; debt securities issued by other institutions (e.g. banks); debt securities issued by other entities (e.g. corporate); equities or convertible bonds; gold (Article 197 CRR 575/2013). Operational requirements state that the collateral arrangements must be properly documented with a clear and robust procedure for the timely liquidation of collateral. An institution must employ robust procedures and processes to control the risks arising from the use of collateral (e.g. risks of failed or reduced credit protection, valuation risks, and concentration risks) and must have documented policies and practices about the types and amounts of collateral accepted. It must calculate the market value of the collateral with a minimum frequency of once every six months and whenever the institution has reason to believe there has been a significant decrease in market value.

Where the collateral is held by a third party, the institution must take reasonable steps to ensure that the third party segregates the collateral from its own assets. Moreover, an institution must have in place collateral management policies to control, monitor and report on the risks to which margin agreements expose it, its concentration risk to particular types of collateral assets, and its re-use of collateral including potential liquidity shortfalls resulting from the re-use of collateral received from counterparties (Article 207 CRR 575/2013).

An institution may choose which of two approaches (simple versus comprehensive) to follow for adjusting the risk weight exposure to take account of the financial collateral. Under the first approach, the simple method, the risk weight attaching to the collateral item is substituted for the risk weight attaching to the underlying exposure. The comprehensive method is more sophisticated and requires the institution to adjust the value of the exposure and collateral by using volatility adjustments.

Institutions cannot use both the simple method and the comprehensive method with the exception of specific cases. However, institutions cannot use such an exception selectively with the purpose of achieving reduced own-funds requirements or conducting regulatory arbitrage.

More specifically, the former method is adopted only by institutions that use the Standardized Approach. Within the extent that the exposure is covered by the market value of the collateral, the risk weight attaching to the collateral is substituted for the risk weight attaching to the exposure, but the risk weight assigned to the collateralized portion must be not less than 20 per cent (a smaller percentage is foreseen only in specific cases) (Article 222 CRR 575/2013).

Box 4.1 illustrates an example of how the simple method is applied.

Under the comprehensive method (Article 223 CRR 575/2013), which is significantly more complex than the simple method, values of both the exposure and the collateral are adjusted. The exposure is adjusted to represent possible exposure growth, as for example, when securities are lent and increase in value. The collateral is adjusted to represent potential collateral value loss due to market fluctuations. This means that for all guarantees that are not cash, the adjusted exposure is superior to the original exposure, whereas the opposite happens for the guarantee. A separate

Box 4.1 Simple method: example

Firm with external rating equal to B + (weighted factor of 150 per cent)
Overall exposure € 100,000
Establishment of collateral with debt securities and external rating equal to AA (weighted factor of 20 per cent) for a value of € 50,000
Risk-weighted assets that the bank has to cover with own funds will be equal to:
50,000 × 20/100 + 50,000 × 150/100 = 10,000 + 75,000 = 85,000
Without guarantee, the risk-weighted assets that the bank would have had to cover with own funds would have accounted for:
100,000 × 150/100 = 150,000

adjustment is made to incorporate the risk of exchange rate changes when the collateral and the exposure are in different currencies. These price and currency volatility adjustments are referred to as 'haircuts'. After both exposure value and collateral value have been adjusted, the latter is subtracted from the former leaving the exposure after collateral. The credit risk capital requirement is calculated by multiplying the exposure after collateral by the risk weight of the exposure. Within the financial collateral comprehensive method, an institution may choose how to calculate the volatility adjustments. It can either use the so-called supervisory volatility adjustments or its own estimates of the volatility adjustments.

The exposure value is obtained by applying the following formula:

$$E^* = \max\left\{0;\left[Ex\left(1+HE\right)-C\left(1-HC-HFX\right)\right]\right\}$$

where:

E^*	is the adjusted exposure value, which takes into account the effects of the reduction of credit risk and the volatility induced by the guarantee and volatility
E	is the exposure value used for calculating capital requirement
C	is the market value of the collateral
HE	is the volatility adjustment appropriate for the exposure
HC	is the volatility adjustment appropriate for the collateral
HFX	is the volatility adjustment in the exchange rate.

Moreover, one must consider that banks using the comprehensive method can use additional items as eligible collateral. Among these, the equities or convertible bonds not included in a main index but traded on a recognized exchange and the units or shares in Collective Investment Undertaking (CIUs), which meet specific conditions (Article 198 CRR 575/2013).

Lastly, additional eligibility for collateral is foreseen under the Internal Rated Based Approach (IRBA). In particular, provided that the specific requirements are fulfilled, other items are admitted, including immovable property collateral, receivables and leasing (Article 199 CRR 575/2013). The extension of eligibility criteria underlines a major operational flexibility on behalf of the supervisory authority towards the development of advanced methods for the estimate of credit risk.

Shifting to unfunded credit protection, it is envisioned that in order for a protection to be eligible, it must be a credit derivative or guarantee, which is provided by an eligible protection provider and which satisfies certain preconditions to recognition.

The CRR (Article 201) specifies who may be a recognized guarantee (or counter-guarantee) provider: governments, central banks, local authorities, multilateral developments banks, international organizations, public sector entities, financial institutions, and rated corporate entities.

The protection provided has to be direct and its scope has to be clearly defined and incontrovertible. The protection contract should not contain any clauses out of the creditor's control and particularly cannot allow any of the following (Article 213 CRR 575/2013):

- the unilateral cancellation of the protection by the provider;
- the increase of the effective cost of protection if the credit quality of exposure deteriorates;
- the non-payment in a timely manner if the borrower fails to make any payments due;
- the shortening of the maturity of the guarantee by the protection provider.

Additional requirements for guarantees are that the instruments provide the bank with the documented right to receive a timely payment from the guarantor on the qualifying default or non-payment by the counterparty.

The payment by the guarantor must not be subject to the lending institution first having to pursue the obligor. Moreover, the guarantee should cover all types of payments of the obligor in respect of the claim, or if certain types of payment are excluded from the guarantee, the bank has to adjust the value of the guarantee to reflect the limited coverage (Article 215 CRR 575/2013).

The CRR also contains additional requirements applied to sovereign and public sector counter-guarantees, as well as guarantees provided under mutual guarantee schemes (see Sect. 4.4).

If an institution adopts the Standardized Approach, the risk weight of the protection provider is substituted in place of that associated with the underlying exposure. When an institution uses the Internal Rating Based Approach, for the protected part of the exposure, the Pd and Lgd of the protection provider are attributed, whereas for the unprotected part of the exposure the Pd and Lgd of the borrower are applied.

To conclude this brief description of the main regulatory features that the guarantees must have to be eligible for credit risk mitigation purposes, we shall emphasize the impact on bank lending logic, in line with the underlying drive to improving business creditworthiness evaluation systems. By doing so, we can highlight additional opportunities for discussion between banks and businesses which rely on the different roles assigned to the guarantees (Birindelli and Ferretti 2010).

As to what banks are concerned about, the gradual improvement in the credit risk-management techniques will likely stimulate a perfecting of the risk recovery estimate models and a review of the processes of loan recovery and credit guarantee management. Such measures that rely on the improved ability of assessing the guarantee contribution may eventually lead to a markedly increased congruity between the price conditions applied and the risk incurred.

As to what businesses are concerned about, they must pay particular attention to the composition of the portfolio guarantees that they can actually use to seek access to credit. Indeed, the ability to provide solid guarantees represents a key element in the negotiation of the loan, provided that the capital savings achieved by the bank may be, as seen, influenced by the characteristics of the mitigation instruments, in addition to the method of determining the capital requirement adopted by the intermediary.

4.4 Mutual Guarantee Institutions: Focus on the Italian System

In arguing about the effects that the new prudential supervisory framework exerts on the guarantees market, we must inevitably recall the role of Mutual Guarantee Institutions (MGIs) and their traditional commitment to facilitate SMEs in establishing and developing relationships with banks. Since their establishment, MGIs have operated within the objective of responding to the needs of smaller businesses—that is, to share resources and expertise that could narrow the gap in bargaining power between firms and banking intermediaries. Their activity is carried out in the form of provision of mutual credit guarantees to member firms that can therefore benefit from a greater credit supply and/or loans at lower costs. The operation of MGIs can thus be seen in the provision of guarantees to cover losses on loans covering part or all of losses incurred by banks as a result of defaults by corporate borrowers. This is possible thanks to the establishment of ad hoc guarantee funds replenished by companies associated with MGIs (and at the same time beneficiaries of loans granted by banks) as well as by external bodies. From the intermediary's perspective, this translates into diversification of risk in its loan portfolio and represents a clear advantage, which tends to increase with decreasing overlap between a bank's clients and those provided by MGIs.

The rationale behind the activity of MGIs can ultimately be summarized by breaking down their activities into specific functions (Busetta and Zazzaro 2012; Papi et al. 2013): screening and monitoring of borrowers, supporting negotiation power of members, and collective credit guarantees.

First of all we shall recall the MGIs' role in screening and monitoring, at least in part, businesses, thus reducing costs for lender banks. This is possible by virtue of the confidential information about member companies and the more effective disciplinary action against them. The action of MGIs leverages peer-monitoring mechanisms: the interdependence between associated enterprises constitutes a common information asset to the entire membership of the group and thus facilitates reciprocal control between the parties (Costa and Costagli 2007). In addition, the presence of MGIs could represent an important signal of the good quality

of the firm. They have access to private information on the borrower and when they grant guarantees to a certain firm they reveal to the bank that the information is sound.

As mentioned, a further contribution comes from the involvement of MGIs in strengthening the bargaining power of member companies against lenders banks. These two functions—information and negotiation—which also can be separated from the activity of granting guarantees, could be carried out by operators other than MGIs, as is the case for example with external rating agencies; therefore, the provision of collective credit guarantees completes the essence of MGIs.

The importance of MGI activity is inevitably influenced by the adverse economic times, resulting in rationing of credit to borrowers with higher risk that tends to accompany years of crisis. In fact, several studies have analysed the role of MGIs as lending facilitators and counter-cyclical mitigators with reference to the recent international financial crisis. For example, Bartoli et al. (2013) provide an empirical analysis of the determinants of the probability that a borrowing firm suffers financial tension. Their results show that Italian small firms supported by MGIs also experienced minor financial tension during the peak of the crisis (2007–09). They underline the signalling role of such institutions beyond the provision of collateral. In particular, they show that the information provided by MGIs represents the key factor in the bank-firm relationship as, especially for small firms, the scoring and rating systems had become less informative during the turmoil. Again with reference to the Italian situation, Papi et al. (2013) find a positive role for MGIs in 2009–10, highlighting how they have continued to provide guarantees to small businesses, facilitating their access to credit. The authors have in fact seen an advantage to the businesses associated with MGIs over those not guaranteed by such institutions. However, it appears that MGIs have endured higher risks than in the past and accumulated a number of operational and organizational vulnerabilities. Elements of fragility need to be faced adequately, even through different orientations of public policies, in order to highlight the centrality of such operators in support of smaller companies. Similar conclusions are also drawn from Mistrulli and Vacca (2011) whose work shows that MGIs have significantly contributed to the financial support of the member companies during the financial

crisis, and that such benefits have also been reported in terms of cost of credit. However, support for firms in the worst phase of the crisis, involving higher risks, resulted in the deterioration of credit quality.

4.4.1 Origins and Operational Scope

Italian MGIs are generally structured as consortia or cooperatives providing collective credit guarantees in favour of their participants (consortia) or members (cooperatives), and other types of activities in support of the associated enterprises. Collective credit guarantee is defined as the use of resources originating, in whole or in part, from participants or members for the mutual and entrepreneurial provision of guarantees that will facilitate financing by banks and other entities in the financial system.

MGIs were established in Italy in the second half of the 1950s, based on voluntary initiatives of entrepreneurs who were having difficulties in engaging with lenders, in terms of providing guarantees and bargaining power. The origin of the Italian MGIs is common to that of other European guarantee systems (French, Spanish, German and Austrian, to name a few), but with some peculiarities. First, the Italian system features a prevalence of self-supporting business networks, different from the countries abroad, which have seen the wider establishment of public or banking-driven initiatives. Secondly, it features a greater local and closer-knit asset compared to more coordinated schemes abroad.

After their first phase of development, MGIs underwent further phases of expansion, the first of which was represented by the macroeconomic shocks and ensuing phases of credit rationing (e.g. the oil crisis of the 1970s). MGIs then continued their trend of strong growth until the 1990s with the 'uncontrolled' establishment of many new and diversified institutions heterogeneously distributed across the country. In fact, while Northern Italy yielded significantly better results in terms of total value of guarantees, number of member companies, and average size of such operators, this was not seen for Southern Italy (Columba et al. 2006). Nonetheless, the overall number of MGIs continued to be high compared to other European countries, due to both the loose mesh of legislation and networking among businesses.

Despite the spread of MGIs, the overall result was a highly fragmented system, with several critical issues. First, the operational dimensions (measured by the volumes of the guarantees issued—in terms of number and monetary value) were not sufficient to reach thresholds needed to create cost-effective structures. Secondly, the small size and lack of skills and, not least, the broader representation of entrepreneurial interests over technical expertise and experience in financial matters, negatively affected the governance and organization within MGIs.

Shifting the focus on the operational asset (Pia 2012), MGIs are built upon membership from businesses on a voluntary basis and—as previously mentioned—cover a role of mediators between banks and businesses through the provision of guarantees. In addition to providing collective credit guarantees, they also provide the expertise for negotiating loans and engaging with banks, by designating an expert who can act on behalf of the member businesses—thus creating a more favourable bargaining position compared to the otherwise weaker SMEs. In other words, they respond to the financing needs of member businesses (especially smaller ones) by providing consultancy and the necessary support to overcome the businesses' financial shortcomings. This allows businesses to benefit from easier access to credit.

In an attempt to outline the interventional scope of MGIs, we shall define the sequence of the main operational steps: businesses—exclusively within MGIs—apply for the guarantee; if the application yields a positive outcome, the MGI approves the granting of the guarantees and communicates the approval to the bank, specifying the extent of the guarantee granted, and the duration of the engagement undertaken. The firm is required to pay a membership fee and contribution to the risk fund, as well as other charges, such as investigative charges and guarantee fees.

The operational scope of MGIs is based on the assumption that the guarantee granted constitutes a stipulated obligation towards a third party creditor: the lending bank. The goal is to ensure the fulfilment of an obligation, the restitution of a loan by the member business who takes on the role as main debtor.

The guarantee provided by MGIs is formally issued by means of a written guarantee certificate delivered to the business and to the lender engaging in the agreement with MGIs. In accordance with bilateral agreements,

the MGI and the lender bank define the technical and operational aspects concerning the guarantees and the financing, including mutual rights and duties. The bank will have the right to decide on the interest rates, the technical form of loans, and the conditions and the terms in accordance with the agreement, and the MGI will guarantee the loan's reimbursement to the bank according to the methods and techniques form of guarantee expressly provided in the agreement.

The guarantee to be issued relies on a consortium fund, given by the nominal capital, and a guarantee fund (risk fund) supplied by the contributions of the member businesses and by public funding. The guarantee funds are designed to cover losses from loans covered by the mutual guarantee and are distinguished as monetary funds and surety funds. The former are supplied by contributions from members and constitute a cash reserve, partly available for use towards discretionary investments, and partly bound and invested in deposits and securities with a low risk profile (highly placed into cash). The bound part represents the proportion upon which the bank draws in case the debtor defaults. It consists of a cash deposit at one or more designated banks and takes the pledge connotation, representing collateral. The monetary fund is usually used for loans in favour of a pool of loans. As for the surety funds, they are made up by the guarantee commitments undertaken by the associated businesses, as if they were a form of personal guarantee.

The maximum credit that may be granted by the bank is a multiple of the guarantee fund value (multiplier effect). The multiplier is determined through negotiation between banks and the MGI and is a function of the size of the guarantee fund and the default probability of corporate borrowers. In the Italian context, the multiplier assumes very different values: between 11 and 20 and rarely above 30 (De Vincentis and Nicolai 2010). In recent years, the multiplier function has experienced a sharp downturn in light of changes in the prudential supervisory provisions, marked by greater caution with respect to credit risk mitigation techniques.

Also guarantees are divided into two categories, subsidiary guarantees and guarantees on first demand, which differ depending on the timing of the intervention of the MGI. For subsidiary guarantees the payment occurs once all possible recovery procedures by the bank have been attempted. For the guarantees on first demand, the MGI intervenes at

the time of default: the payment can either be for the entire amount guaranteed or for a proper advancement in relation to the estimated loss, with subsequent adjustment at the end of the executive procedures.

The guarantees can be further distinguished into co-guarantee and counter-guarantee (an example is the surety granted to the guarantor). While the former—being a direct guarantee of first level—contributes along with another guarantee to the payment of a debt in case of debtor default, the second is an indirect guarantee, second level, which allows the lending bank to request payment of the obligation to the counter-guarantor in the event of default by the borrower and the guarantor (Baravelli and Leone 2010). An example of counter-guarantee is offered by the Guarantee Fund for Small and Medium Enterprises (Sect. 4.5).

As noted above, changes introduced by prudential supervisory provisions on the capital adequacy of banks (before Basel II and Basel III today) have tightened the process of credit risk mitigation in the name, among other things, of greater caution, strongly influencing the operation of MGIs. Hence the urgent need to reform the system of MGIs, especially for those, like the Italian ones, which have been late in adopting a modernization process.

4.4.2 The On-going Reform Process

The turn of the century coincided with the beginning of an intense review period for the system regulating MGIs, regarding important changes in the area of prudential supervision as well as the key role MGIs have been covering in supporting SMEs, in terms of loans granted and more favourable contract terms. The need to maintain the pivotal role of MGIs in defining and improving bank-firm relations—especially at the local level—has essentially led the legislature to undertake an orderly review of the legal framework for the sector within the Italian law system (Conso and Varani 2015; Amaturo et al. 2014).

Indeed the legislation had long lacked a comprehensive framework for MGIs. Some first mention of MGIs dates back to the 1990s with reference to their eligibility (considered as appropriate entities in terms of size and operation) to access public financing for the development of

certain industries and the protection of certain entities. This can be seen, for example, in Law 317 of 1991 addressing the support for innovation and the development of SMEs and in Law 108 of 1996 on prevention of usury. Later in 1997, Law 266 addressed the restructuring of public funds falling within the national guarantee system, which resulted in the unification of resources to SMEs into a single fund headed by the Mediocredito Centrale, which was designated as providing liquidity to MGIs, as well as to other guarantee funds. Meanwhile, the Consolidated Law on Banking (henceforth TUB—Legislative Decree No. 385/93, in force since 1 January 1994) included, under article 155, MGIs among the actors in the financial system, and sets the requirement for MGIs to register in an appropriate section of the register provided by article 106 TUB—which however did not authorize them to perform operations still reserved to financial intermediaries.

Later, legislators became increasing aware of having to activate definitive mechanisms to modernize the MGIs system, aimed at improving the efficiency of the operators involved. This was stimulated by the concomitant implementation of Basel II provisions—which introduced, as mentioned, systems to determine risk-weighted assets anchored to specific requirements for guarantees and guarantors. The capital adequacy and reputation linked to the assumption of a financial intermediary status would have therefore allowed MGIs to access a more favourable consideration from the market (external rating agencies and banks), because of a risk-weighted assessment potentially mitigated by such status.

This led to the 2003 Framework Law 326 (D. L. 30 September 2003, n. 269, converted with modifications in the Law 24 November 2003 n. 326), which for the first time defined a clear regulatory framework for MGIs as to their institutional-asset-organizational profile.

Despite the more evolved context, the law recalls and emphasizes the definition of MGIs as consortia with external activities, those consortia (consortia of professionals, cooperative societies, limited consortia-corporations and limited companies-Ltd.) providing collective credit guarantees. The law then defines a collective credit guarantee as the use of resources originating—in whole or in part—from the participants (consortia) or members (cooperatives) for the mutual and entrepreneurial provision of guarantees in order to facilitate financing by banks and other entities in the financial sector.

The law also establishes rules on the minimum level of capital and assets, the eligible activities, the participating companies and the participation limits, as well as the prediction of three alternative types of MGIs.

This latter aspect in particular represents one of the most meaningful concepts within the framework law, according to which one of the possible options is to preserve the status of a MGI enrolled in the general register ex article 106 TUB and thus exclusively engaged in activities of collective credit guarantees and any related services in support to those same activities. However, as mentioned, the enrolment to the register does not enable the MGI to perform other operations, which remain the privilege of financial intermediaries.

Alternatively, the MGI can take on the status of supervised intermediary (MGI-Financial Intermediary), i.e. of an intermediary enrolled in the special register ex article 107 TUB and subject to a prudential supervisory regime equivalent to the one that banks are subject to. Compared to the previous type, this second MGI model is authorized to extend its scope of activities to the management of public funds, and other activities and operations—provided it is not its main activity and that it does not exceed the limit of 20 per cent of total assets; in its professional capacity, therefore, it is allowed to acquire holdings, grant any form of credit, provide payment services, etc.

Finally, the third MGI type coincides with the collective credit guarantees bank (MGI-Bank), constituted in the form of a limited cooperative, subject to the Consolidated Law on Banking and to the regulations of the Bank of Italy.

Although such form of MGI-Bank has not found application that is worthy of note, the shift to supervised intermediary model has not been configured as a mere possibility, but as a clear obligation whenever a certain size and level of activity are reached. As in fact provided by the implementing regulations (Circular of the Bank of Italy, n. 216 of 5 August 1996—9th update of 28 February 2008), the transformation was mandatory (to be performed by the end of 2009) in the case of volume of business over €75 million. Therefore, when exceeding this limit, the MGI could either conform to the more advanced model or scale down its activity.

Law 326/2003 was thus intended to pursue important goals for the MGI system. Within these, it also aimed to define a comprehensive framework to promote the development of such operators and to strengthen their

role in supporting small businesses. This helped overcome the excessive fragmentation of the system, while encouraging the dimensional growth of MGIs through business aggregation. It also gave impetus to strengthen operational and organizational structures of MGIs, putting great emphasis on the supervisory regime (Baravelli and Leone 2010; De Vincentiis and Nicolai 2012; Locatelli 2012).

This is the case of MGI-supervised intermediaries, who in their new guise began to be considered adequate to provide guarantees compliant with the eligibility requirements of the regulatory framework. For these MGIs there came important recognition by the supervisory regime, fitting to the entity of supervised intermediaries. In particular, in the case of personal guarantees, banks that adopt the Standardized Approach may apply the lowest weight to the amount guaranteed rather than the weighting factor corresponding to the final fund borrower (principle of substitution). However, this factor must be linked to the evaluation of creditworthiness attributed to the sovereign debt of the state in which the intermediary guarantor has its headquarters. As a consequence of the repeated downgrades of Italian credit (due to the sovereign credit debt crisis), exposures to supervised institutions were being applied increasing weights up to 100 per cent. This clearly nullified the benefit associated with the recognition for supervisory purposes of guarantees provided by MGI-supervised intermediaries. In addition, the supervisory authority recognizes the validity of mutual guarantee schemes that are not activated at the time of default, but are based on the advance mechanism, provided that the advance is deemed adequate to cover the default (see the text below).

On the other hand, MGIs falling within article 106 TUB can offer personal guarantees for the purpose of mitigating credit risk taken on by the banks only if counter-guaranteed by a public entity or other entity specifically foreseen. Hence, this has led to the restriction of their operations and the consequent awareness of authorities about the need to continue the system's review process.

Although the rationalization and control over MGIs falling under article 107 TUB is on-going, an evident critical issue concerns the more diffuse smaller MGIs with a limited operational scope (the ones falling within article 106 TUB). This in fact has called for new intervention in the

MGI system, with particular attention to the smaller entities, especially in light of the many interventions that have emphasized the shortcomings.

To this end, in reforming Title V of TUB, the Legislative Decree 13 August 2010 No. 141 (as amended), implementing European Directive n. 48/2008, intervenes also with reference to MGIs and introduces a sharp distinction between MGIs based on their profile: major (MGIs-Financial Intermediaries, ex article 107 TUB) versus minor (small MGIs, ex article 106 TUB).

The measure establishes new regulations for financial intermediaries, introducing new ways for their identification and some amendments. In particular, financial intermediaries are defined as entities, other than banks, allowed by Italian law to provide credit, in their professional capacity, on Italian territory. Regulation of these intermediaries is not harmonized at EU level and therefore mutual recognition at EU level is not permitted. Based on the already mentioned reform of Title V of the TUB, financial intermediaries are now authorized to provide financing in any form, including the issuing of guarantees, and are entered in a special register provided for by article 106 (the so-called Albo Unico) of the TUB (as amended by Legislative Decree No. 141/2010).

The establishment of a special register of financial intermediaries (Albo Unico) aims at overcoming the previous dualistic situation of having intermediaries registered in the special register and subjected to the prudential supervision of the Bank of Italy and intermediaries enrolled in the general register and subject only to formal control on entry requirements. Accordingly, major MGIs (those with a volume of business equal to or exceeding €150 million, as defined by D.M. the Ministry of Economics and Finance, 53, 2 April 2015), and other operators such as pawnbrokers, are required to enrol in the Albo Unico 106 TUB (as amended by Legislative Decree No. 141/2010).

The new legislation hence strengthens the framework for legislation and powers of financial intermediaries enrolled in the Albo Unico and introduces a consolidated supervisory regime over financial groups. It is worth noting that the regulation of financial groups subject to consolidated supervision has been introduced for the first time. A financial group consists of one or more financial intermediaries, non EU-banks,

financial companies and instrumental subsidiaries. The parent company of a financial group may be a financial intermediary or a financial company that directly or indirectly controls the other companies.

In order to fully implement the reform of Title V of the Consolidated Law on Banking, the review of legislation was made final with the publication of Circular 288 of 12 May 2015, in force since 11 July 2015 'Supervisory instructions for financial intermediaries', by the Bank of Italy. With reference to this document, it is noteworthy that its publication has taken shape after a lengthy and complex consultation process, which began in January 2012 and continued with a second consultation in July 2014, in consideration of the many comments received, their complexity and importance, and the entry into force of Basel III (while respecting the gradual approach, the supervisory framework on capital adequacy became partly operational in Italy on 1 January 2014—Bank of Italy, Circular 285 of 17 December 2013 'Supervisory instructions for banks').

The fundamental principles that inspired the Italian supervisory authorities in reforming the financial intermediary system can be summarized as follow: (1) safeguarding the sound and prudent management of the supervised entities; (2) safeguarding financial stability; (3) assuring neutrality of regulation in relation to other supervised institutions carrying on the same activities; (4) adaptation of the discipline according to proportionality, in order to take into account operational, dimensional and organizational complexity of intermediaries and the specific nature of the activity.

One of the key principles is therefore the affirmation of a prudential 'equivalent' supervisory regime, according to which the financial intermediaries (and thus the MGIs-Financial Intermediaries) carrying out activities and undertaking risks equal to those of the banks, must be subject—in principle—to similar rules according to the principle of proportionality. It is a regulatory approach that prevents the unregulated and uncontrolled growth of financial intermediation phenomena and is aligned with international guidelines on shadow banking—representing a fundamental evaluation tool by which international organizations (such as the International Monetary Fund) can judge the adequacy of supervisory systems of various countries.

The reform introduced by Legislative Decree 141/2010 foresaw a fairly rigid transitional regime, designed to ensure the orderly transition from the old to the new regulatory regime. Namely, requests for authorization were to be submitted by 11 October 2015 by all intermediaries enrolled in the special register under article 107 TUB (ante Legislative Decree No. 141/2010) which pursued the activity of granting loans. In reference to this case, a specific provision was issued for those MGIs registered under article 107 TUB (ante Legislative Decree No. 141/2010) that had a volume of business equal to or exceeding €75 million—the limit established by the Framework Law of 2003. The provision envisaged the possibility of enrolling in the Albo Unico even in the absence of the minimum volume of business requirement (€150 million)—provided that during the following five years they reach this minimum threshold; otherwise, the authorization is revoked and the MGI is automatically entered in the register, ex article 112 TUB (as amended by Legislative Decree No. 141/2010), for minor or small MGIs (see the following pages). The authorization application deadline for other subjects (such as intermediaries pursuant to article 106 TUB ante Legislative Decree No. 141/2010) was set at 12 February 2016. The transitional period ended on 12 May 2016; in the event that the deadline for enrolling in the Albo Unico is not met, there is the need to proceed to a liquidation of the intermediary or change of corporate object, deleting any reference to the restricted activities.

Finally, it must be emphasized that Legislative Decree No. 141/2010 does not repeal Law 269/2003, which thus continues to be a legislative source for MGIs. Likewise for the measures that were made following the crisis, with which the Italian legislature intended to identify some solutions to strengthen the capital of MGIs. The reference to this can be found in D.L. 201 of December 2011—which introduced access to the capital of MGIs by larger non-financial businesses and to public and private entities also—and D.L. 179/2012, which entitles MGIs to count as part of capital funds already granted by public bodies (such as regions and chambers of commerce), hitherto ineligible, because they are bound to specific risks and/or destinations. Altogether, these measures have been intended to provide solutions to the increasing deterioration of MGI assets, caused by the economic and financial crisis.

Going back to the distinction between minor and major MGIs set by Legislative Decree 141/2010, this was made final with the establishment of distinct registers with different supervisory regimes: minor MGIs (article 112 TUB) enrolled in a register handled by a designated body (article 112 *bis* TUB) with powers of supervision and intervention on its members, while major MGIs-Financial Intermediaries enrolled in the already mentioned Albo Unico (article 106 TUB).

While MGIs-Financial Intermediaries feature a more complex operative scope and volume of business equal to or greater than €150 million, small MGIs (under Law 326/2003) exclusively undertake activities of collective credit guarantees and similar. In order to carry out these activities, small MGIs have only minimum asset requirements (share capital or minimum consortium fund of no less than €100,000, equity of no less than €250,000) and are not required to set aside capital resources commensurate with the obligations contracted. These are MGIs with a volume of business below €150 million, and therefore minor, enrolled in the general section of the general register pursuant to article 155 TUB and only authorized to provide collective guarantees in addition to the related supporting and functional services. Supporting services embrace all those services needed to support the development of the MGI's main activity of collective credit guarantee. These include, for example, exclusive specialist consultancy to their associates on corporate finance and strictly finalized to the issuing of the mutual guarantees (either their own or of third parties). Functional services embrace ancillary services performed, such as the purchase of real estate—which must be strictly functional to the MGI's main activity—and holdings acquisition—which must be exclusively in other MGIs, collective credit guarantee banks, financial intermediaries (which, on the basis of specific agreements, issue guarantees to their members) and businesses formed for the provision of functional services. Small MGIs are barred from exercising provision of guarantees other than those mentioned—and in particular from issuing personal guarantees (as suretyships) to the public—as well as other activities reserved to financial intermediaries.

According to Legislative Decree No. 141/2010, once the designated body is formed (ex article 112 *bis* TUB), the small MGIs must register,

within a transitional period, in a new register held by the same body, formed to manage the register (ex article 112 TUB). Meanwhile, the Bank of Italy continues to hold the aforementioned former section ex article 155 TUB, without having any control. In other words, for this type of MGI, the Bank of Italy merely serves the functions of inventory and feedback concerning the requirements established by law during the phases of application. Such operators are therefore expressly exempted from the application of the provisions of Title V TUB related to financial intermediaries and their operation is not subject to a prudential supervisory regime. Once constituted, the body will be required to ensure compliance with the regulations to which MGIs are subjected. Such authority, having legal personality under private law, with organizational, statutory and financial independence, carries out any activity necessary for managing the register and determines the extent of contributions from members. Among other tasks, are the exclusion from the register of MGIs either no longer fulfilling registration requirements, having committed severe breaches of regulations, or those inactive for over a year. In summary, the authority has the power to ask the members to communicate data, information and documents, as well as to conduct inspections, while the regulatory powers continue to be held by the Bank of Italy. The authority is subject to the control of the Bank of Italy, which verifies the adequacy of the procedures implemented. In the event there are serious irregularities or administrative violations, responsibility for dissolving the management bodies of the authority is with the Ministry of Economics and Finance, following a report by the Bank of Italy.

MGIs-Financial Intermediaries, which are subject to the implementation of Title V TUB discipline, fall under the supervisory audit, disclosure and regulatory provisions dictated by the Bank of Italy for financial intermediaries (Circular 288/2015). In particular the Bank of Italy's monitoring involves performing an analysis and taking measures aimed at promptly uncovering signs of potential anomalies in technical and organizational structures and requiring that appropriate corrective actions be taken. These controls cover all aspects of the operations and focus on the coherence of organizational structures, the quality of management, the control of risks, capital adequacy with respect to any losses, and transparency and fairness towards customers. The Bank of Italy's monitoring

is done through the evaluation of documents (based on the gathering, processing and systematic analysis of statistical, accounting and administrative data) and on-site inspections at intermediaries' offices, aimed at checking the quality and accuracy of the data submitted and at gaining a better understanding of their organization and operations.

For MGIs the general provisions consider some additions and changes, which take into account the peculiarities of the organizational and operational structures of such operators. What follows are the main points dictated for MGIs (for further details on aspects common to the rest of the financial intermediaries, refer to the general discipline).

One of the key features produced by the legislation's revision is the implementation of an authorization process regulating enrolment in the Albo Unico. In fact, it is responsibility of the Bank of Italy to ensure that the 'new enrolled' financial intermediary has a sound and prudent management and has taken account of systemic risk; it also has to be suitable as a financial alternative for economic operators. Before granting authorization to an applicant, the Bank of Italy carefully evaluates whether the operator is properly structured regarding organizational and commercial aspects, with adequate qualitative and quantitative technical and human resources to manage the typical risks embedded in the activity performed.

The Bank of Italy may also consider granting authorization to MGIs organized within a limited consortia and limited companies (Ltd.).

The authorization request must be accompanied by a work programme that illustrates the development lines of the MGI's activities and the corresponding effects on the assets and the financial and economic equilibria in the start-up phase of activities. The plan must support the actual sustainability of the medium- to long-term initiatives and budgets must be based on assumptions consistent with the target market, internal organization and the progress recorded by the operator in previous years. This means providing development projections based on conservative assumptions and in line with the trend of the market and the resources available. Pricing policies must be consistent with the market trend and with the chosen risk profile, as well as the need to maintain good relationships with customers. The loan portfolio must be assessed carefully, prudently and coherently against the riskiness of the sector; the evolution of operating costs must be consistent with the organizational structure chosen and the assumptions

of operational development. Finally, adverse scenario impacts need to be simulated beforehand, so to identify appropriate corrective measures that might be needed.

The minimum capital to support the authorization is set for MGIs at €2 million, less than normally required of financial intermediaries that provide guarantees (€3 million). Regarding an MGI's own funds—the main safeguard against the risks associated with the activity performed—the Circular 288/2015 states that the computation could not include public funds with allocation constraints that are assigned to MGIs under management, and which are governed by EU regulations and managed by the regions on the basis of appropriate agreements. In any case, the Bank of Italy evaluates the inclusion of public funds among the MGI's own funds on a case by case basis to verify they are not assigned under management and that they are not bound to destination constraints.

As to the participating subjects, MGIs members must be small and medium-sized businesses in the sectors of commerce, tourism and services, craft and agriculture, as well as freelancers. Also larger businesses may be members of the MGIs as long as they are within the dimensional limits of the European Union for the purpose of facilitated interventions by the European Investment Bank, and their total does not account for over one-sixth of all of the members. The shares of each undertaking may not exceed 20 per cent of the consortium fund or the shared capital and cannot be less than €250. Public and private institutions and larger companies that cannot be part of the MGI can support the activities of the MGI through contributions and guarantees not finalized to an individual transaction. Although these subjects cannot become associates, members or beneficiaries of social activities, they can put forward their delegates to electing organs of the MGI in the manner established by the statutes, provided that the appointment of the majority remains reserved to the associated members. Finally, eligible members of MGIs may also be large non-financial businesses and public and private institutions, provided that small and medium-size member businesses hold at least one and a half of the voting power and that the appointment of members that exercise management functions and strategic supervision be reserved to the assembly.

A further specific rule for MGIs in the Circular 288/2015 concerns the provision that the authorization application also contains a statement

reporting that the minimum amount of the volume of business is equal or greater than €150 million and that the same volume of business is maintained in the six months following the end of the last financial year. In the case where a MGI's volume of business remains less than €150 million for at least three consecutive financial years, the Bank of Italy withdraws the authorization granted. It is responsibility of the MGI's legal representative to inform the Bank of Italy on the failure to maintain the minimum threshold; the notice must be accompanied by the necessary documents to prove the changed business situation and a plan for the disposal of assets, lasting no longer than 12 months.

The Circular 288/2015 clarifies that the volume of business refers to the following aggregate: cash and deposits; loans to credit institutions; loans to financial institutions; loans to customers; finance lease receivables; bonds and other fixed-income securities; stocks, shares and other variable-income securities; accrued incomes; guarantees issued; other assets and off-balance sheet operations.

Unlike small MGIs, MGIs-Financial Intermediaries perform mainly (but not exclusively) activities of collective credit guarantees and, on a residual basis, may grant other forms of financing or guarantee the issuance of debt instruments by small and medium-size member businesses just as financial intermediaries do, albeit to a limit of 20 per cent of total assets.

More specifically, the prevalence of collective credit guarantees is fulfilled when the last approved financial statement meets both of the following conditions (Circular 288/2015):

1. the amount of revenue deriving from the collective credit guarantees and related supporting and functional activities represents at least 50 per cent of the total revenues;
2. the nominal amount of the collective credit guarantees represents at least 50 per cent of the total assets.

The MGIs-Financial Intermediaries may also provide related supporting and functional activities. These are either additional activities supporting the development of the very activity pursued (e.g. the provision of business information services) and ancillary activities to those exercised (e.g. study, research and analysis in economic and financial matters, man-

agement of properties to functional use). Further services include providing information and assistance to businesses members of the consortium, or to partners not associated to the procurement and the best utilization of the financial sources, as well as the provision of services for the improvement of their financial management. The activities performed for non-member companies must be functional to the development of the MGI's prevailing activity of granting collective credit guarantees or the activity performed on an ancillary basis.

The MGI may acquire for its own functional use ownership properties that contribute to its financial activity (Circular 288/2015). For example, instrumental properties either designated (in whole or in part) to the MGI's institutional activity or for rental to employees, as well as properties acquired for debt collection which are held strictly for the period necessary to complete their cession, and any other property acquired with the aim of pursuing the corporate purpose of the acquiring company or of other members of the group. Finally, MGIs maintain unchanged the possibility of leasing real estate assets originating from past situations before enrolment in the Albo Unico.

As for the shares allowed, MGIs are allowed to take on shares in banks, financial and insurance companies up to no more than 20 per cent of the businesses in which the shares are undertaken; this means that they are excluded from holding, even indirectly, controlling interests in these subjects. Shares can be undertaken in service businesses, small and medium-sized member enterprises within the limit of 1 per cent of the participant's own funds or 3 per cent in the case of investments in industry associations. The inclusion of these limits is intended to preserve the operational specificity of MGIs.

On the other hand, clear exclusion is mentioned on issuing guarantees for the coverage of the business risk in favour of natural or legal persons who undertake investments in small and medium-sized member companies. Exclusion is mentioned also for entering into derivative contracts or possessing financial instruments which, establishing the dissociation between formal ownership and substantial ownership of shares or equity shares, entails the MGI taking on the economic risk of participating in small and medium-sized member companies. Finally, MGIs cannot use derivative financial instruments to take speculative positions (Circular 288/2015).

Beyond the above limitations, it is clear that the operational extension of the MGI-Financial Intermediaries in relation to small MGIs means they derive certain advantages, such as the opportunity to increase and diversify income sources (Conso and Varani 2015). More generally, the difference in operational scope between the two types of MGIs, which depends essentially on the different supervisory regimes, creates a market segmentation, which in perspective seems destined to become more extensive. This is because small MGIs have limited growth prospects owing to their small size and lack of capacity to diversify sources of income. The pressure characterising the market hence may create signficant competitive disavantages for small MGIs, unless they do not adopt aggregative strategies aimed at increasing the size and then access the Albo Unico.

As in the past, under the Framework Law 326/2003, the introduction of the model of MGIs ex article 107 (ante Legislative Decree No. 141/2010) seemed to portend an amelioration of market reputation and, accordingly, an increasing attractiveness of businesses and greater bargaining power towards banks by virtue of the greater stability of such type of MGIs, today the possibility of enrolling in the Albo Unico seems to strengthen the operational opportunities for MGIs-Financial Intermediaries even further. The enrolment in the Albo Unico in fact is also important to the recognition of MGI guarantees as part of the prudential supervisory provisions for banks. This is explained by the fact that according to the rules on credit risk mitigation techniques, the guarantees issued by financial intermediaries subject to a prudential supervisory regime can be considered equivalent to that of banks. Certainly this also represents a benefit for banks in terms of the risk-weighted asset calculation which, by granting loans guaranteed by MGIs (such as a credit risk mitigation instruments), can decrease the exposure to credit risk.

Finally, as already mentioned, it is worth noting that the CRR 575/2013 (Article 215) sets additional requirements for guarantees when they are provided in the context of mutual guarantee schemes or provided by or counter-guaranteed by specific entities. In such cases the eligibility is considered satisfied under specific conditions (the so-called advance mechanism). The lending institution has the right to obtain in a timely manner a provisional payment by the guarantor that meets both the following conditions: (1) it represents a robust estimate of the amount of the loss, including losses resulting from the non-payment of

interest and other types of payment which the borrower is obliged to make that the lending institution is likely to incur; (2) it is proportional to the coverage of the guarantee. Moreover, the lending institution can demonstrate to the satisfaction of the competent authorities that the effects of the guarantee (towards coverage of losses resulting from the non-payment of interest and other types of payments which the borrower is obliged to make) justify such treatment.

4.4.3 New Structures and Crisis: What Are the Current Challenges?

MGIs-Financial Intermediaries appear today to be oriented towards enriching their breadth, yet preserving their traditional vocation and exploiting all the possible synergies. Indeed, the recent legislative innovation has provided a breakthrough and boosted their role within the bank-enterprise relationship, allowing them to strengthen their services to businesses.

Such MGIs are called on to renew their way of conceiving operations, management and governance in order to better shape their activities and strategies; this may mean both intervening in their core business and defining more appropriate control and governance systems. To this end, it is necessary to develop more advanced credit risk-management techniques—including the use of standardized procedures, while keeping close contacts with businesses. The delicate trade-off must be carefully balanced in order to maintain the competitive information advantage that MGIs have always had (Sect. 4.4). At the same time they have to raise their level of efficiency. As underlined by Dell'Atti and Sylos Labini (2015), major MGIs still have room for efficiency improvement, probably linked to the need for further costs rationalization and revenue diversification. There is also the need to develop a governance structure capable of ensuring an appropriate distribution of powers, and a balanced composition of the governing bodies, in order to avoid decision-making deadlock (Di Febo 2015). Accordingly, these MGIs should avoid joint administration models—which entail the risk of decision-making deadlock—as well as disjunctive administration models—which are unable to exploit internal dialogue. Likewise, managerial and control roles should be kept distinct, avoiding for example the CEO also acting as the officer for internal audit

or compliance. Adequate governance must then be accompanied by the adoption of appropriate strategies, policies and processes for managing current and future risks to which MGIs might be exposed. Hence MGIs should set up internal control functions that are permanent, independent and implemented following the principle of proportionality (Di Febo 2015). This inevitably recalls the need for adequate professional expertise, in order to avoid undertaking new activities that might expose the MGI to a greater level of risk than it can bear.

The expansion of operational opportunities recognized by the regulatory framework must also be connected to the prudential supervisory provisions for credit risk mitigation. As already seen, it has been recognized that MGIs-Financial Intermediaries are capable of issuing guarantees in accordance with the regulatory framework. This, among other things, acknowledges a supervisory treatment 'of favour' to personal guarantees, which could result in a decrease in pledged assets (cash or securities deposited with banks)—prerequisite for the real guarantees provided by MGIs. However, as noted above, the personal guarantees that MGIs can provide to banks adopting the Standardized Approach are discouraged by the business-cycle phenomenon and the related lack of convenience to appeal to the principle of replacement, according to which a lower weighting factor can be assigned to the amount guaranteed compared to that assigned to the debtor. In fact, after the several downgradings of the Italian State's creditworthiness (caused by the sovereign debt crisis) exposures to supervised intermediaries were applied increasing weights up to 100 per cent. This clearly reduces the benefit associated with the recognition for supervisory purposes of guarantees on behalf of MGIs-Financial Intermediaries (D'Auria and Porretta 2015; Dell'Atti and Sylos Labini 2015). However, this mechanism is still valid in the case of banks using the Internal Rating Based Approach. As reported by Dell'Atti and Sylos Labini (2015), this circumstance has led some banks to adopt MGI rating models in their evaluation of the guarantors' creditworthiness, based on data such as the type of guarantee issued, the riskiness of the overall portfolio, the capital adequacy, the profitability profile and the governance and organizational structure. It is an internal model specific to rating mutual associations, which allows the bank to objectively identify the quality of the guarantor in order to target more accurately the

credit and business strategies towards the best MGIs and takes advantage of the opportunity to use the guarantee provided by the MGIs for the abatement of capital absorption (the case of Unicredit is treated by Gai and Giovannini 2013).

For banks, in essence, the need to contain the risks taken, as requested today by Basel III, makes it crucial to identify the conditions and criteria according to which MGIs can be an effective and compliant mitigation tool of capital requirements to cover credit risk. To these ends, MGIs, in addition to being of high standing, must be fully able to exploit the information advantage over the enterprises guaranteed. This means being able to provide the bank with added value in terms of information, mostly qualitative, derived from knowledge and proximity to businesses (soft information). Such a circumstance is unquestionably favoured by the largely local imprint of the activity performed by MGIs and the presence of regular and direct contact with businesses. Often the contribution of MGIs represents added value for the bank in terms of an explicit guarantee (the guarantee provided), but also of implied guarantees, inasmuch as the MGI can detect the riskiness of the recipient firm. Especially for the larger banks, it is common that MGIs represent a technology option for smaller business financing as an alternative to relationship banking, thus mitigating the phenomenon of the flight to quality in the resource reallocation process typically associated with adverse scenarios (Murro and Rotondi 2014).

The current situation therefore appears to present MGIs with a delicate dilemma. On the one hand there is the need to move towards sophisticated and more complex structures, which certainly offer sources of broader operational opportunities, but involves higher costs. On the other hand, they also need to preserve and enhance their distinctive trait of being close to the businesses they guarantee, both in terms of location and of information acquired. All this must additionally be considered in light of the economic crisis and increasing risk related to the businesses they guarantee, which puts at risk the sustainability of the guarantee system and urges the economic and financial strengthening of MGIs, as well as improvement of their governance structure. In particular the capital base is often not commensurate with the risks taken, which is also due to the widespread lack of appropriate risk-management structures. More generally, it is necessary

to proceed to the optimization of organizational structures, monitoring activity, resources allocation, utilization of services offered, and to increase the degree of sophistication of services offered. This will enable MGIs to achieve the critical mass needed to reach a satisfactory level of efficiency and profitability. In this regard, as evidenced by De Vincentiis (2015), the efforts of MGIs-Financial Intermediaries take on a more significant scope, towards a rationalization of activities which will eventually lead to increased levels of efficiency and profitability. Nevertheless, the amount of non-performing loans, doubtful exposures and enforcements does not appear appropriate to the resources and the absorption capacity of MGIs. Hence the suggestion of De Vincentiis is to '(activate) a system solution that can relieve tension on MGIs. On the other hand pretending that MGIs are purely a market entity is unrealistic, given their widespread use (...) as an instrument of economic policy.'

Below we expand on these aspects by presenting some data confirming the weaknesses of MGIs-Financial Intermediaries.

Recent data (1 March 2016) referring to the overall Italian market for MGIs reports there are 52 MGIs ex article 107 TUB ante Legislative Decree No. 14/2010; one MGI ex article 106 TUB (Albo Unico); and 451 MGIs ex article 155 TUB.

In 2014, the guarantees granted by MGIs-Financial Intermediaries decreased by 4.1 per cent over the previous year. As a result they had less recourse to second-level guarantees from the Guarantee Fund for Small and Medium Enterprises. Non-performing exposures rose to 27.8 per cent of the total exposures. The deterioration was reflected in an increase in loss provisions, which impacted on earnings; the sector made total losses of €86 million for the year. The decline in their business resulted in a reduction in capital requirements, enabling the consortia to raise their total capital ratio from 14.4 in 2013 to 15.1 per cent in 2014 (Banca d'Italia 2015a).

The opinions on the technical and organizational situation of MGIs worsened compared to 2013. The supervisory authority worked to raise awareness of the actual quality of the portfolio of guarantees issued and advised the governing bodies to strengthen the processes of initial and periodic screening of creditworthiness of the guaranteed debtors, drawing on all the information available to the financing banks. It also evaluated the effects of the deteriorating quality of credit on profitabil-

ity and capital levels, stimulating in particular the smaller intermediaries to seek collaborations and synergies to achieve greater operational efficiency and allocation (Banca d'Italia 2015b).

The trends reported above are also supported by a broader analysis over the 2012–14 period (Zeloni 2015), which shows that the sector of major MGIs has a cost income ratio of 82 per cent (for banks this indicator is equal to 62 per cent); it is an indicator of efficiency, measured as non-interest expense to gross revenues, where higher values of the ratio indicate lower efficiency. Profitability continues to be affected by the excessive weight of the costs of the structure, and in some cases operating costs may even exceed earnings from the intermediation activities. The unsatisfactory results in terms of rationalization of operating costs keep staff expenses high. This suggests the urgent need for the sector to rationalize the structures that have been negatively affected by past tendencies to aggregation that have led to heavy non-efficient structures. The same survey provides discouraging results as far as risks are concerned, since these have increased over the years due to the increased number of impaired loans. The ability to maintain appropriate measures in this respect shows a low coverage ratio (provisions in relation to the corresponding gross exposure); it was less than 36 per cent for half of MGIs.

Turning to small (or minor) MGIs, the Bank of Italy carried on limited assessments within the supervision and intervention powers it had been designated by the legislation. It checked the status of many consortia to verify that they still fulfilled the conditions to be on the list. In the event more serious irregularities were detected (sometimes reported by the Financial Police), and the Bank of Italy has even issued extraordinary measures such as the cancellation of two MGIs from the register.

Monitoring activities on small MGIs have uncovered an ever-growing number of illegal guarantees issued to private and public entities—which violates the boundaries of such institutions' operational scope and the restrictions in favour of other subjects (banks, insurance companies and finance companies); often the enforcement of such guarantees is fruitless. The Bank of Italy counteracts the phenomenon by starting the cancellation procedures of such entities from the registers and providing feedback on the numerous claims and enquiries on individual institutions (Banca d'Italia 2015b).

4.5 The Italian Guarantee Fund for Small and Medium Enterprises: Operational Aspects

The upgrading of the mutual guarantee system needs to be traced back to public measures, one of which is the support provided by the Italian Guarantee Fund for Small and Medium Enterprises. Constituted as Law 662/1996 on 'Measures to rationalize public finances', the Guarantee Fund for Small and Medium Enterprises is powered by public funds and managed by Medio Credito Centrale s.p.a. Operating since 2000, the Fund is intended to guarantee a portion of bank loans granted to micro, small and medium-sized enterprises.

The Fund, which operates in all productive sectors (recently extended to artisan businesses), can be accessed by any financial transactions aimed at business activities. Among the financial transactions that fall within this category are medium and long-term loans, participating loans, equity operations, the underwriting of mini-bonds and advances of receivables from the Public Administration.

The Fund's intervention is ultimately safeguarded by state guarantee, which involves the maximum mitigation of credit risk, eliminating the related capital requirement of banks (zero weighting). With the application to the Guarantee Fund, an enterprise can access the loans granted by banks covering up to 80 per cent of the loan, with the state guarantee and a credit line of up to €2,500,000. In other words, assistance from the Fund facilitates access to credit, as the attenuation of the burden of credit risk on banks makes the firm more appealing to banks. The firm's prerequisites to credit access are eased thanks to zero weighting on the exposures secured deriving from the state's guarantee of fund coverage. This more favourable standing abates the costs associated with the operation and allows the bank to enjoy better contractual conditions on the loan granted to the firm.

The Fund's action is embodied in the provision of a direct guarantee, granted directly to banks—even when they are leaders in pool operations—and intermediaries that provide financing. The guarantee is known as payable on first demand, and is explicit, unconditional, irrevocable and covers the exposure amount of lenders towards business—

within the limit's maximum guaranteed amount (80 per cent). All small and medium-sized businesses in Italy, except for those in Tuscany and Lazio, may qualify as beneficiaries.

Another type of support offered by the Fund consists of the counter-guarantee, as a form of re-insurance of risk granted in favour of first-level guarantors, including MGIs and regional public funds. By means of this instrument, the Fund intervenes in covering the amount guaranteed by the first-level guarantor. The counter-guarantee may either be upon first demand or subsidiary. The former applies when the guarantee provided by MGIs has the characteristics of a direct guarantee, and is provided under the same conditions; moreover the agreements with the banks must make explicit reference to the regulations of the Fund. The guarantee is upon first demand because the first-level guarantor is jointly liable with its assets. In case of default by a MGI, the sum may be collected from the bank being guaranteed. The subsidiary counter-guarantee, on the other hand, is enforceable—unless it is an advance payment mechanism—only after the conclusion of the recovery procedures. In this case, the Fund only responds to the first-level guarantor and within the limits of the sums paid by these outright.

Finally, the Fund may intervene in the form of a co-guarantee, granted to MGIs and to other guarantee funds. By means of the co-guarantee, the Fund directly guarantees the financing party (like the direct guarantee), but pro rata, along with another guarantee fund. Although not specifically governed, the arrangements for the direct guarantees apply. The co-guarantee businesses of Tuscany and Lazio are excluded.

Access to the Guarantee Fund by businesses is subordinate to meeting specific requirements. First is being a micro, small or medium-sized enterprise (individually or forming cooperatives) in good economic and financial standing—and meeting current size parameters established by the Community regulations on aid to SMEs, at the date of submitting the application to the Fund. Specifically, as defined in the decree of the Ministry of Industry of 18 April 2005 and the Recommendation of the European Commission dated 6 May 2003, micro-enterprises are those enterprises (including any associated and/or affiliated businesses) with fewer than 10 employees and an annual turnover or total annual balance not exceeding €2 million. Small enterprises are those enterprises

(including any associated and/or affiliated businesses) with fewer than 50 employees and an annual turnover or total annual balance not exceeding €10 million. Medium enterprises are those enterprises (including any associated and/or affiliated businesses) with fewer than 250 employees and an annual turnover not exceeding €50 million, or a total annual balance not exceeding €43 million.

All business sectors are eligible for application, except for a few cases identified by the European Union—such as the automobile industry, shipbuilding, synthetic fibres and the like—which fall under a different category of restrictions. For example, businesses in the agriculture sector can only benefit from the counter-guarantee applying through a MGI specifically operating in the agricultural, food and fisheries product sectors.

As to the eligibility requirements for accessing the Fund, these vary based on the sector and the accounting system of the beneficiary firm.

Businesses are evaluated using scoring models, based on budgetary indicators, each of which is assigned a score in relation to a given reference value. Each indicator accounts for a specific score that corresponds to a different level. The evaluation of the last two budgets yields two levels which combined together produce the evaluation range: from the best, to mid-range, to worst.

The higher-scoring businesses are presented with a positive proposal to the Fund's Management Committee, which is responsible for the evaluation of operations. The businesses that score in the middle range are evaluated case by case on the basis, for example, of the most recently updated budgetary situation, a minimum three-year provisional budget, or investment projects, market prospects, growth and so on. The companies scoring lowest are presented to the Committee with a negative proposal.

Start-up businesses—that is, businesses that have been constituted (or have begun their activity) no later than three years before the date of admission to the Fund—cannot be usefully assessed on the basis of the last two approved balance-sheets. Therefore eligibility is bound to the condition that the operation is aimed towards an investment and that equity covers by at least 25 per cent the investment programme. The evaluation of these businesses requires the application be accompanied by a complete business plan, and a minimum three-year provisional budget.

In the event the business has specific needs or financial transaction requirements, there are procedures that allow priority in the evaluation of access to the Fund and a quick resolution by the Management Committee. This happens, for example, in cases concerning operations of limited amounts. These are basic operations not exceeding €20,000 (which on fulfilment of certain conditions can be increased to a maximum of €100,000), not backed by other collateral (real, banking and insurance). In such cases, for admission to the Fund, the requesting parties may certify the creditworthiness of the recipient undertaking credit, as long as it has a useful operation in at least one of the last two budgets approved and does not have a loss in the last exercise of over 10 per cent of turnover.

4.5.1 Crisis Related Considerations

Over the past few years, the continuing crisis and the connected anti-crisis measures implemented by the Italian Government have led to a progressive empowerment of the Guarantee Fund, allowing for example the Fund to expand its operations to businesses that were previously excluded and to increase its resources. In particular, by the end of 2008 some measures had been implemented to ensure the Fund's operational continuity and strengthening, such as granting the state's guarantee for amounts guaranteed by the Fund, which allowed banks to apply more favourable contract terms to businesses (zero weighting). Among the most relevant measures, we shall recall some of those mentioned above, such as the extension of the Fund's action to artisan businesses, which allowed the consolidation of a single instrument for all types of businesses, and a strengthening of its mutualistic characteristics. Another measure was that of increasing the maximum amount guaranteed to €2.5 million and a review of the companies' access criteria. Regarding this last measure, new reference values were set for establishing new economic and financial indicators that could distinguish companies that were economically and financially healthy, in spite of negative economic trends. Specific evaluation criteria were also defined for businesses operating by commission or by project, which could integrate historical budget data with an evaluation of the initiative to be pursued. More recently, the Fund's scope further extended to the

underwriting of mini-bonds and the inclusion of professionals registered within professional rosters and those adhering to professional associations among the possible beneficiaries—within a maximum absorption limit of no more than to 5 per cent of resources available.

In essence, starting from 2008, the Guarantee Fund became one of the instruments implemented by the Italian government to re-launch the economy, which had a boosting effect on the recovery of many businesses in a particularly difficult economic situation like the present one. This is particularly true for smaller companies, struggling with a general deterioration of economic performance and increasing difficulties in obtaining credit.

In its over 16 years of activity, the Fund has therefore proven to be a valid incentive tool, appreciated by businesses, the banking system and MGIs. As claimed by the latest Fund report, this has had a positive effect on the dynamics of its activity (Fondo di garanzia per le PMI 2016). Indeed figures for 2015 confirm an increase in applications equal to 17 per cent compared to 2014, with 105,180 requests (89,904 in 2014). The total number of applicants was 484—an increase of 9.8 per cent over the previous year (441). Among the type of applicants, an increase has been seen in particular for the banks category (10.3 per cent), which represented 68.8 per cent (333 operators) of the total of applicants; following were then MGIs and other guarantee funds which increased by 4.8 per cent and represented 27.1 per cent (131 operators) of the total. Worthy of note are also the four asset management companies who have applied for admission in support of six mini-bond underwritings.

In 2015, the applications approved were 102,607 against the 86,231 in 2014, an increase of 19 per cent. In view of the over 102,000 approved operations, the number of guaranteed companies amounted to 66,517, an increase of 18.8 per cent.

With reference to the types of interventions undertaken by the Fund, the most frequent in 2015 was represented by direct guarantees (52.5 per cent of the total, with 53,910 operations), followed by counter-guarantees (47.3 per cent of the total, with 48,573 operations) and co-guarantees (124 operations). By comparison with 2014, there was an increase for direct guarantee (+33.7 per cent) and counter-guarantee (+6.1 per cent). The counter-guarantees on first demand amounted to 46,376 units (95.5 per cent of the total), while 2,197 were subsidiary (4.5 per cent of the total).

The monthly trend shows that the counter-guarantee has an uneven trend, but in the second half, except for the month of September, there are positive changes. The direct guarantee shows instead a steady growth, with increases in all months of the previous year with June being the exception.

Most businesses turned to the guarantee due to the need for liquidity (85,213 operations, representing 83 per cent of the total), while the operations aimed at investments amounted only to 17 per cent for 17,394 operations (in 2014, 15 per cent of the total for 12,907 operations). The majority of applications accepted were for medium- to long-term operations (53.7 per cent of the total), registering a growth of 30 per cent (55,095 operations in 2015 versus 42,376 in 2014); short-term operations featured a more contained growth equal to 8.3 per cent (46.3 per cent of the total); for further detail see Fondo di garanzia per le PMI (2016).

The geographical distribution of beneficiaries was primarily concentrated in the North (48,815 companies accounting for 47.6 per cent of the total) and in the South (28,564 companies accounting for 27.8 per cent of the total). However, compared to 2014, there was a general increase across the country (the central areas, 35.6 per cent; the South, 20.4 per cent; and the North, 11.2 per cent). Likewise the distribution of financing approved, which recorded positive variations across all the areas, increased by 26.5 per cent in the South, by 21.6 per cent in the centre, and by 12.1 per cent in the North.

As to the size of businesses, most operations accepted concerned micro-size businesses, which accounted for 59.2 per cent of the total (60,759 applications accepted), followed by small-size ones with 32,393 applications (31.6 per cent of the total), and medium-size ones with 9,455 applications (9.2 per cent of the total). The micro-size companies showed the greatest increase over the previous year (+23.7 per cent), followed by small (+15.6 per cent), and medium-sized (+4.2 per cent). As for the loans granted, the small companies have the highest value (€6.7 billion).

Finally, as to the sector of applicants and accepted applications, industry represented the highest percentage (46,587 operations, representing 45.4 per cent of the total), followed by trade (39,354 operations, representing 38.4 per cent of the total) and services (16,267 operations, representing 15.9 per cent of the total). Compared with figures for 2014,

all sectors reported an increase (trade +20.7 per cent; industry +18.4 per cent; and services +15.9 per cent). Industry shows the highest levels of funding received (€ 7.91 billion), followed by trade (€ 4.97 billion) and services (€ 2.13 billion).

As to the incidence of rejected applications in 2015 compared to the previous year, figures decreased from 2.1 per cent to 1 per cent. Among the primary reasons for rejection were: insufficient cash flow to guarantee coverage for the payment (28.2 per cent); low profitability (20.1 per cent); and high current liabilities (9.6 per cent). Secondary reasons were, to name a few, a drop in sales, the imbalance between the financing and business turnover, low ratio of operating margin and sales volume, and low capitalization (Fondo di garanzia per le PMI 2016).

The operational liveliness recorded by the Fund over the years inevitably points to the need for the Fund's refinement (Baione 2016) in order to make it more effective, while reducing the absorption of public resources (equal volumes of secured loans).

Consistent with the need to abandon the 'contingency' type management which has characterized the last years of the crisis, the reform proposals will review the set-up of the Guarantee Fund in order to radically modify the framework to provide more support to enterprises with a poor credit rating, for which the supply of credit is rationed. Indeed, many would question the purpose of even involving the Fund in supporting companies that are able to access funding independently and would agree that this should be the starting point for renewing the Fund as a more modern and effective tool against credit rationing—letting the best companies on the market achieve financial growth.

The idea is therefore to define the coverage of the Fund by foreseeing broader measures for businesses with higher risk, in order to keep public support for firms featuring a higher degree of risk and consequently more exposure to rationing by the credit market—provided, however, they are economically healthy. Hence, in order to achieve this objective, it is necessary (among other things) that the Fund adopts an internal rating model for evaluating the businesses' creditworthiness to replace the current economic and financial evaluation system based on credit scoring.

The shift to a model of internal rating—if accompanied by a fixed threshold of probability of default for the access to the guarantee of

approximately 9–10 per cent—would significantly broaden the pool of businesses that could potentially benefit from the Fund. Such a threshold would stay, in fact, at a higher level compared to the Pd values commonly accepted by banks: over 90 per cent of SMEs financed by banks that adopt IRB methods present a Pd below such a threshold. The Fund's move to the internal rating model would hence foster support to businesses barely qualifying for bank lending (though healthy), but that could access bank credit thanks to public guarantee.

In closing, the transition towards internal rating models would seem to allow greater efficiency in the management of public resources; other benefits can derive from the opportunity to offer more effective tools for monitoring and supervising the risks assumed by the Fund in carrying out its activities (Baione 2016).

4.6 Conclusions

Traditionally, credit guarantees are used as important tools to ease financial constraints. In recent years, the role of guarantees in bank lending has become even stronger with the advent of the financial and economic crisis and the introduction of prudential regulations (Basel II and III), which recognize that banks can use credit risk mitigation techniques to calculate the capital requirements for credit risk, provided they are compliant with the eligibility standards of the regulatory framework.

In this context, it is important to mention the role of MGIs and their traditional commitment in facilitating enterprises, particularly small and medium-sized ones, in establishing and developing relationships with banks. Market and regulatory changes have strongly influenced the operation of MGIs and have underlined the urgent need to reform the MGI system, especially for those countries, like Italy, in which modernization has been extremely slow.

Hence, in Italy, the turn of the century coincided with the beginning of an intense review period for the system regulating MGIs in order to maintain their pivotal role in defining and improving bank-firm relationships, especially at the local level. The review of the legal framework for the sector within the Italian law system has also led to two models of

MGIs: the major (MGI-Financial Intermediaries) and the minor MGIs. The difference in operational scope between the two types of MGIs depends essentially on the different supervisory regime, which tends to create a market segmentation and which in perspective seems destined to become more extensive. This is because small MGIs have limited growth prospects owing to their size and lack of capacity to diversify sources of income. On the other hand, major MGIs appear to be oriented to enriching their operational breadth, even if they are required to renew their operations, management and governance, in order to better shape their activities and strategies. The current situation is therefore a delicate dilemma for MGIs, particularly the major ones. On the one hand, there is the need to move towards a sophisticated and more complex structure, which certainly offers broader operational opportunities, but has higher costs. On the other hand, they also need to preserve and enhance their distinctive trait of being close to the businesses that they guarantee, both in terms of location and of information acquired. All this must also be considered in light of the economic crisis and increasing risk related to the businesses they guarantee, which puts at risk the sustainability of the guarantee system and urges the economic and financial strengthening of MGIs, as well as the improvement of their governance structure.

To this end it is important to underline the positive boost that may derive from the support provided by the Guarantee Fund for Small and Medium Enterprises. In over 16 years of activity, the Fund has proven to be a valid incentive tool, appreciated by businesses, banks and MGIs. At present, however, it needs to be reformed, in order to make it more effective. Consistently with the need to abandon the 'contingency' type management, which has characterized the last years of the crisis, the reform proposals will review the set-up of the Guarantee Fund in order to radically modify the framework to provide more support to enterprises with a poor credit rating, for which the supply of credit is rationed. Indeed, many would question even involving the Fund in supporting companies that are able to access funding independently and would agree that this should be the starting point for renewing the Fund as a more modern and effective tool against credit rationing—allowing the best companies on the market to grow. This could further help an even greater integration between banks, firms and financial market.

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5

Banks, Firms and Financial Markets

5.1 Introduction

One of the classic topics of economic debate is the array of valuable services offered by banks to their corporate costumers (e.g. financial support and consulting services) and the effects this has in consolidating the bank-firm partnership.

Indeed, as claimed by a number of Italian banks in a recent survey, a key factor for success for the evolution of such banking model appears to be the orientation of banks towards providing services in favour of small businesses (Bajetta and Munari 2014). In particular, the improvement of the model would be linked to the implementation of stronger customer relationship management, especially in terms of consulting activities.

Such aspects, to date—however—take on an entirely new relevance compared to the past, when considering the current context of important changes (first of all market and regulatory changes) calling for a renewal of bank-firm relationships. In fact, if in the past there was evidence of phenomena, such as the tightening of competitive pressures and increased stratification and specialization of the financial system, that

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required banks to review their market penetration strategies (through the development of a wide and diverse range of offers), today the scenario has become even more complex and stringent with the financial crisis. As a consequence of the financial revision accompanying the financial crisis, banks became subject to stricter capital, liquidity and leverage ratios; furthermore, the low-return environment tightens bank margins, which are negatively affected by the progressive deterioration of credit. This forces banks to seek new ways to regain acceptable profit levels and exploit all possible paths, such as expanding the range of services to businesses and guiding businesses to alternative and complementary forms of financing. This is favourably welcomed by businesses who need to mitigate their historical dependence on banks' financing, and underlines the immediate urgency for more concrete and diversified funding sources.

This chapter aims to analyse the opportunities of deeper integration between banks, firms and financial markets in order to develop alternative sources of financing for businesses. To this end, the remainder of the chapter is organized as follows. Section 5.2 examines why banks may find advantages in offering credit and other financial services. Section 5.3 describes some of the most relevant initiatives undertaken both at international (Sects. 5.3.1 and 5.3.2) and country (Sects. 5.3.3 and 5.3.4) levels, aimed at enhancing the financial market structures. Finally, Sect. 5.4 concludes.

5.2 Beyond Credit: Rationale and Actions

Although mostly applicable to specific financial systems—such as the Italian one—the considerations about the need for a more diversified financial system actually apply to the much broader European context. Indeed, compared with more diversified financial systems (e.g., US and UK markets), the euro area financial systems feature strong dominance of bank lending, which is believed to be responsible for the slower recovery of the relative economy. During recessions, market-based financial systems seem in fact to be more resilient than bank-centric systems, especially when the reduced economic activity and a financial crisis develop in parallel. Furthermore, within more advanced economies, capital markets are comparatively more important as they increase investors' port-

folio choices and risk-management techniques and extend the range of financing instruments for borrowers (Visco 2015b).

Given the widespread dependence of small and medium-sized enterprises (SMEs) on banks' lending across the euro area—especially in Italy—the current market adjustments and prudential regulatory processes have, and will continue to have, a marked impact on the financial support to the real economy. In fact, the regulatory pressure, aimed at building a safer financial sector, eventually led banks to adjust their business models with corresponding impacts on lending activity. As already mentioned, the latter is also strongly influenced by the weakness of banks regarding income level: only by restoring adequate profitability banks will be able to generate capital internally and thus enhance their financial support for enterprises.

All considered, it is evident that interventions are needed to encourage real diversification opportunities for alternative sources of financing for enterprises, in order to prevent the financial system (considered as a whole) in failing to provide enterprises with the resources necessary to their growth. Moreover, the adjustment costs taken on by banks (primarily those relating to compliance with the regulations), although low compared to expected benefits in the medium to long-term, should be carefully considered, in order to avoid that the supervisory choices could result in procyclical behaviour by banks, hence delaying recovery.

Thus looking at a medium-term perspective, it is necessary to loosen the excessive reliance enterprises have on banks' lending and offer them diversified sources of financing. Accordingly, this will help the building of a stronger and safer financial system and allow the most foresighted banks to support and orient their corporate customers among more specialized and diversified funding sources, reshaping a partnership role with them.

What we see happening is a drive to review the content of bank offerings, which (although maintaining the key role of lending) aims to raise new paradigms according to which banks can draw concrete benefits from a more complex and diverse financial system. They could indeed become effective vehicles of information about financial innovations, as they are gradually introduced in the field of corporate finance; they could also strengthen the role of consultant and supporter for businesses in gaining access to direct financing channels, with obvious advantages to income levels.

Yet lending maintains its central role: banks will likely remain the primary source of credit, especially for SMEs. In this regard, as already noted however, the role of lender should be given fresh impetus through the best procedures and the content of the credit risk-assessment processes (Chap. 3). This would avoid the increase of non-performing loans (NPLs) on bank balance sheets deriving from the difficulties encountered by businesses in adverse economic times, which contribute to the tightening of credit supply criteria by the banks. The high incidence of NPLs in some systems, such as Italian one, is in fact responsible for weakening banks' balance sheets and impairing their lending capacity.

It must be underlined though that the latest available figures for Italy show a slight improvement of NPLs (Banca d'Italia 2016). As a result of the gradual improvement in economic activity, in the third quarter of 2015 the flow of new NPLs fell as a ratio over outstanding loans to 3.6 per cent (3.8 per cent in the previous quarter); particularly for firms, the ratio fell to 5.4 per cent from 6.1 per cent. The flow of new bad debts fell more strongly to 2.4 per cent from 2.9 per cent of the outstanding loans, especially for firms (down 0.8 percentage points to 3.7 per cent). The improvement will likely continue through 2016 as a result of the expected strengthening of the cyclical recovery.

Certainly, it will take time to eliminate the accumulated stock of NPLs—responsible (among other things) for the low market evaluation of banks and the higher cost of funding (Visco 2016). To this end, the issue of promoting the development of a private market for NPLs has been long discussed by many parties (Sect. 1.4). Other measures, however, have already been implemented, such as the revision of the tax treatment for losses on loans and the acceleration and simplification of bankruptcy and executive procedures introduced by Decree-Law 83/2015 (Barbagallo 2016). Other interventions could be introduced with reference to bankruptcy and to the organization of court procedures to reduce further recovery time, which is much longer compared to other European countries and represents a serious competitive disadvantage for Italian banks. Also, the Ministry of Economy and Finance have reached an agreement with the European Commission on a government guarantee scheme for senior debt resulting from the securitization of NPLs. The

agreement, which is structured to avoid public intervention being considered as state aid, marks a step forward in the creation of a secondary market for NPLs. The easier availability of resources to finance the purchase of these loans allows quicker sales and can contribute to a significant increase in sale prices. Together with possible and further steps to shorten the recovery time of credits, the guarantee scheme will facilitate the rebalancing of Italian banks' balance sheets and their ability to finance the real economy (Barbagallo 2016).

Box 5.1 summarizes the government guarantee scheme for securitization of NPLs.

It is clear that the full efficacy of the recalled measures must be evaluated over time. Meantime, as a consequence of high levels of NPLs, for example, bank credit in the euro area remains subdued despite the provision of monetary policy measures, aimed at supporting financing to the real economy

Box 5.1 Public Guarantee Scheme for the securitization of non-performing loans (Barbagallo 2016)

The Public Guarantee Scheme for the securitization of NPLs, introduced by Decree-Law 18/2016, provides for the issue of a state guarantee on the senior tranches of securitization of NPLs transferred from banks to vehicle companies ex-Law 130/1999. The guarantee may be issued provided that the senior class has a rating of at least investment grade and will not be effective until the originator bank has not transferred to the market an amount of junior debt and any mezzanine securities sufficient to allow the de-recognition of loans transferred from the bank's balance sheet. The state guarantee is remunerated by commissions that provide a growing mechanism after the third year, to provide a strong incentive to pay back the securities in the shortest possible time.

In spite of the collateral received, the state collects periodic commissions made up by a fixed portion and an additional penalty due in case the senior tranche amortization goes beyond the third year. The fee's measure is in line with the average spread of specific baskets of CDS (credit default swaps) differentiated according to the rating assigned to the senior tranche guaranteed for maturities of three, five and seven years. For the fixed commission, reference is made to the three-year CDS, whereas for the fourth and fifth year, reference is made to the five-year CDS, and for longer maturity to a seven-year CDS.

by the banking system. To this end, we recall the introduction of Targeted Longer-Term Refinancing Operations (TLTRO) maturing in September 2018 (Banca d'Italia 2014b). In particular, banks are able to access the targeted refinancing operations at very advantageous conditions, in terms of interest rate and the use of such operations is subject to the expansion of lending to firms (and households, excluding loans for house purchase) in excess of a bank-specific benchmark. Initial allotments (in September and December 2014) allowed banks to obtain funds up to 7 per cent of the total amount of their loans to (households and) businesses outstanding on 30 April 2014. From March 2015 to June 2016, each bank was allowed to borrow up to three times its net lending in excess of the benchmark. Banks whose increase in lending between May 2014 and April 2016 did not exceed the benchmark had to pay back the amounts borrowed early (Banca d'Italia 2014b).

Also the Eurosystem asset purchase programme is proving effective in supporting the economic activity in the euro area (Banca d'Italia 2016). The extension (besides the Asset-Backed Securities and the Covered Bonds Purchase Programmes, already foreseen for September) of the Eurosystem asset purchase programme to public sector securities was announced by the Governing Council of the European Central Bank in November 2014. Data confirm the positive impact brought by the Asset Purchase Programme (APP)—together with the other monetary policy measures adopted throughout 2014—on credit supply. The cost of new loans to firms (and households) in the euro area has fallen by 70 (and 60) basis points since mid-2014. The reduction has been greater in the countries hit hardest by the sovereign debt crisis.

In the future, monetary policy will have to consider some macrodynamics (e.g., the effects of the weakening of foreign demand and those of the reduction in oil prices registered in the second half of 2015). To this purpose, the Governing Council of the European Central Bank decided in its meeting held on 3 December 2015 to expand the asset purchase programme. The measures address: (1) the lowering of the interest rate on the Eurosystem deposit facility; (2) the extension of the purchase programme for a further six months (to March 2017 or beyond) and the expansion of the range of eligible

assets; (3) the decision to reinvest principal payments on the securities purchased under the programme as they mature, for as long as necessary; (4) the will to continue the main refinancing operations and three-month longer-term refinancing operations as fixed-rate tender procedures with full allotment for the time necessary—and at least until 2017 (Banca d'Italia 2016).

For the third quarter of 2015 the Italian banks reported that liquidity obtained thanks to the Eurosystem asset purchase programme was mainly used for lending to firms (to a lesser extent, to households). The programme helped to achieve an improvement in the terms and conditions applied to firms. The impact on bank profitability was slightly positive overall, reflecting in particular capital gains on the sale of negotiable instruments (Banca d'Italia 2016).

In conclusion, the need to support economic recovery is perceived on both the credit front (also by means of the aforementioned monetary policy initiatives) and the financial system front (by means of measures aimed to develop the system to its full potential). The different operators are called to work in a climate of complementarity and convergence towards a common objective of encouraging in the short-term the economic recovery and of strengthening, in prospect, the growth of enterprises and consequently of the economic system as a whole.

The issue of growth of enterprises is particularly crucial for Italy. As Signorini (2015) shows, the problem for the Italian setting is not the size of small and medium businesses but rather the limited capability of businesses to undertake processes of expansion and growth, especially in an international scenario. Among the constraining factors is the family ownership of businesses, as well as corporate finance. With regard to this latter aspect, it is worth underlying (as is done in Sect. 1.3.1) the historical imbalance in the qualitative composition of the liabilities of Italian companies, characterized by a low incidence of own funds in favour of debt capital, mostly of banking origin, short-term negotiated and predominantly in the form of the current-account credit facility. All the above are elements of weakness, which clash with the financing of initiatives leading to an uncertain outcome and/or with a long payback period, like innovation and internationalization projects are. As is acknowledged, the economic theory offers several insights about the higher capability equity

has in supporting similar enterprise projects: equity does not require the payment of predetermined amounts as interest and principal, does not require collateral, and does not exacerbate moral hazard problems connected with the conflicts of interest between shareholders and creditors. Such claims are also confirmed by empirical studies, such as one by Magri (2014) who examines the causal effect of issuing equities on the probability that a firm engages in research and development (R&D) activity and shows that equity is a better source of external finance than debt for innovation. The paper focuses on unlisted Italian high-tech firms, for which asymmetric information and moral hazard problems are more pervasive, and shows that issuing equity increases the probability that the firm has R&D expenditures by 30–40 per cent. Considerable heterogeneity in this effect is detected: the impact of issuing equity is significant only for small, young, and more highly leveraged high-tech firms.

In closing, the euro area financial system in general, and Italy in particular, calls for an immediate evolution according to a culture of creating complementarity between bank and market financing in place of the opposing bank-market alternatives (Visco 2015a). This is particularly important in identifying solutions tailored to SMEs, which have been most heavily hit by the international crisis due to their dependence on the banking channel. This has inevitably had negative effects: the difficulties of businesses spilled over into banks, which gradually saw an increase in bad loans and stiffened their attitudes in the credit offer. In other words, it has created a vicious circle, which needs to be permanently ended.

5.3 Towards New Equilibria

In the past years several initiatives have been undertaken both at international and country levels to respond to the many events urging for a new balance in the relationship between companies and financial markets considered as a whole. Moreover, such measures appear differentiated being directed to change the incentives to businesses (especially those of a fiscal nature) and the structure of the financial systems. Focusing our attention on the last, we shall first explore the issue through a European perspective and later focus on some specific features of the Italian context.

5.3.1 Initiatives on a European Scale: The Capital Markets Union

In pursuing the objective of increasing integration among European countries, community projects have an extremely relevant role. Here we shall describe the initiative of creating a Capital Markets Union—CMU (European Commission 2015a; ECB 2015c), its rationale and main objectives, as well as expected impacts.

The premise for setting up a single market of capital was first laid down in February 2015, with a consultation launched by the European Commission examining the measures needed to achieve the goal by 2019 (Green Paper on CMU). The consultation agreed on the usefulness of a single capital market in supporting more cross-border risk-sharing, creating deeper and more liquid markets and diversifying the sources of funding to the economy. Alternative sources of financing—complementary to bank-financing (e.g. capital markets, venture capital, crowd-funding and the asset management industry)—should play a greater role in providing financing to weaker businesses that struggle to obtain funding, especially small and medium businesses and start-ups. In addition to bringing benefits for investment and businesses, the diversification of the sources of financing also leads to financial stability, because it mitigates the impact of potential problems in the banking sector on firms and on their access to finance. Accordingly, the CMU is important as it complements the Banking Union. While the Banking Union faces the sovereign-bank negative feedback loop that represented the euro area crisis, the CMU helps in addressing the potential vicious circle of the firm-bank loop, whereby the funding difficulties of banks determine more costly or less financing for creditworthy firms. On the other side, when firms encounter problems in servicing bank credit, non-performing loans increase, banks' balance sheets weaken and banks' lending capacity is impaired (Visco 2015a).

CMU's overall goal is to create opportunities for investors, connect finance to the wider economy, and foster a more resilient financial system, with deeper integration and more competition. The financial system the CMU tends to should also aim to be more diversified as well as more integrated across countries (among others, Demary et al. 2015). In fact,

financial integration in Europe is incomplete, contributing to maintaining market fragmentation along national lines and hindering comparability on a Europe-wide basis; this too can cause a competitive disadvantage for institutions established in some Member States. In order to achieve full integration, all market participants must abide by a single set of rules when they decide to deal with financial instruments and services, have equal access to financial instruments and services, and be treated equally when they act in the market. In a genuine Single Market, capital should not be affected by location of resources or actors, but rather should flow freely and be allocated efficiently without limitation by cross-border barriers or frictions. Therefore CMU must be supported by the appropriate legal-regulatory framework and market standards that ensure a level playing field and allow markets to integrate further (ECB 2015c).

Moreover, the development of financial markets is connected to market efficiency—that is, when the resources available in a financial system are allocated to the most valuable investment opportunities at the lowest costs. Development of financial markets is also connected to the size, that is their critical mass, represented by instrument diversity, a large enough investor base and a broad range of investment opportunities, so that economies of scale are possible. In an efficient financial system, markets are characterized by competition and achievable and broadly distributed information; moreover agency conflicts are solved through credible contracts enforced by legal systems. Conversely, failures of markets lead to inefficiency which may impaire the contribution of finance to growth. In particular, small innovative firms represent an important source of employment growth and added economic value, but they face great challenges for their funding. Removing barriers that slow the development of private equity and venture capital markets should be an important goal of CMU (ECB 2015c).

The benefits of broader capital markets also extend to banks, which could in principle be considered as the first competitors. Yet, banks could continue to play a central role in the financial system by being proactive in shifting part of the intermediation process onto the markets, by expanding their activity in the field of services and assisting firms in direct capital raising. There will be new banking business models, more focused on placement services, advisory and structuring of capital market

products (investment banking), that will be able to promote the banks' profitability by increasing fee-based revenues. The new role of banks is in line with the conviction that market funding should complement, not replace, the role of banks in financing the economy. Hence, banks could continue to play a key role as financial advisors for borrowers, particularly for small and medium businesses; they could also gather credit information and investment opportunities for institutional and retail investors (Sect. 5.2). A healthy and robust banking system, able to support economic growth, hence, constitutes a pivotal factor, despite the diversification of funding sources as a goal of CMU. Within the CMU, therefore, banks are a vital element and can support the development of other forms of financing. Broadening funding sources for firms provides further—even if indirect—benefits for banks. Better access to non-bank financing, such as equity capital, improves the financial structures of firms, supports innovation and makes them more creditworthy, thus safeguarding banks' balance sheets and avoiding vicious firm-bank loops (ECB 2015c). Additional benefits for banks can also derive from one of the short-term CMU priorities, high-quality securitization: since securitization operations are non-standardized products and consequently characterized by asymmetric information, liquid markets and high-quality standards are necessary. Hence, the objective of the CMU is to identify simple, transparent and standardized securitizations by which banks will be able to disengage their regulatory capital and increase their lending, as well as improve the credit risk management.

While the CMU portrays some interesting operative opportunities to banks, it also exerts some pressure on them. On the banks' liability side, for example, it is worth noting that the broadening of the pool of financial instruments available to households—as a result of the CMU—encourages savers to allocate savings outside banks deposits (Visco 2015b; Petrella 2016).

The CMU project is ambitious and complex with several short and long-term goals. On 20 September 2015 the European Commission published the Action Plan setting out the actions needed to put in place the building blocks of the CMU by 2019 and a calendar for their implementation.

Box 5.2 shows the main content of the CMU (priorities and actions) and timelines (European Commission 2015b—Annex 1).

Box 5.2 CMU: list of priorities, projects, actions (and timelines)

Financing for innovation, start-ups and non-listed companies

- *Support venture capital and equity financing*: proposal for pan-European venture capital fund-of-funds and multi-country funds (Q2 2016); revise EuVECA and EuSEF legislation (Q3 2016); study on tax incentives for venture capital and business angels (2017)
- *Overcome information barriers to SME investments*: strengthen feedback given by banks declining SME credit applications (Q2 2016); map out existing local or national support and advisory capacities across Europe to promote best practices (2017); investigate how to develop or support pan-European information systems (2017)
- *Promote innovative forms of corporate financing*: report on crowd-funding (Q1 2016); develop a coordinated approach to loan origination by funds and assess the case for a future EU framework (Q4 2016)

Making it easier for companies to enter and raise capital on public markets

- *Strengthen access to public markets*: proposal to modernize the Prospectus Directive (Q4 2015); review regulatory barriers to SME admission on public markets and SME Growth Markets (2017); review EU corporate bond markets, focusing on how market liquidity can be improved (2017)
- *Support equity financing*: address the debt-equity bias, as part of the legislative proposal on the Common Consolidated Corporate Tax Base (Q4 2016)

Investing for long-term, infrastructure and sustainable investment

- *Support infrastructure investment*: adjust Solvency II calibrations for insurers' investment in infrastructure and European Long Term Investment Funds (Q3 2015); Review of the CRR for banks, making changes on infrastructure calibrations, if appropriate (on-going)

(continued)

Box 5.2 (continued)

– *Ensure consistency of EU financial services rulebook*: call for evidence on the cumulative impact of the financial reform (Q3 2015)

Fostering retail and institutional investment

– *Increase choice and competition for retail*: Green Paper on retail financial services and insurance (Q4 2015)
– *Help retail investors to get a better deal*: EU retail investment product markets assessment (2018)
– *Support saving for retirement*: assessment of the case for a policy framework to establish European personal pensions (Q4 2016);
– *Expand opportunities for institutional investors and fund managers*: assessment of the prudential treatment of private equity and privately placed debt in Solvency II (2018); consultation on the main barriers to the cross-border distribution of investments funds (Q2 2016)

Leveraging banking capacity to support the wider economy

– *Strengthen local financing networks*: explore the possibility for all Member States to authorize credit unions outside the EU's capital requirements rules for banks (on-going)
– *Build EU securitization markets*: proposal on simple, transparent and standardized securitizations and revision of the capital calibrations for banks (Q3 2015)
– *Support bank financing of the wider economy*: consultation on an EU-wide framework for covered bonds and similar structures for SME loans (Q3 2015)

Facilitating cross-border investing

– *Remove national barriers to cross-border investment*: report on national barriers to the free movement of capital (Q4 2016)
– *Improve market infrastructure for cross-border investing*: targeted action on securities ownership rules and third-party effects of assignments of claims (2017); review progress in removing remaining Giovannini barriers (2017)

(continued)

Box 5.2 (continued)

- *Foster convergence of insolvency proceedings*: legislative initiatives on business insolvency, addressing the most important barriers to the free flow of capital (Q4 2016)
- *Remove cross-border tax barriers*: best practice and code of conduct for relief-at-source from withholding taxes procedures (2017); study on discriminatory tax obstacles to cross-border investment by pension funds and life insurers (2017)
- *Strengthen supervisory convergence and capital market capacity building*: strategy on supervisory convergence to improve the functioning of the single market for capital (on-going); White Paper on ESA's funding and governance (Q2 2016); develop a strategy for providing technical assistance to Member States to support capital markets' capacity (Q3 2016)
- *Enhance capacity to preserve financial stability*: review of the EU macro-prudential framework (2017)

The initiatives contained in the Action Plan (both on-going and others with longer-term maturities) show the ambitiousness of the CMU objectives (despite some not yet being fully defined in terms of both modality and timing). However, they are commonly bound by an underlying desire to maximize the benefits of capital markets and of non-financial institutions, to the complete benefit of the real economy, and are expected to overcome the inflection currently hovering over Europe. Emphasis is given therefore to support of economic growth and to the centrality of the financial markets serving the real economy: markets need to be made more effective and integrated and the excessive dependence of enterprises (especially SMEs) on bank financing must be levelled by relying more steadily on market finance—as in line with the developing logic of complementarity.

One of the main focuses of the CTU is therefore financial support to SMEs, as they are considered a fundamental element of European growth. For this purpose, the CMU measures are based, among others, on the modernization of the Prospectus Directive to make it less costly for businesses to raise funds publicly, on the review of regulatory barriers to small firms listing on equity and debt markets, and on the support of the listing

activities of small firms through European advisory structures. It is also important that national information services on credit risk be connected within a network creating a pan-European information system, to address the fragmented information pattern across European information systems. A mapping of SMEs' credit information showed great diversity in Europe in reference to information: what information is shared, by whom, how it is shared, who has access to it (European Commission 2015b). Indeed, this aspect of information fragmentation has been dealt with through the standardization of credit data by the European Central Bank initiative—the AnaCredit (Analytical Credit) dataset on corporate loans launched in 2011, which will be available online in 2018. AnaCredit was conceived to be a harmonized database; it will collect detailed information on individual bank loans in the euro area using new data as well as that retrieved from national credit registers. The need for better and more detailed statistics has increased with the financial crisis, as it has shown that different economic sectors, as well as individual firms in the different euro area countries, reacted differently to economic shocks. It is therefore important to understand and monitor such developments.

5.3.2 Crowd-Funding and Private Placement

Among other measures in favour of financing to small and medium firms, we shall first of all recall those intended to promote innovative forms, such as crowd-funding and private placement. Below is a short focus on these two forms of financing.

Crowd-funding represents a transactions-based technology that can take the form of equity or debt. Crowd-funding platforms allow entrepreneurs to fund their enterprises via the internet, tapping small individual investors. As underlined by Udell (2015), crowd-funding appears to reduce the fixed costs of financing compared to other more traditional forms of funding and particularly fits the need for smaller loans. In cases of other types of loans, this system does not seem to reach economies of costs which are instead achievable by other operators (primarily banks). In some euro area countries this form of financing—viewed as a promising initiative, being tailored to the needs of specific actors such as smaller firms—has been developing rapidly, thus calling for a common European

regulatory framework, in order to prevent national legislations from creating an uneven playing field.

Private placement is a form of financing that allows firms to directly place their bonds with institutional and other experienced investors under less onerous regulatory requirements than when issuing securities to the public. A private placement is a medium- or long-term debt financing transaction between a listed/unlisted company and a small number of institutional investors. It is based on deal-specific documentation negotiated between the borrower and the investors (ICMA 2015). Generally—but not in all cases—one or more banks participate as arranger, acting as facilitator between the borrower and the investor, but not as an underwriter of the debt. Rather than performing an underwriting role, the arranger performs the role of the borrower's agent. Thus, the arranger helps facilitate the documentation process; it could approach investors, coordinate marketing and assist with co-ordinating pricing and hedging (ICMA 2015).

Since the onset of the financial crisis, private placements in Europe have increased to 30 per cent in 2014, rising to €17 billion from €13 billion in 2013. However, an even greater volume of funds was raised by European firms through private placement on US markets rather than in their home market—even accepting higher costs as a result (European Commission 2015b). The higher cost of US emissions is explained by the fact that international arrangers are unfamiliar with the business of the euro area and investors demand higher yields to compensate for the additional information asymmetries. In Europe private placement, however, is limited to a scarce number of countries, such as France and Germany, and so far there is no pan-European private placement market; such an initiative would have important and positive impacts, primarily on medium-sized companies by providing medium- to long-term debt finance.

As underlined by Branzoli and Guazzarotti (2015), the private placement market appears to adapt to specific targets: from the enterprise's perspective, those with low credit risk and, on the investor's side, those with adequate evaluation capacity and risk management. The concrete contribution that can result from this form of financing supports medium-sized companies with strong investment projects, eager to gain access to the public market. The Anglo-Saxon experience in fact shows a relationship of complementarity between private placement and the bond market. In the case of smaller companies, the use of this form of financing is hampered by

the high burden, also connected to the information opacity of these businesses. Positive impulses in this regard may result from the recalled orientation of the CMU to facilitate investor access to budget information and the credit business quality. Other impediments to the development of private placement in Europe are linked to the arranger function, which is mainly carried out by banks, whose core business is greatly focused on lending.

Further development of private placement could be ensured by removing the main barriers which are primarily represented by limited standardized processes and documentation. To this end, in February 2015 the International Capital Market Association (ICMA) published the Pan-European Corporate Private Placement Guide. This Guide, which is exclusively focused on corporate bonds, promotes the use of standardized documentation produced by the Loan Market Association (governed by English law) and the Euro-PP Working Group (governed by French law). Drawing upon this initiative, the European Commission will seek and promote best practices across Europe.

The Guide, among other things, describes the documents referred to the private placement and the main steps, as well as the involved parties.

Box 5.3 summarizes the entire process, through the several steps involved in a typical 10-week period (ICMA 2015).

Box 5.3 Private placement: description of the main steps (and parties involved)

Kick-off

- *Engagement letter of arranger* (*borrower*/*arranger*). This is the letter between the borrower and the arranger pursuant to which the former engages the latter. It also states in which capacity the arranger is acting
- *Preparation of a short credit profile of the borrower* (*arranger*)
- *Signing of a non-disclosure agreement, if applicable* (*borrower*/*arranger*). This is required unless the arranger is subject to confidentially rules in its capacity as a credit institution or an investment firm
- *Preliminary analysis of the borrower's credit profile* (*investor*)

(continued)

Box 5.3 (continued)
Marketing

- *Preparation of the investor presentation/ information memorandum* (*borrower/arranger*). The information memorandum describes the borrower and summarizes the terms and conditions of the private placement transaction; it is submitted to each potential investor. It may contain information on: (1) company overview (history, business and markets; breakdown of revenues by business segment; group strategy and key objectives; organizational and shareholder structure; management, organisation and employees); recent events (key business trends/ events; acquisitions, spin-offs; environmental, legal, litigation and others); financial performance (financial statements; overview of credit ratios, financing and group financial targets); (2) operational positioning (key business strengths; brand; diversification; client analysis and relationship with suppliers; competitive position); (3) financial positioning (cash flow generation; P&L accounts; balance sheet; investment and dividend policy; main covenants and guarantees); (4) risk factors
- *Meetings between the borrower and the investors* (*borrower/ arranger/investors*)
- *Credit analysis* (*investors*). This includes credit risk analysis and all available contractual undertakings relating to the private placement transaction under consideration
- *Negotiation of the key terms and conditions* (*borrower/arranger/investors*). Negotiation of contractual terms and conditions by the borrower and the investors is a key feature of a private placement transaction, as it distinguishes such operation from public and syndicated bond issues, such as Eurobond issues where investors subscribe to an issue without (usually) being involved in this phase. The negotiation of private placement terms and conditions therefore has similarities with the bank lending process. The terms and conditions contain many

(continued)

Box 5.3 (continued)

detailed information, such as the interest owed by the borrower (fixed rate, variable rate, etc.), the interest calculation methods, any step-up/step-down provisions triggered by the occurrence of certain events, the payment mechanics and payment days as well as other administrative and legal information

– *Investors' credit committee approval*: *terms*, *size*, *maturity*, *price* (*investors*)

Legal documentation

– *Preparation of the term sheet (borrower/arranger/legal counsel)*. The term sheet contains a summary of the main financial and legal terms and conditions; it reflects negotiations between the borrower, the arranger and the investors who wish to take part in the transaction
– *Term sheet sent to investors* (*arranger*)
– *Preparation of agreements* (*borrower/arranger/legal counsel*). Once the term sheet has been finalized and accepted by all the parties, it becomes the basis for drafting the loan agreement

Closing

– *Signing of agency/trustee mandates*, *if applicable* (*borrower/agent/trustee*)
– *Satisfaction of conditions precedent* (*all parties*)
– *Signing of agreements* (*borrower/arranger*)
– *Funding* (*arranger/agent/investors*)

5.3.3 An Overview of Measures Taken in Italy

The creation of large and efficient markets in Italy, as conceived within the CMU project, could offer companies (especially smaller ones) new funding and growth opportunities and offer investors more alternative ways of using resources. At present, the data on the use of the stock market and bond market by Italian enterprises are not very comforting. No doubt, therefore, the development of markets in Italy can be positioned in the

wider European context. This is to facilitate the evolution of the financial system into a more complex structure in which the role of institutional investors and of the capital market grows hand in hand with that of banks.

An analysis of the use of the stock market shows 11 initial public offerings (IPOs) in 2013—approximately double the yearly average between 2008 and 2012. In 2014 business made further steps to strengthen capital, with net inflows amounting to €10 billion (€34 billion in 2013). According to 2012–2013 balance sheet data, the most profitable firms increased capital, by reducing dividends. Additional equity capital was raised through IPOs: their number increased to 23 in 2014, compared with an average of 7 in 2008–13, a trend that continued to gain impetus in the first quarter of 2015. Most of the IPOs were made on the Alternative Investment Market, characterized by simplified listing procedures. Data from the Italian Private Equity and Venture Capital Association (AIFI) showed that investment by private equity firms was about the same as in 2013 (€3.5 billion) but involved fewer businesses (311 compared with 368). Financing of start-ups (mainly in high-tech sectors) diminished, further increasing the great gap between other leading countries (Banca d'Italia, various years).

A drive to strengthen enterprises' capital was recently triggered from the allowance for corporate equity (ACE) introduced in 2011. The increasing of the rate for deductions of capital increases from taxable income (which was set at the end of 2013) is aimed to eliminate the fiscal advantage of debt over equity. Decree Law 91/2014, converted into Law 116/2014, further raised the allowance for a three-year period—subject to approval of the European Commission—for firms listed on regulated markets or multilateral trading facilities. The law also establishes a credit against the company's IRAP tax liability when the allowance cannot be used in full, because of insufficient taxable income. The Survey of Industrial and Service Firms showed that the ACE measure allowance brought benefit to over 10 per cent of the firms that decided to increase their equity capital in the period 2012–14; the percentage was even higher among large firms (Banca d'Italia, various years).

As to bond issuances, from 2002 to 2013 Italian firms' access to the bond market was on average about 160 per year and annual gross issues averaged €25 billion. Between 2009 and 2013 gross bond issues by firms

increased significantly, averaging €32 billion a year, compared to €23 billion in the period 2002–07, and reached a maximum of €40 billion in 2013. Hence, the placements were particularly high in the years during which firms faced the greatest difficulties in accessing bank credit (2009, 2012 and 2013). In spite of this increase, the number of placements dropped significantly after 2008: the average number of issues decreased from about 185 per year in 2002–08 to 130 during the 2009–13 period (Banca d'Italia 2014a). Although lower than in 2013, gross issuance returned again to be substantial in 2014—amounting to €28 billion—in consequence of the favourable market conditions. Access to the market broadened; it is confirmed by the rise in the number of issuers, especially first-time issuers, which reached the highest levels of the past five years (152 and 97 respectively). According to data for 2015, the activity of firms within the bond market remained basically stable, alongside the improvement in bank loan supply conditions. After two years of marked expansion, however, the number of new issuers declined (Banca d'Italia 2015b).

Speaking of first-time issuers, over 1200 of these were reported for the period 2002–13: their numbers declined sharply throughout the crisis, falling from a yearly average of 124 between 2002 and 2008 to 72 in the five following years; the fall was especially pronounced among SMEs (Banca d'Italia 2014c). This phenomenon is explored by Accornero et al. (2015), who have studied the characteristics of the Italian firms that tapped the bond market the first time between 2002 and 2013. In particular, they estimate the probability of a first-time issuance taking into account indicators of firms' economic performance and financial choice. The paper also identifies a pool of possible first-time issuers for the purpose of estimating the potential size of the Italian bond market as alternative to bank lending. The main results show that the reputational aspects and the firm's transparency positively affect the probability of issuing a bond for the first time, which is also affected by the need for financial growth (mainly for larger firms) and to reduce maturity mismatches between assets and liabilities (mainly for small firms). Besides, the results show that the drop in the number of issuers during the economic crisis is partly due to the higher risk aversion among investors. Moreover, results show that the drop in the number of issuers during the economic crisis is partly due to the higher risk aversion among the investors.

Some differences in issuance volumes can also be seen depending on the size of the firm. During the crisis, an increase in placement was seen for large firms, partly offsetting the decrease in bank lending; they mainly accessed international markets. Therefore, bond issues have largely replaced bank debt. An analysis conducted on a sample of approximately 260 Italian industrial groups shows that the businesses turning to the bond market between 2009 and 2013 reduced their indebtedness to Italian banks by about 42 per cent, while bank lending to other groups remained basically unchanged. The placements of securities by the groups in the sample summed up to approximately €68 billion net of redemptions, while bank loans fell by €33 billion. On the other hand, there was a decline in both the value of the securities issued and the number of issuers among SMEs, whose placements are mostly aimed at the domestic market, which is mainly bank-driven and much less liquid than the international one (Banca d'Italia 2014a). Indeed, SMEs are hampered in approaching the bond market by different factors, such as the lack of appeal their bonds have for institutional investors, due to their low liquidity and high credit risk. Another obstacle is represented by the fact that many businesses might be reluctant to bear the costs connected with the greater level of transparency required by the market.

In order to encourage SMEs in Italy to access the bond market, a more favourable system for bond issues (mini-bonds) by unlisted firms was introduced in 2012. In detail, Decree Law 83/2012, ratified by Law 134/2012, updated the rules for debt security issues (financial bills and bonds) by unlisted companies other than banks and micro-enterprises as defined in Commission Recommendation (2003/361/EC). For securities listed in regulated markets or held by professional investors, the law removes the limit on the tax deductibility of interest payments and the maximum value of the securities that can be placed (Article 2412 of the Civil Code) and exempts some investor categories (including banks, companies and non-residents) from the 20 per cent withholding tax.

A mini-bond market analysis conducted by the Politecnico of Milano (2016) shows that 179 issues were made since the first placement in November 2012 (in some cases businesses have carried forth multiple emissions); such issues are mostly bonds, and less frequently financial bills.

The average issue size has contracted significantly. In 2015 the issue size further decreased, ranking in the second half of the year at €22 million against €28 million in the same period of 2014 and €100 million in 2013. As to maturity, the prevalent form is for five-year, especially for large enterprises.

With regard to issuers, they amounted to 145 enterprises; of these 55 SMEs have placed mini-bonds in Italy, 48 of which are first-time issuers (figures updated as of 31 December 2015). Compared to 2014, the share of SMES has increased, going from 39.6 to 48.1 per cent. The majority of these businesses are mostly represented by joint stock companies (86.2 per cent), and in a smaller percentage by limited liability businesses and cooperatives. The turnover of the issuing companies is highly variable: the largest portion is concentrated between €100 million and €500 million, though some enterprises have a turnover of less than €10 million. In 2015, there was an increase among the number of issuers with turnover of between €10 million and €25 million, while there was a decrease for those between €25 million and €100 million. As for the business sector, there is a massive presence from the manufacturing, mainly due to large enterprises and new issuers in 2015. The sectors thus range across a wide and diversified array of activities, from trade to utilities, from financial services to real estate, from computing to buildings. The geographical location shows a clear dominance of the Northern regions, although 2015 saw a slight advance of the Southern regions. Among the reasons for issuing, first in place was financing internal enterprise growth (in 64 per cent, especially for SMEs). Second in place was restructuring the enterprise's liabilities (especially for large companies), followed by the external growth strategy through acquisitions and the need to feed the working capital cash cycle.

The analysis of financial statements of SMEs issuing mini-bonds highlighted, on average, positive trends in profitability and the liquidity situation before the issue, connected to good deleveraging. Finally, a further analysis of the budgets of the 34 companies that had raised capital with mini-bonds from 2012 to the first half of 2014, showed three patterns of behaviour: 'aggressive growth', based on increasing asset invested as well as bank debt; 'prudent growth', based on increasing asset invested and the reduction of bank debt; 'crash diet', focusing on the reduction of assets and bank debt (Politecnico of Milano 2016).

5.3.4 Focus on the Role of Insurance Companies

Following the progression of the Italian financial system and its further support in financing enterprises and the economy, another noteworthy measure is represented by Decree Law 145/2013, converted by Law 9/2014. This has been designed to foster investment by insurance companies in financial instruments issued by SMEs. In particular, the decree requires Ivass (the Italian Insurance Supervisory Authority) to extend the range of assets eligible to cover technical reserves (that indicate the reserves managed by the insurance company to cover future claims and losses). Previously, insurers were allowed to invest in bonds and similar securities not traded in regulated markets and with a residual maturity of less than a year or securities issued by businesses whose financial statements had been audited for at least three years. Issues from securitizations had to be of investment grade. The new rules now also allow insurance companies to invest in mini-bonds that do not meet the requirements concerning the firm's age, the auditing of financial statements, and residual maturity. Moreover, insurers are allowed to invest in securitization bonds not of investment grade as long as they comply with specific characteristics. For each of the two new categories of eligible bonds, there is a limit of 3 per cent of the technical reserves to cover (Banca d'Italia 2014a).

It is worth underlining that the effects of the new rules on investment strategies of insurance companies are highly uncertain: the investment in private-sector securities in general is still well below the regulatory threshold. Moreover, the investment in corporate bonds—which are riskier on average—could be affected by the new prudential rules (Solvency II), which introduce risk-based capital requirements for insurance companies (Banca d'Italia 2014a).

To date, results reaped are still modest. Periodic surveys conducted by Ivass on the investment policies of the major insurance groups report no evidence of aggressive strategies for raising portfolio risk and return profiles: insurers are diversifying asset portfolios by purchasing the securities of other euro area governments and European private sector securities. So far, they have not taken advantage of the regulatory changes that have broadened the set of assets eligible as cover for reserves. They have invested very little in mini-bonds of unlisted companies (approximately

€30 million), and their investment in funds specializing in the bonds of unlisted companies has likewise been marginal (Banca d'Italia 2015b).

A further legislative contribution intended to foster the expansion of funding sources for Italian companies is represented by Decree Law 91/2014—converted by Law 116/2014—which increases the categories of financial intermediaries eligible to grant loans to firms, as already provided in some EU countries (e.g. France and Germany). The new law allows insurance companies to lend directly to firms (except micro-businesses) providing that they work in conjunction with a bank (or a financial intermediary) which selects the borrowers and maintains, even temporarily, an economic interest in the operation. Whenever the insurance companies wish to act alone, they must obtain special authorization from Ivass. In any cases, the insurance company must be sufficiently capitalized and have in place adequate risk-management systems. Secondary legislation requires insurance companies to submit to Ivass a detailed plan of their proposed lending activity. In particular, the companies must describe how the selection and monitoring of lending operations are organized and, whereby they are not assisted by a bank, they must demonstrate their ability to manage credit risk in accordance with banking standards (Banca d'Italia 2014c).

According to Provision 22 October 2014 No. 22, Ivass establishes the conditions for the issuing of funds, first of all by establishing that recipients of funding must be identified by a bank (or a financial intermediary), which must retain an economic interest in the transaction, equal to at least 5 per cent of the loan granted (also transferable to another bank or financial intermediary) until the maturity date of the transaction. The insurance company must have in place an internal control and risk-management system that enables it to fully understand the risks (in particular credit risk) linked to that specific activity.

Additional provisions are dictated by reference to the lending procedure and maximum percentage limits of financing, in addition to the insurance company's disclosure requirements and Ivass's power of action.

As to the lending procedure, the insurance companies willing to engage in financing activities must prepare, as mentioned, a plan of activity, including information on the characteristics of the loans. Specifically, such a plan should include: (1) the methods used to screen borrowers, directly or with the support of a bank (or a financial intermediary) (2) in

the case of direct operation, the criteria for screening borrowers, for granting and managing loans, as well as the procedures for periodic reviewing of the criteria in the light of the trend of the activity performed; and (3) the definition of the amounts for financing activities and the concentration limits per issuer and group of borrowers.

In the case where an insurance company is not supported by a bank, the plan has to present much more detail, as it has to describe the organizational structure implemented for screening and monitoring of borrowers and demonstrate the insurance company's ability to understand and manage credit risk, using best banking practices.

The plan must then be submitted to Ivass, who will evaluate within 90 days the consistency of the plan against the investment strategy, the level of capitalization, and the risk-management system of the insurance company. Ivass will also consider the level of economic interest in the transaction, as well as its duration, retained by the bank (or financial intermediary) involved in the financing operation. During the 90-day assessment period, Ivass may also ask the insurance company to modify the plan, perhaps by changing the terms or amount of credit.

Once the approval period (by means of silent approval) has ended and the Ivass consent is stated, the insurance company's administrative body may approve the financing plan and thus authorize the granting of loans. The silent approval procedure is not, however, applicable in the case where an insurance company decides to operate independently: in this case it is necessary a formal written approval by Ivass.

With reference to the limits of financing, they depend on whether the borrowers are selected by a bank (or a financial intermediary), or independently by the insurance company.

In the former case, loans are divided into three classes; a maximum limit of coverage of the technical reserves corresponds to each class.

Loans falling within the first class are regulated by the following requirements: (1) the bank (or financial institution) holds, until the maturity date of the financing operation, a financing percentage exceeding 50 per cent; (2) loans are granted to borrowers with high credit rating; and (3) the beneficiary company's balance sheet is certified by a duly authorized audit company. Under these conditions the insurance company can finance the enterprise within the limit of 5 per cent of the technical reserves to be covered.

The second class includes only those loans meeting the first requirement of the previous class, and not the second and/or third. In this case the insurance company may grant loans within the limit of 2.5 per cent of the technical reserves to be covered.

Finally, the third class refers to loans that do not meet any of the requirements mentioned above. In these cases, the insurance company may extend credit within the limit of 1 per cent of the technical reserves to be covered.

Ivass specifies that the set of these three classes of loans may amount in total to a maximum of 5 per cent of technical reserves.

When instead the insurance company operates independently in identifying borrowers, the assets that may be allocated to coverage of the technical reserves will be determined by Ivass in the formal approval authorizing the procedure.

Finally, insurance companies that provide financing will have to send periodic information reports to the Bank of Italy, which will govern the terms and conditions by which the insurance company will take part in the Central Credit Register, in order to constantly monitor the creditworthiness of firms.

It is also worthy of note that a number of tax concessions have been conceived to encourage insurance companies to grant credit. The substitute tax regime (article 17 of Presidential Decree no. 601/1973) and the scheme for exemption from withholding tax on interest arising from the medium-long term loans to enterprises have been in fact extended to insurance companies issuing loans (Cirielli 2014).

The opportunity given to insurance companies to grant loans to businesses is a novelty for the Italian legislation, but raises several concerns. Consider first that when the decree was converted into law, the provision of the bank-insurance company partnerships—by which the bank has to withhold a *significant* economic interest in the transaction until the maturity date of the operation—was emptied of its meaning, being overridden by the concerns of providing new credit to the economy from new subjects. Hence, as the law is configured in such a way, it could imply the risk of adverse selection and moral hazard, since the bank could assign to an insurance company the more deleterious credits, and then retire from the partnership (Rossi 2014). In order to prevent this from happening,

it is necessary that insurance companies develop appropriate skills for managing risks related to loan issuing. Such skills however are part of banking heritage and would be extremely costly and difficult for insurance companies to acquire.

These obstacles, together with the weak economic situation, the insurance regulatory changes (especially Solvency II) and the widespread distrust of investors towards the attractiveness of the new asset class, has obviously had its toll on the results achieved so far: indeed, to date no insurance company has made direct loans to firms (Banca d'Italia 2015b). As for the future, at least in the short term, it appears evident that this activity will ultimately benefit medium and large enterprises for which the credit risk assessment is easier, especially when performed by entities other than banks.

More generally, the insurance companies at present do not show great interest in the new investment opportunities recognized by recent legislation. Investments in mini-bonds, securitizations and direct loans to enterprises are in fact well below estimated expectations; €42 million against €100 billion (Sannucci 2015).

Given that similar attitudes today might be justified by conjunctural factors (such as those mentioned above), it is obvious that insurance companies have great difficulties in financing the economy, as in general additional technical expertise to perform such task is requested. Although this, in the future, could mean attractive operational opportunities for larger insurance companies, the remaining slice of the insurance industry should be called to support businesses in a different manner, more closely aligned with their core business. For example, they could enhance risk coverage for risks that businesses are typically exposed to (fire, theft, and third party liability); enterprises would be more covered against the risk, which—for the same size, geographical location and economic sector—may have a positive effect on their ability to access credit.

In the past there have been a number of examples of insurance-bank partnerships both in commercial terms (such as the bank-insurance phenomenon) and more recently in regulatory terms (e.g. Solvency II and Basel III, both expression of a risk-based supervision). With no doubt these synergies will further develop in the future, through the exploitation of factors useful to strengthen the capacity of the Italian financial system to

meet the investment needs of businesses according to a progressive diversification logic. However, this must occur through a gradual approach, enhancing the contribution each operator of financial markets can make to the growth of the economy. As Sannucci (2015) explains, the issue is not in having to develop more finance, but rather, better finance. This means finance that does not forcefully push for the expansion of credit—which can generate serious distortions, such as inefficiencies in allocation and risks to financial stability, already observed during the recent crisis. What is crucial however is to identify the most appropriate solution with respect to the specific needs of companies: from credit to equity, from services for accessing the capital market to services for enterprise restructuring. For the banks this means, as mentioned before, being able to exploit the opportunities for diversification of revenue, thanks to the offer of advisory services to enhance relations with enterprises. This will contribute to business development and the economic growth of the country, by means of a greater diversification of the financial system, which will eventually ensure greater stability and higher efficiency levels. From this comes the opportunity to break the vicious circle whereby the difficulties of banks translate into lesser credit or more expensive credit terms and conditions for enterprises. This therefore seems to be the essence of the renewed integration of the banks-enterprises-financial markets.

5.4 Conclusions

In Europe in general, and in Italy in particular, SMEs show a strong dependence on bank financing. In order to encourage the development of alternative sources of financing, many initiatives have been undertaken in recent years. Overall the measures are aimed at loosening the excessive reliance firms have on bank lending, to foster financial stability and to make markets more effective, in order to avoid the problems of banks having an adverse impact on firms and on their access to finance.

The evolutionary path carried out at European and country levels tends to affirm a new paradigm of complementarity between banks and market financing. This is particularly important in identifying specific solutions for the financial needs of SMEs, which have been most heavily hit by the

financial and economic crisis, given their dependence on bank credit. This had various negative impacts: the difficulties enterprises experienced affected banks, which registered an increase in bad debts and so stiffened their attitudes to credit supply.

It is clear that such a vicious circle must end. To this purpose, many measures have been introduced, despite some still needing to be fully defined. Among the European provisions, the Capital Markets Union represents one of the most significant initiatives. Despite its complexity, the CMU tends to achieve many objectives and one of these is represented by the diversification of the sources of funding in the economy. The final goal is to provide financing to weaker businesses that struggle to obtain external funds, especially SMEs and start-ups.

This would bring benefit to many operators: investors, firms and banks. Banks in particular could continue to play a central role in the relationship with firms by being proactive in shifting part of the intermediation process from themselves to the markets, as well as by expanding their operation in the field of services and assisting firms in raising capital directly. It would allow new banking business models, more focused on placement services, advisory, and investment banking that could promote the banks' profitability by increasing fee-based revenues. Also the core business could maintain its central role: banks will likely remain the primary source of credit, especially for SMEs. In this regard, however, the role of the lender should be given fresh impetus through the procedures and the content of renewed credit risk-assessment processes. This would avoid the increase of non-performing loans on bank balance sheets deriving from the difficulties encountered by businesses in adverse economic times, which—as seen during the crisis—gravely contribute to the tightening of credit supply criteria by the banks.

Among the measures in Italy which are particularly significant is the provision that includes insurance companies among the intermediaries eligible to grant loans to firms. Such an opportunity, despite its degree of novelty for the Italian system, raises several concerns, mainly connected to the overall lack of appropriate skills, in the insurance industry, for managing risks relating to lending: moreover, such skills—purely part of banking heritage—could be extremely costly and difficult to acquire.

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6

Is Banking Business Changing? Some Evidence

6.1 Introduction

This chapter is an analysis of the banking business and is intended to provide supporting evidence on the main issues addressed in the previous chapters.

To this end, it first presents some results from a survey of major international banks in three international macro-areas: Europe, the USA and Japan (Sect. 6.2). Such results highlight the trend of the main balance sheet items and help understand the health status of intermediaries, working on scenarios with different contingent and structural characteristics. The purpose is to derive ideas for outlining the prospects of banking operations on a global scale, with particular attention on the European market. The final goal is to understand the intensity and extent of changes in recent years (reflected in bank balance sheets) which affect the shape currently taken by banking business and the shape it will probably take in future.

Next, the chapter focuses on lending and provides insights on the main traits of credit risk management implemented in a sample of banking groups operating in Italy (Sect. 6.3).

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Finally, the chapter describes the experience of two Italian banking groups with reference to their offer to enterprises and related key features (Sect. 6.4). Section 6.5 draws conclusions.

6.2 An Overview on an International Scale

A recent survey by Mediobanca (MBRES 2015) investigated the balance sheets from a sample of 60 large banking groups (32 European, 15 Japanese and 13 US) for the decade 2004–13. It provides, among others, some interesting insights into profitability and capitalization. The study describes the main results related to the European setting, and compares them to the US and Japanese settings, highlighting for each European result the most significant deviations from the USA and Japan.

Starting from profitability for the period 2004–11, the European banks showed an average annual growth rate of revenues equal to 4.3 per cent (USA 2.2 and Japan 0.4 per cent), mainly owing to the increase in net interest income and to a lesser extent to that of net commissions. Turning to 2012–13, the values change significantly for European banks, which recorded a decrease of approximately 10 per cent, due to contractions of both net interest income and fees. Conversely, US banks in the same period showed a limited growth (0.4 per cent) and Japanese banks reported a 3.7 per cent increase.

Regarding the ratio of revenues to total assets, the average for European banks amounted to 2 per cent, against 4.7 per cent of US banks and 1.4 per cent of the Japanese ones. For all three macro-areas, banks have total asset increases higher than revenues, highlighting that in the long-term dimensional growth has not been accompanied by a corresponding increase in revenue.

The comparison between the values of return on income (ROE) for 2013 highlights more modest (though increasing) values for European banks (2.9 per cent) compared to competitors (USA 8.9 and Japan 8.6 per cent). Within the sample analysed, the two Italian banks considered (UniCredit and Intesa San Paolo) are between the four European banks closing 2013 with a loss.

On the side of negative components of income, the analysis conducted on loan impairments should be mentioned (MBRES 2015). For 2013, European banks showed a decline compared to the previous year: from 21.8 to 17.6 per cent for the ratio between loan impairments and revenue, from 1 to 0.8 per cent for the ratio between loan impairments and total loans to customers, from 8.4 to 6.8 per cent for the ratio between loan impairments and core capital. The two Italian banks included in the sample, along with the Spanish ones and one from the UK, show the highest coefficients, with maximum values for Unicredit.

Shifting the analysis to the period 2004–13, the incidence of impairments is lower for European banks (and even more for the Japanese banks) than for the US banks, which, regardless of the ratio considered, show the highest values (Table 6.1; see MBRES 2015).

The smaller annual impairments by European banks inevitably reflect on the increased incidence of net doubtful loans at the end of the period, reflecting the inadequacy of provisions for non-performing loans. For the sample period considered, notice the lack of a definition of non-performing loans at European level, which has been handled only recently by the European Banking Authority (EBA) (Box 6.1); in particular, the main differences concern the practices of forbearance, with more restrictive criteria applied in Italy for the entire period of the analysis, in Spain and the UK since 2012, and since 2013 in France and the Netherlands. On the opposite side, the lowest values of impairments for Japanese banks are due to both the substantial impairments made in the years preceding the one examined and the improved credit quality of recent times.

Table 6.1 Loan impairment to non-performing loans (percentage)

	Loan impairment			Non-performing loans	
	to total revenue	to total loans	to capital	to total loans	to capital
	Average values (2004–13)			31 December 2013	
Europe	15.2	0.7	6.9	3.6	30.6
Japan	9.7	0.3	2.8	0.9	7.3
USA	16.7	1.7	8.3	1.4	5.7

Box 6.1 Non-performing exposures and Forborne exposures

In order to achieve a more harmonised view on asset quality issues across institutions and jurisdictions and to ease supervisory work across the EU for identifying and solving them, the EBA has developped the definitions of non-performing exposures and forbearance. In particular, non-performing exposures are those that staisfy either or both of the following criteria: 1) material exposures past due by more than 90 days; 2) exposures for which the debtor is assessed as unlikely to pay its obligations in full without realisation of collateral, regardless of the existence of any past due amount or of the number of days past due. On the other hand, forborne exposures are debt contracts in respect of which forbearance measures have been extended. Forbearance measures consist of concessions (e.g., modifications of the previous contractual terms and conditions or total or partial refinancing) towards a debtor facing or about to face difficulties in meeting its financial commitments (financial difficulties).
For further details see EBA (2014).

The trend in loans to customers in 2013 shows an impact on the total assets for all three macro-areas between 43 and 45 per cent. However, the European banks show a reduction from the previous year (–4.4 per cent), against a sharp increase for Japanese banks (5.9 per cent) and a much more modest increase for US banks (0.6 per cent).

Turning to capital ratios, European banks at the end of 2013 have higher values of the ratio between the total capital and risk-weighted assets (RWAs) (17.4 against 16.2 per cent of Japanese banks and 14.7 per cent of the US banks). These differences, also found in the case of the Tier 1 ratio (Tier 1/RWAs), also are affected by the different degree of progress in complying with the provisions of Basel II and III (Chap. 3). In Europe, the general improvement of the coefficients can be attributed more to the reduction of RWAs (–5 per cent) and to a lesser extent to the increase of capital (3 per cent). In the other two macro-areas, however, there has been an increase in both the numerator and the denominator, resulting in no change in the ratio.

Additionally, the ratio between the total assets and core capital (leverage ratio) is higher for European banks for the whole period considered: it is in fact equal to about 29 in the decade (with a peak of 41 in 2008), whereas it is positioned at 23 for Japanese banks and at 19 for US banks.

Lastly, focusing on 2014 data, the study (further supported by some economic and financial indicators aimed at identifying the prevalence of lending on the overall activities carried out by intermediaries) shows that for

European banks the levels of profitability in granting credit are higher compared to financial intermediation: in such cases, in fact, ROE amounted to 5.1 per cent, against 3 per cent registered by the banks more oriented to financial activities. Also as to the asset balance, lending appears to have advantages, since it is accompanied by more robust capital structures (lower leverage). These observations are valid even for the US market, although with different intensity.

The brief observations above point out a disadvantage (already mentioned; see Table 2.2) in terms of profitability on the European scenario and confirm once again the central role of lending. A key role that deserves, therefore, to be further enhanced, both by intervening on the processes of credit risk measurement and management (in order also to decrease the incidence of non-performing loans) and on the opportunities of engaging with firms according to a broad logic of value creation for both parties, thus including solutions of complementarity between bank and market financing.

6.3 Credit Risk Management in Italian Banks

In light of the importance of lending and related credit risk management, this part of the chapter reports the main results of a survey conducted on 20 Italian banking groups, aimed at analysing the different profiles of the credit risk measurement and management processes (Altieri Pignalosa et al. 2012).

In particular, based on data obtained from the consolidated balance sheets and the Pillar 3 Reports, the survey focuses on the principal aspects of credit policies and strategies, credit risk measurement systems, the use of rating systems, credit risk mitigation and credit risk monitoring.

As to the first aspect, credit policies and strategies, the majority of banks defines an appropriate framework in which the objectives of the credit risk processes are laid out and the tasks and responsibilities of the bodies and functions involved are formalized.

In general, the framework refers to the procedures for granting and managing credit and highlights the related purposes. Among the most recurring contents, are the achievement of growth objectives consistent with the risk appetite and creation of value, the portfolio diversification policies, the efficient screening of economic groups and individual borrowers, the constant monitoring of relationships and supporting local economies.

The credit management policies—constantly monitored by the governing bodies—translate into various organizational structures (Altieri Pignalosa et al. 2012).

Some banks refer to the principle of separation between business functions and control functions, the work of designated credit committees—responsible, among other things, for the coordination of credit policy at group level, the establishment of limits to maximum exposures, as well as the monitoring of the quality of loans and their degree of concentration.

Most often great emphasis is posed on operational structures that ensure credit risk management and control, by carrying out several tasks. Below are some examples of banking organizations and experiences.

One bank, for example, is broken down into four main areas of responsibility. The Chief Financial Officer coordinates the formulation of credit strategies, oversees pricing on the basis of risk-return analysis, evaluates credits for accounting purposes, and identifies and implements hedging transactions. The Chief Lending Officer assesses the creditworthiness of the loan applications, issues compliance opinions, manages and monitors doubtful loans and the recovery of non-performing loans. The Chief Risk Officer measures and controls risky exposures, defines the risk measurement metrics, provides risk-adjusted price models, defines actions on the expected loss, the economic capital and acceptance thresholds, and monitors risk trends and credit quality. The Chief Operating Officer, finally, offers specialist support in the definition of credit processes, by ensuring cost synergies.

Another intermediary focuses on the establishment of the Credit Governance Area, organized as follows: Staff Model Validation and Credit Systems; Staff Credit Monitoring (monitors the credit quality and its trend, as well as the timeliness and effectiveness of the initiatives promoted); Policies and Credit Planning Area (updates the screening and monitoring processes); and Risk and Restructuring Area.

A third intermediary describes the tasks of the Credit Policy Office, which is responsible for setting out the methodologies, guidelines and tools to support the assessment and provision of credit. Moreover, Credit Control monitors irregularities regarding the loans granted and the Rating Office assigns ratings to corporate customers. The Operational and Credit Risks Office supports the Rating Office and the Credit Policy Office in the analysis of the internal rating models, quantifies the risk parameters, periodically assesses the risk levels for single entities, constructs risk/return indicators (risk-adjusted

performance measures), develops the capital allocation process, and monitors the current and future risk in conditions of economic stress.

One last intermediary focuses on the tasks of the Credit Risk Portfolio Management and the Transactional Risk Managers. The former oversees and controls the overall risk profile and defines the strategies, methodologies and risk limits. The Transactional Risk Managers ensure control of the various areas of credit risk origination. There is also the Risk Management structure composed of the Risk Management Control Department, the Operating Office Department and the Special Credit Department. The first is responsible for the Basel project, internal validation, assignment of ratings to some relevant counterparts (Top Banking and Top Corporate), as well as the monitoring of the override process. The second produces reports on consolidated risks. The third coordinates and supports and, in the case of large-volume transactions, is responsible for restructuring and recovering activities.

The banks that do not present a complex structure of credit risk management, however, describe the tasks of the Risk Management Service, as broadly being (Altieri Pignalosa et al. 2012):

- measuring the risk, also at portfolio level, and monitoring consistency with the capital allocation policies;
- yielding periodic analyses on the risk profile of the overall portfolio and the commercial sub-portfolios, at group level and in all individual legal entities, in terms of distribution by rating classes, Lgd and expected loss, loan deterioration rates and concentration of main customers;
- working for the supply of the input parameters to determine the pricing of products;
- verifying the accuracy of information flows needed to ensure timely control of risk exposures and the immediate detection of anomalies;
- verifying consistency of the risk measurement models with the operational processes, ensuring their adaptation to the evolution of the business;
- conducting analyses of backtesting on the rating components;
- carrying out stress tests.

The description of the organizational structure is almost always enhanced by a description of the system of attribution of powers, characterized,

according to a decentralized decision-making logic, by several deliberative levels depending on certain combinations between rating, risk and sum loaned. In order to ensure adequate quality of credit granted, to limit losses and avoid excessive concentrations, specific internal regulations govern the ways in which credit risk can be undertaken, as well as the constraints of autonomy accorded to the different figures that make up the bank hierarchy.

On some occasions banks also set credit thresholds indicating the overall amount of credit that can be granted to major economic groups. It is in this setting that some banks remind the role of branch offices, by underlying the important task of managing customer relationships and business development at local level. Such offices perform a first screening of requests, which are directly within their scope of authority and monitor daily the evolution of the relationship, to check potential default situations.

Given that the adoption of internal rating systems for supervisory purposes presupposes that such systems are subject to an internal validation and audit process —both at an early stage, for obtaining authorization from the supervisory authority, and throughout the operation— all banks approved (and those waiting to be authorized) provide a detailed description of these activities.

Box 6.2 lists the tasks falling mainly within the Validation and Internal Audit functions, which are carried out independently from one another, and from the other facilities involved in the assignment of ratings, the granting of credit, and the development of the models (Altieri Pignalosa et al. 2012).

Box 6.2 Tasks of the Validation and Internal Audit functions

Validation: evaluation of the adequacy of the system as to regulatory requirements, operational business and market needs; evaluation of the performance of systems, of the match between risk assigned to each rating class compared to historical risk observed, of the stability of ratings over time, of stress testing activities performed by the Development function; judgement on the regular operation of systems and their use in various areas of management, including through the identification of critical areas and necessary improvements; periodic issuance of recommendations to the Development function regarding the performance and use of internal systems; drafting of the report accompanying the request for authorization to the supervisory authority and of the annual report, with indications of any major issues/areas needing improvement and which must be submitted for consideration by the Development function, Internal Audit and governing bodies.

(*continued*)

Box 6.2 (continued)

Internal Audit: evaluation of compliance of the system with the eligibility conditions laid down by the supervisory authority; revision of the validation process, i.e. checking the adequacy and completeness of the analyses conducted and the accuracy and validity of the results; account of the effective use of internal systems for management purposes and on the integrity and reliability of the information system; periodic issuance of recommendations to the Development and Validation functions regarding the performance, operation and use of the internal systems; preparing the accompanying report to apply for authorization of the supervisory authority and the annual report.

Characterized by a certain degree of complexity, the information related to the most technical and operational aspects of internal rating systems, such as those related to credit risk measurement, are sometimes presented unevenly. In some cases there is a preliminary indication of distinctive elements of the rating systems adopted, such as the concept of default compliant with supervisory regulations, the counterparty approach, the assignment of a single rating in the banking group level, the segmentation of models coherent with the regulatory approach, the need to use homogeneous models within the identified segments, the determination of the rating depending on the type of the counterparty through integration of a statistical component and the possibility of overriding the rating review on annual basis (unless deterioration signals require increasing frequency), the adoption of a single master scale for all exposures, the mapping of Pd with respect to a given external rating scale in order to allow comparability of internal risk measures with those available on the financial market.

There is also reference to the organization of training activities, aimed at optimizing the correct use of new tools, based on sharing—according to a top-down logic—of rating models from all organizational structures involved (from Risk Management to customer managers).

However, the most important aspects in this section concern the description of the criteria for customer segmentation and of the construction and working of the rating models. The range of the latter shows increasing levels of complexity and a tendency to be more judgmental owing to the increasing relevance of the counterparty, distinguishing even among domestic and international customers,—where the bank's

business justifies it. In the more evolved contexts it also takes into account the characteristics of Lgd and Ead models.

In general there is a tendency to segment the portfolio of enterprises according to certain variables (size, turnover, level of financing, legal status, but also geographical location and business sector) which, when properly combined, allow homogeneous clusters in terms of riskiness to be obtained.

The estimation of each rating model relies on specific information resources (typically, budgetary or financial information, internal monitoring and external or system monitoring information, and qualitative information), whose predictive ability is supported by the adoption of a modular approach. The elementary modules are then integrated (sometimes just a few, and in any case each with its own weight depending on the business segment, and in some cases depending on the pre-existence and seniority of the relationship), generating a score, which represents the risk assessment, obtained through a statistical function that summarizes available information using a set of significant variables capable to detect the default in a given time horizon (12 months). The integrated statistical score is then translated into rating classes which correspond to a certain default probability. At this point the intermediary may decide (once again in the light of the peculiarities of the customer) to integrate the automatic model with additional information components, which do not lend themselves to statistical processing, as well as discretionary changes by the operator to the rating (override).

Box 6.3 shows some experiences of customer segmentation and determination of the probability of default. (Altieri Pignalosa et al. 2012)

Box 6.3 Customer segmentation and determination of Pd

Bank A

Small Business: limited companies, individual firms, small economic operators and private individuals with a VAT number, with a turnover of less than €5 million and credit lines for amounts of less than €1 million (also considered as exposure to the banking group level).

Areas of analysis

- financial: the information is acquired from financial and tax statements and it is differentiated by legal status and accounting scheme of the company;

(*continued*)

Box 6.3 (continued)

- internal monitoring: the information regards the credit behaviour of the company towards the banking group;
- external monitoring: the information relates to the credit behaviour of the company towards the entire banking system.

The three modules together contribute to an integrated statistical score, classified into nine rating categories onto which a qualitative module (business information), monitoring events (if they arise, an automatic downgrade occurs) and override (rating changes are based on subjective assessments by the relationship manager) are added.

Small and Medium Enterprises (SMEs): companies with turnover of between €5 million and €50 million or with a turnover of less than €5 million (or no turnover) but with credit lines of between €1 million and €12.5 million, at both the individual institution and at the banking group level.

Areas of analysis (when not specified, reference is to the previous segment)

- financial;
- internal and external monitoring;
- qualitative: developed using statistical methods on the internal customers of the bank, it refers to the information on the corporate structure and the context of reference.

The integrated statistical score, determined and classified into nine rating categories, engages the monitoring actions and the override.

Large Corporate: companies with a turnover exceeding €50 million or credit limit greater than €12.5 million.

Areas of analysis (when not specified, reference is to the previous segment)

- financial;
- external monitoring.

The integrated statistical score, determined and classified into seven rating classes, engages the qualitative module (expert analysis of the sector's strategic risk, the economic and financial risk, the internal monitoring and belonging to economic groups), the monitoring actions and the override.

Bank B

Distinction between Italian and international customers.

Corporate Italy (*unrated*): companies or groups of companies with the banking group's exposure greater than €1 million or consolidated turnover of €2.5 million.

Areas of analysis

A quantitative and a qualitative module are considered; they generate an overall rating, on which the proposing manager may act (override).

(*continued*)

Box 6.3 (continued)

The initial score is calculated by a linear combination of appropriately transformed variables from two quantitative areas: financial and monitoring.

The model is optimized for turnover band and is called Financial when only the financial information is available; it is called Financial-Monitoring when the previous information set is completed by the data related to the behaviour of the company towards the whole banking system.

The quantitative and qualitative module is compared with an internal monitoring indicator, which in some cases has the effect of worsening the risk class.

The qualitative module consists of a questionnaire through which the manager expresses a valuation in structured form.

Large Corporate Italy (*unrated*): companies with annual turnover exceeding €500 million.

Areas of analysis

The analysis relies on a specific qualitative questionnaire taken, with appropriate adaptations, from the one used for the evaluation of international companies.

The output of the model is decomposed into several areas of analysis: economic and financial (data on profitability, debt service, working capital management and capital structure); qualitative; and monitoring.

For each area of analysis the manager is required to provide an independent assessment (override), which interacts with the output, determining the final rating.

Corporate International

Rating is assigned according to different models, developed using the rating issued by external agencies as a target variable for estimating (shadow rating approach). This choice depends on the small number of defaults recorded in this segment in the intermediary's historical database.

The override procedure is activated by a comparison with the external rating agency, if available, or by providing an assessment of several areas of analysis, similar to Corporate Italy unrated.

Large Corporate International: non-resident companies with a turnover exceeding €500 million (it includes also the Corporate Italy rated).

Rating is assigned using a model consisting of a quantitative and a qualitative module, which generate an overall rating, on which the proposing manager may act, modifying it according to the rules defined in the override process.

The quantitative module is estimated on a sample of foreign companies with ratings issued by external agencies and produces a score that is the linear combination of financial ratios.

(*continued*)

Box 6.3 (continued)

The qualitative module consists of a questionnaire divided into two areas of analysis (industry and competitive positioning, and specific characteristics of the company). The two sides of the qualitative module provide scores that are integrated statistically with the quantitative score.

International Middle Market: non-resident companies with turnover below €500 million.

It is characterized by the presence of a single module containing both quantitative indicators—automatically fed from the financial statements—and qualitative indicators, integrated into a linear combination.

The information concerning Lgd and Ead models is less detailed. For the Lgd models the most frequently recurring information concerns: the methods for calculating it on the basis of historical evidence of defaulted operations with similar characteristics (workout Lgd); the definition of default used (corresponding to that used for the Pd models); the choices made in terms of customer segmentation; the adjustment of estimates to take account of adverse economic cycles (downturn Lgd); only in some cases the main steps of the entire estimation process.

In some cases, mention is also made of the portfolio models for measuring the aggregate level of risk and possible effects of undesirable concentrations. In addition to mentioning risk indicators such as the expected loss, capital at risk (based on credit-VaR metrics) and the expected shortfall, banks also dwell on the objectives associated with the adoption of similar models. They provide, for example, measures of economic capital in order to establish risk-adjusted performance indicators, operational and risk concentration limits, as well as performing stress testing analysis on the credit portfolio, starting from macro-economic variables that affect the various customer segments.

To understand the extent to which the rating systems permeate the credit process, regardless of regulatory choice made by intermediaries for the purposes of calculating capital requirements for credit risk (IRB versus Standardized Approach), it is interesting to analyse whether and to what extent the internal rating systems are fully integrated into the decision process and into the management of operations, according to the enhancement of the use test principle.

The use of rating systems is usually connected to the granting of credit and its monitoring, pricing techniques, the calculation of economic capital, strategic planning, the provisioning policies and reporting.

Indeed, it is in the phase of granting that the rating plays a vital role in terms both of counterparty risk assessment and of defining the decision-making autonomy within the system of attribution of powers. The monitoring activity seeks to identify, and if necessary adjust, the first signs of deterioration in the borrower's creditworthiness.

The credit risk parameters also contribute to the definition of the risk-adjusted pricing, to the calculation of risk-adjusted performance, as well as to value management. The output of the rating systems are in fact integrated into capital measurement processes, in the sense of both regulatory and economic capital, thus contributing to the creation of value in the recognition of the objectives of the business units and in performance measurement.

The relevance of the rating also becomes evident in the context of strategic planning, budgeting, and forecasting for the quantification of RWAs and impairment adjustments, to name a few.

Moreover, the ratings are frequently used in management reporting, with specification of the content: for example, the Ead, the expected loss, the Pd and Lgd (all with reference to the various customer segments), the absorbed capital (both regulatory and economic), the specific metrics for each individual risk, such as the sensitivity and the expected loss. Additional reporting information refers to the supervisory function (mostly Risk Management) and the frequency (generally quarterly).

Another aim of ratings is to set the pricing and management by objectives to be allocated to managers, as well as to identify customers with negative economic value added, against which targeted actions can be taken. In some cases, it is stated that the bonus system of the commercial business units provides risk-return indicators anchored to the estimation of the Pd.

Moreover, detailed information can be found in the application of credit risk mitigation techniques. The indication of the type of guarantees accepted is shared by most banks—which emphasizes their function of integration in the credit risk assessment process. The most frequent reference is to the guarantees typical of banking, both real and personal, while mention of Mutual Guarantee Institution activities is more limited; quite recurring is, however, the description of the securitization transactions carried out.

The most relevant aspect emerging from all this is the process of developing procedures and information systems that safeguard adequate guarantee management: although it is broadly defined in a few intermediaries, it is becoming more widespread in all the others, but at different levels of advancement. In line with a vision of progressive compliance with supervisory provisions, banks are strongly oriented to define organizational and IT solutions that must accompany all the phases of the entire life cycle of credit risk mitigation instruments (acquisition, evaluation, control and recovery). The final goal is to safeguard the on-going ability of credit guarantees to be effective for credit risk mitigation purposes, limiting the occurrence of other risks. All these aspects are often formalized in specific internal regulations, highlighting the roles involved and related responsibilities.

The focus on monitoring activities and impaired loans closes the analysis on credit risk management. In this area information is about the procedures and criteria implemented for the evaluation of non-performing loans. Such loans are classified consistently with the supervisory regulations and internal provisions, which for example establish criteria and rules, whether or not automatic, for the reclassifications between the various loan categories. Additional information is provided on the quantification of such loans in absolute and relative terms (that is compared to the main balance sheet items).

We also find information on the monitoring process, defined as the set of activities and skills aimed at seizing potential deterioration of the exposures, and to decide on the transition of bad loans to the recovery step if necessary. Credits are in fact subject to regular review, which aims to detect those indicators suitable for signalling a possible deterioration of the exposure quality. In keeping with formalized organizational procedures, monitoring activities therefore aim to promptly ascertain the occurrence of negative signals and carry out, promptly and effectively, the actions needed to prevent further degradation. Early warning systems implemented by intermediaries tend to focus on the analysis of some indicators, such as the overruns and the overdue exposures as well as the loss of value of the guarantees and the anomalies reported, for the whole system, by the Bank of Italy.

Within a well-defined framework, an important role is often assigned to the territorial structures (branch offices) which, entertaining direct relations with customers, are able to perceive immediately potential fault signals.

For the purpose of effective monitoring, reporting is also important—provided that it is accurate and systematic. In this regard frequent mention is given to the definition of the drafting criteria of reports, the verification of compliance with the reporting guidelines established by internal policies and the regular production of comprehensive reporting in favour of the operational areas and top management.

6.4 Examples of Business Segments Focusing on Corporate Customers

In closing this chapter, it is interesting to draw attention to the main content of business segments specifically dedicated to companies. Hence we consider the experience of the two major Italian banking groups, UniCredit and IntesaSanPaolo, whose greater operational complexity allows an appropriate description of such business. For both banking institutions, the characteristics of the business segments for firms are described, emphasizing the areas of intervention and the ability to contribute to the overall results of the group, and the underlying decisions adopted at organizational level. The key features relative to the 2014-2015 period are reported (UniCredit 2016; Intesa SanPaolo 2016).

In relation to corporate customers, UniCredit identifies the Commercial Banking Division (distinguished by geographic area: Italy, Germany and Austria) and the Corporate and Investment Banking Division (UniCredit 2016).

Commercial Banking Italy is composed of UniCredit SpA, a commercial network related to Core clients (excluding Large Corporate and Multinational clients, supported by the Corporate and Investment Banking Division), Leasing, Factoring and the local Corporate Centres with supporting functions for Italian businesses. Commercial Banking Italy supports the economic and entrepreneurial system thanks to the territorial organization (about 765 Managers divided in 129 Corporate Centres), that contributes to bringing the bank closer to customers and

accelerating decision-making processes; at the same time, belonging to UniCredit Group allows it to support companies in developing international attitudes.

Commercial Banking Germany provides all German customers (excluding Large Corporate and Multinational clients, supported by the Corporate and Investment Banking Division) with a diversified set of products and services through a network of about 580 branch offices. Commercial Banking Germany holds a strategic market position in business with local corporate customers (in addition to retail and private banking), including factoring and leasing. The specific, all-round advisory offering, reflects the individual and differentiated needs of the customers in terms of relationship model and product offering.

Commercial Banking Austria provides all Austrian customers (excluding Large Corporate and Multinational clients, supported by the Corporate and Investment Banking Division) with a diversified set of products and services. It is composed of Retail, Corporate (excluding Corporate and Investment clients), Private Banking, Factoring and Leasing and the local Corporate Centre Retail; in particular, Corporate covers the entire range of business customers, SMEs and medium-sized and large companies that do not access capital markets (including Real Estate and Public Sector). The goal of the Division is to strengthen regional responsibility, to increase synergies and effectiveness, and improve time-to-market; therefore customer service teams adjust more quickly to local market changes.

On the other hand, the Corporate and Investment Banking (CIB) Division targets Large Corporate and Multinational clients (as well as institutional clients) with highly sophisticated financial profiles and the need for investment banking services. CIB serves clients across 50 countries supporting them in growth, internationalization projects and restructuring phases. The organizational structure of CIB is based on a matrix that distinguishes: (1) market coverage, carried out through the Group's country-specific commercial networks: Italy, Germany and Austria; and (2) product offering, divided into three product lines (described below) that consolidate the breadth of the Group's CIB know-how. The dedicated country-specific commercial networks (CIB Network Italy, CIB Network Germany and CIB Network Austria) are responsible for the relationships with corporate clients (in addition to banks and financial

institutions) as well as the sale of a broad range of financial products and services: traditional lending, merchant banking operations and sophisticated services, such as project finance, acquisition finance and investment banking operations in international financial markets. The three product lines supplement and add value to the activities of the commercial networks and the marketing of the relevant products.

- *Financing and Advisory*: operations relating to credit and advisory services for corporate (and institutional) clients. It is responsible for providing a wide variety of services ranging from standardized products to more sophisticated products, such as Equity and Debt Capital Markets, Corporate Finance and Advisory, Syndications, Leverage Buy-Out, Project and Commodity Finance, Real Estate Finance, Shipping Finance, Structured Trade and Export Finance, and Principal Investments.
- *Markets*: financial market-related activities, including the structuring of products related to rates, credits, etc.
- *Global Transaction Banking*: Cash Management and e-banking products, Supply Chain Finance, Trade Finance, etc.

In 2015 Commercial Banking and CIB Division set up a joint venture with the objective of increasing cross selling of Investment Banking products such as Merger & Acquisitions, Capital Markets and Derivatives to Commercial Banking clients.

Table 6.2 shows the key figures by business segment for 2014 and 2015 (UniCredit 2016).

Turning to Intesa SanPaolo, two divisions are of interest: Banca dei Territori and Corporate and Investment Banking (Intesa Sanpaolo 2016). The former oversees the core business, that is the traditional lending and deposits collecting activities in Italy and related financial services. The latter deals with corporate banking, investment banking and public finance in Italy and abroad.

Similarly to UniCredit, in Table 6.3 2014 and 2015 key figures by business segment are reported (Intesa SanPaolo 2016).

In the 2014–17 Business Plan the Intesa Sanpaolo Group has introduced various objectives. Among these, to represent a leader in retail and corporate banking in Italy and other countries. According to a divisional model the Group aims also at strengthening and further simplifying the

Table 6.2 UniCredit—key figures by business segment

	Commercial Banking Italy	Commercial Banking Germany	Commercial Banking Austria	Corporate & Investment Banking	Consolidated Group Total
	Income Statement (€ million)				
Operating Income					
2015	8,590	2,701	1,583	3,757	22,405
2014	8,407	2,642	1,710	3,759	22,552
Operating Costs					
2015	(4,231)	(2,016)	(1,335)	(1,759)	(13,618)
2014	(4,163)	(2,059)	(1,373)	(1,649)	(13,507)
Operating Profit					
2015	4,359	685	248	1,998	8,787
2014	4,244	583	337	2,110	9,045
Profit Before Tax					
2015	2,372	439	340	1,661	2,671
2014	3,087	667	134	1,820	4,091
	Balance Sheet and RWA (€ million)				
Loans to Customers					
31.12.2015	132,279	80,431	49,305	96,876	473,999
31.12.2014	130,190	78,416	47,379	89,225	470,569
Total RWA					
31.12.2015	75,775	31,488	22,085	65,382	390,599
31.12.2014	80,603	33,608	24,047	68,631	409,223
	INDICATORS				
Cost income ratio					
2015	49.3 %	74.6 %	84.3 %	46.8 %	60.8 %
2014	49.5 %	77.9 %	80.3 %	43.9 %	59.9 %
Employees					
31.12.2015	37,325	11,781	6,439	3,918	125,510
31.12.2014	37,316	13,333	6,658	3,954	129,021

business model of Banca dei Territori, in order to take into account the evolution in customers' demands. Another goal is to carry out the role of 'local bank abroad' for Italian companies. To this end, the Plan introduces some initiatives (e.g., "Core Growth Bank"), aimed at capturing the untapped revenue potential of existing business, in terms of revenue development, reduction in operating costs and credit and risk governance.

Table 6.3 Intesa SanPaolo—Key figures by business segment (millions of euro)

	Banca dei Territori	Corporate & Investment Banking	Consolidated Group Total
Operating Income			
2015	9,255	3,109	17,149
2014	9,467	3,075	16,828
% change	–2.2	1.1	1.9
Operating Costs			
2015	(4,986)	(931)	(8,816)
2014	(4,966)	(872)	(8,606)
% change	0.4	6.8	2.4
Operating Margin			
2015	4,269	2,178	8,333
2014	4,501	2,203	8,222
% change	–5.2	–1.1	1.4
Net Income (Loss)			
2015	1,199	1,347	2,739
2014	908	1,194	1,251
% change	32.0	12.8	19.0
Loans to Customers			
31.12.2015	184,750	89,691	350,010
31.12.2014	183,701	82,385	339,002
% change	0.6	8.9	3.2
Total RWA			
31.12.2015	90,942	89,740	284,319
31.12.2014	92,491	80,198	269,790
% change	–1.7	11.9	5.4
Absorbed Capital			
31.12.2015	8,185	8,077	30,167
31.12.2014	8,324	7,219	28,613
% change	–1.7	11.9	5.4

6.5 Conclusions

The crucial role of lending is largely confirmed by evidence on a global scale. European banks in particular show a prevalence for lending over other activities carried out and higher levels of profitability in granting credit compared to those connected to financial intermediation. The centrality of the core business hence highlights the great opportunities deriving from the development of the bank-firm relationship and consequently the need to actively intervene on it to take account of the several changes in the market and in the regulations.

Such efforts must be reflected in the adoption and implementation of proper credit risk measurement and management, and in the development of business areas, which emphasize the support to firms by offering highly tailored and more sophisticated financial services.

Following this logic, evidence confirms that the banking trend is to foster the relationship with enterprises by the effective use of both actions. Indeed more appropriate credit policies and strategies along with a more tailored offer characterize the current banks' business segments focused on corporate customers.

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[1] Note: Page numbers with "n" denote notes.

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