

The Impact of Capital Requirements on Companies' External Financing

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The new prudential standards implemented by the Basel Committee treat banks' capital as a foundation for safety. The appropriate level of bank's capital helps to manage all kinds of risks with the special attendance on credit risk. The adequate capital base enables absorbing losses and maintaining bank's stability. The necessity to fulfill the capital requirements influences banks' credit policy and, as a result, the access to companies' external financing. The main purpose of the paper is to present the impact of the capital requirements implemented by Basel Committee (Basel III requirements) on companies' access to external finance. The paper discusses the changes in credit standards, the companies' external financing and formulates the prerequisites for the further development of companies' external financing. The paper contains the empirical data for largest European euro area countries regarding the GDP.

Keywords: equity regulations, capital adequacy, companies' external financing, credit standards

Introduction

Since the beginning of the recent financial crisis, among different factors influencing banks' market activity, the regulatory pressure is the most important one. Never before the scope and the scale of regulations has been so broad and comprehensive. Most of them focus on the adequate level of banks' capital that is to be a guarantee of potential losses absorption and overall stability.

The role of capital, especially equity capital, has been recognized from the very beginning. It has become a basis of prudential regulations since 30. last century (Marcinkowska, 2005). A milestone for the regulation was the introduction of a capital measurement system by Basel Committee in 1988. It was presented in the Basel Capital Accord (Basel I) and Basel Committee on Banking Supervision (1988) established a synthetic measure of the capital adequacy ratio (CAR) which is known as Cooke ratio (total capital ratio - TCR, capital to risk weighted assets ratio - CRAR). This ratio determined the level of capital that banks required for safe market activity and was defined as a relation between bank's capital base (own funds, consisting of Tier I capital, as a basis to cover losses, and Tier II capital as supplementary capital for a bank) and risk-weighted assets. The level of this ratio should be at least 8% (Iwanicz-Drozdowska, 2012). The assets and non-balance sheet liabilities were divided into four classes according to risk weight (0%, 20%, 50%, and 100%). The system was quite simple but did not prevent varying the level of risk within the class (Marcinkowska, 2010).

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The dynamic changes in the situation on the financial markets caused the necessity to incorporate other kinds of risk into capital requirements. Despite the credit risk, The New Basel Capital Accord (Basel II) took into account a price (market) risk and an operational risk (Basel Committee on Banking Supervision, 2004). The final version of the concept was published in 2006 (Basel Committee on Banking Supervision, 2006). It defined a new category of capital called the economic capital. Economic capital is a minimum value of own funds that secures all unexpected losses taking into account bank's preferences regarding the accepted level of risk (Adamowicz, 2005). According to Basel II, managing capital adequacy should address the minimum requirements for capital adequacy (including credit risk, market risk, and operational risk), relate the level of the own fund to the scale and risk profile of bank's business, and support monitoring of market performance through increasing the range of information disclosed by banks. As a result, capital requirements according to Basel II are much more correlated with the risks incurred by a bank. On the other hand, it was much harder to interpret and apply. It was also criticized for its negative impact on developing countries, large banks' domination of the system, and its pro-cyclicality (Marcinkowska, 2010).

The beginning of The New Basel Capital Accord's implementation coincided with the first symptoms of the recent financial crisis. The need for more sophisticated regulations appeared. In December 2010, the Basel Committee published two documents, which significantly changed the rules of the banking institutions functioning after the financial crisis (Basel III) (Basel Committee on Banking Supervision, 2009). The Basel III framework will come into force successively until 2019¹.

All these regulations have changed the regulatory environment and banking market conditions. For some banks, meeting the new capital requirements is still a challenge. These new rules and regulations will have an impact not only on banks but also on credit-seeking companies. The purpose of the paper is to present to what extent Basel III regulations influence the development of credit standards and the access to external financing for enterprises. The authors' analysis includes the case of five largest countries in Euro area regarding the GDP. The time scope of the research starts from 2011 (the year after Basel III framework publication) till 2015. The paper analysis data were gathered by European Central Bank in a survey on the access to finance of enterprises.

The Development of Credit Standards

Basel III recommendations make banks focus on credit standards and take into account borrowers' creditworthiness in the assessment of risk weight. The use of ratings as a tool for maintaining the capital adequacy and the assumed level of risk costs has resulted in new borrowers' segmentation and correlating bank's capital not only with the quantity but also with the quality of loan portfolio (Gwizdała, 2011).

Rating's usage has changed the quality of relation between the banks and borrowers. The rating essence is to assess the company's capacity to meet liabilities arising from issued debt. For banks, the difficulties in debt repayment or the loan default equal to an increase of the level of risk that should be compensated by a capital increase. In this case, banks bear the costs of raising capital and its immobilization as a loss reserves (Cichorska, 2012).

The contemporary risk management methods influence companies' behaviour and they necessitate meeting higher bank's requirements. Today companies' assessment is more detailed and complicated which makes the credit procedure more expensive and lengthy. The rating of a company depends very strongly on the

¹ See more about Basel III regulation in Hofbauer, Nocoń, and Klimontowicz (2016).

future perspectives and the ability to generate profits. The basis for classifying a company to high rating class is a transparent reporting of the business. It means the open and straightforward communication to a bank concerning not only financial statements but also information about company's ability to create, deliver, and enhance value for customers. The assessment of company's preparedness to the future challenges, its sustainability and profitability of the business requires answering specific questions about the enterprise. They include information about factors of success, sources of competitive advantage, the efficiency of business processes, enforcing valuable prices, suppliers' relationships and preparation for rating (Hofbauer, Klimontowicz, & Nocoń, 2016). The companies with high risk weight have strong position during the credit conditions' negotiation and broad access to external sources of financing.

Bank's creditworthiness rating may use external ratings offered by rating agency (as Moody's, Standard & Poor's, Fitch or DBRS) and correlate the risk weight with the rating class (see Table 1). The various rating classes also equal with different credit costs. As a result, companies included to prime class will obtain a loan on more favorable terms.

Table 1

Risk Weight for Standard & Poor's Rating

Rating	Risk weight (w %)
AAA to AA-	20
A+ to A-	50
BBB+ to BB-	100
Below B-	150
Without rating	100
Past due loans (over 90)	150
Tranches of securitisation with a rating from BB+ to BB-	350

Note. Source: Cichorska (2012).

The barrier to external ratings' usage is their expensiveness. This problem might be solved by internal banks' ratings. The advanced rating methods take into account both quantity information based on financial statements and the quality information focused on the assessment of company's business model. The most important issues which will give comprehensive indicators and measures derive from the business model structure (see Figure 1). The assessment of business model adequacy to market conditions allows evaluating risk included in business and the probability of company's market success. The rating should incorporate six dimensions (Hofbauer & Bergmann, 2013):

- (1) Management, organisation, and processes;
- (2) Markets and branches;
- (3) Marketing and sales;
- (4) Customers and suppliers;
- (5) Products and processes of products' development;
- (6) Controlling and auditing.

This kind of rating has a larger scope than external ratings because they might be used for small- and medium-sized enterprises which cannot afford for external ratings.

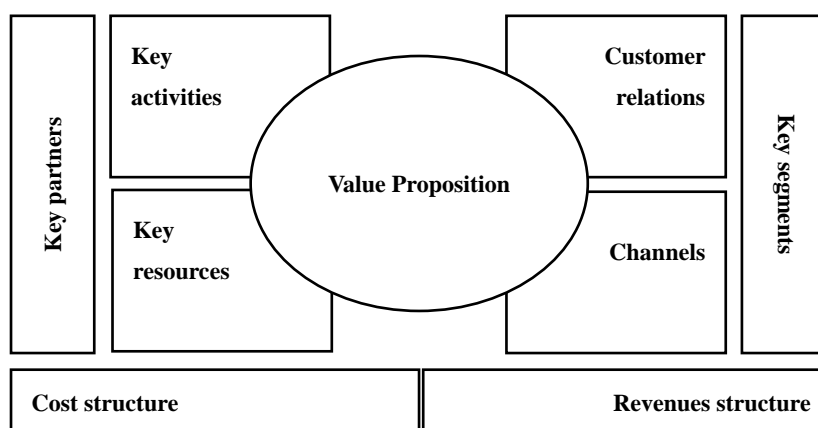


Figure 1. The structure of business model. Source: Own work based on Osterwalder and Pigneur (2012).

The task for the companies is to disclose information on these dimensions in a coherent and documented way for the banks. The task for the banks is to evaluate and examine gathered information.

The changed attitude to bank's risk management results in credit standards' improvement. Since Basel III implementation, they continue to support a recovery in loan growth. Since 2011 till the middle of 2014, the credit standards on loans to enterprises had tightened in net terms. Since then, credit standards eased. In this period, banks reported a continued net easing of credit standards on loans to enterprises (-2% on average) (see Table 2).

Table 2

The Development of Credit Standards in 2011-2015 (Net Percentage of Banks Reporting Tightening Credit Standards)

Country	Credit standards																			
	2011				2012				2013				2014				2015			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Euro area	0	2	1	9	17	5	5	7	7	3	3	2	1	0	-1	-1	-3	-5	-2	-2
Germany	-2	-6	0	0	0	3	0	3	3	-5	0	-2	2	0	0	-2	0	-2	2	0
Spain	0	0	0	0	5	0	0	0	5	5	0	0	0	0	0	0	0	0	0	0
France	-1	0	-5	9	20	-2	2	0	6	0	0	0	0	0	-1	-2	-3	-3	-1	2
Italy	0	13	13	25	50	13	13	19	6	6	13	13	6	6	-6	0	-13	-13	-13	-19
Netherlands	-7	-7	-14	7	7	7	0	14	14	21	36	7	0	-7	0	7	7	-6	0	0

Note. Source: Own work based on ECB Bank Lending Survey Statistics' data (<http://sdw.ecb.europa.eu/>).

Banks credit standards differ in the five largest countries in Euro area regarding the GDP. During the last five years, generally credit standards on loans to enterprises remained unchanged in Germany and Spain and tightened in Italy, France, and Netherlands. In Italy and France, the situation changed in the middle of 2014. Since then, banks operating in these countries have reported a continued net easing of credit standards on loans to enterprises.

As regards the likely impact of ongoing regulatory or supervisory changes, in 2015, banks reported the further strengthening of their capital positions and a reduction in risk-weighted assets predominantly related to riskier loans. Competition remained the main factor driving the easing in banks' credit standards on loans to enterprises. Risk perceptions contributed only marginally to an easing. By contrast, the cost of funds and balance

sheet constraints and banks' risk tolerance remained broadly neutral. As a result, for the first quarter of 2016, banks expect a further net easing in standards on loans to enterprises (-4%). Banks continued to ease terms and conditions for new loans across all loan categories, and again particularly for companies. The reduction in margins on average loans remains the main driver of the easing across all categories of lending. Similar to credit standards, competition continued to contribute the most to the net easing of terms and conditions.

Enterprises' Needs and Access to Finance

Most analyses of the capital requirements' impact on economic growth focus on credits and loans. Changes in this field influence the assets' level and structure (Marcinkowska, Wdowiński, Flejterski, Bukowski, & Zygierewicz, 2014). They also have macroeconomic consequences because they impact the credit supply. Concurrently, negative shocks for aggregate demand decrease the companies' ability to repay their debts. As a result, the level of banks' profits and capital decreases. Thus, the capital requirement may lead to lending limitation and investments (Blum & Hellwig, 1995).

Bank-related products remain the most relevant source of finance for enterprises. The use of external funding increases with the size of the firm. According to ECB survey on the access to finance of firms in the euro area (European Central Bank, 2016a), large firms are consistently reporting higher percentages than SMEs across all instruments (see Figure 2). Regarding the type of funding, short-term bank finance (credit line/bank overdraft/credit card), followed by long-term bank loans, leasing and trade credit, is the most often used by micro and small firms. Likewise, credit lines are also the most often reported financing instruments for medium and large enterprises, while leasing, followed by bank loans (long-term and short-term) and internal funds, is another external financing source most often used by medium and large firms. It remained stable in 2011-2015 (see Figure 3).

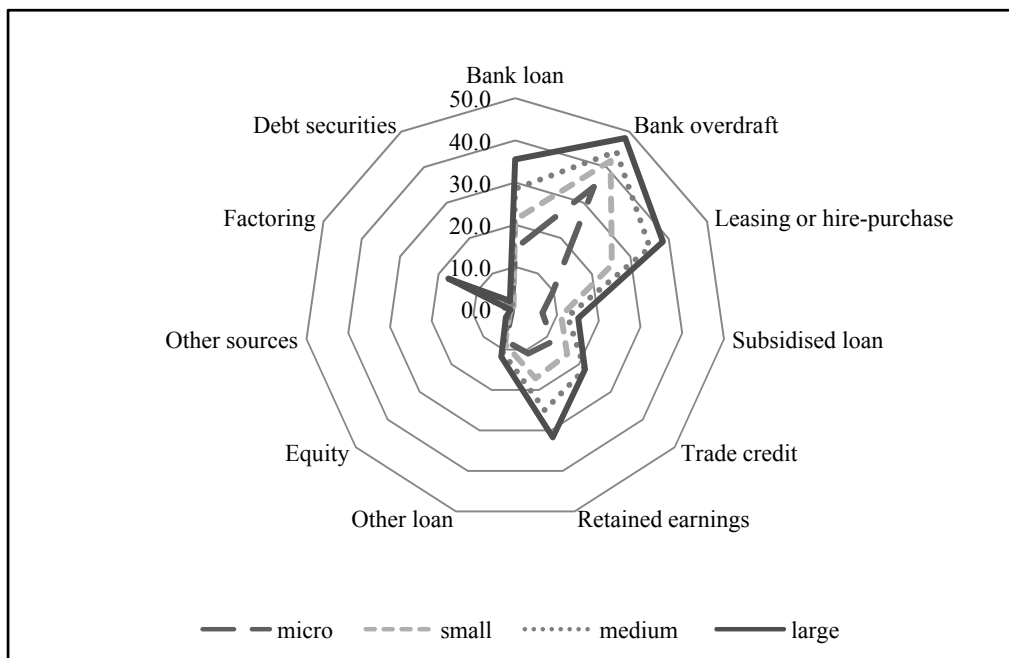


Figure 2. The use of internal and external funds by Euro area enterprises across firm size.
Source: Own work based on ECB data (<http://sdw.ecb.europa.eu/>).

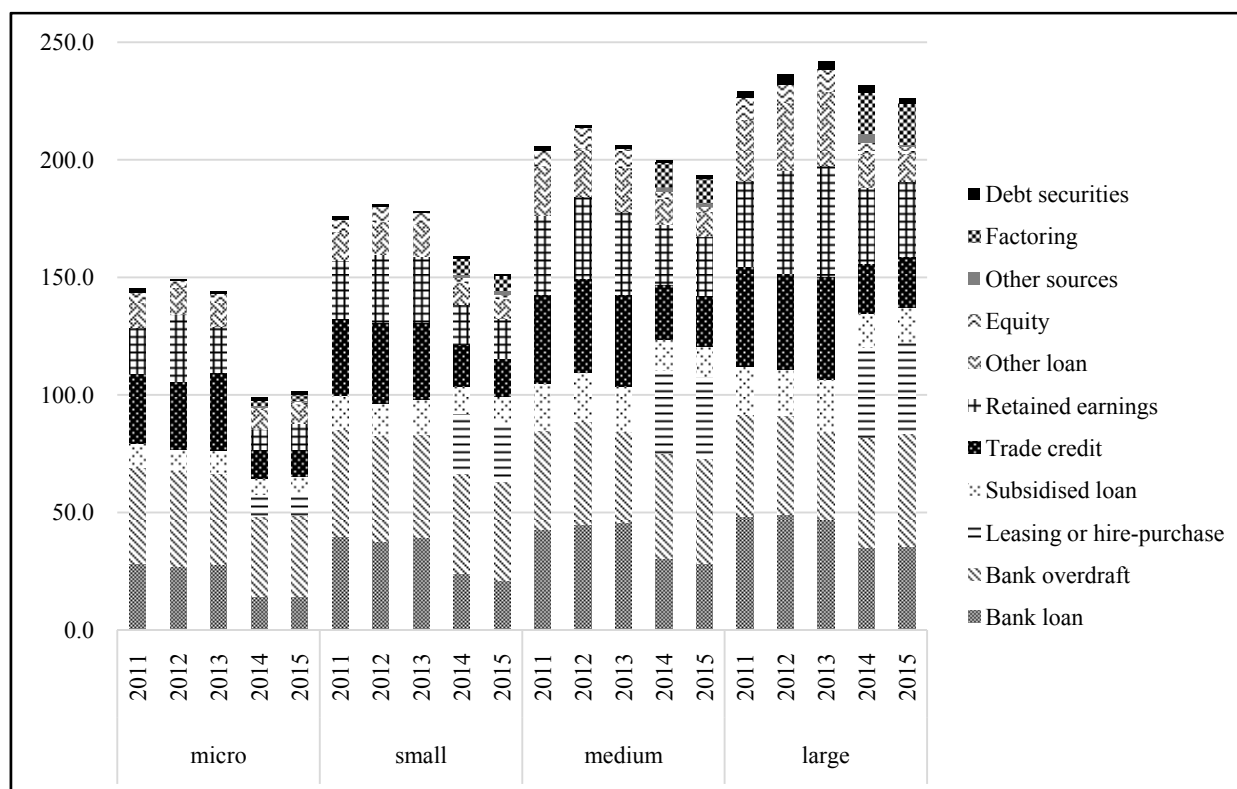


Figure 3. The use of internal and external funds by Euro area enterprises across firm size over the period 2011-2015.

Source: Own work based on ECB data (<http://sdw.ecb.europa.eu/>).

In the considered period, loan demand by enterprises has been changing. During the first three years after publishing Basel III, the demand decreased all over the Europe. Since the second quarter of 2014, it has been increasing systematically. In Germany and Spain, this process started a little bit earlier, at the beginning of the year. France follows European trend while in Italy and the Netherlands, the loan demand increased in 2015 (see Table 3). Generally, at the beginning of 2016, net loan demand by enterprises increased further considerably to 27%, up from 16%, and banks expect a similar rise in demand from companies in the next quarters. Figure 4 presents factors connected with enterprises needs and contributing to loan demand.

Table 3

The Loan Demand in 2011-2015 (Net Percentage – Frequency of Tightened Minus that of Eased or Reverse)

Country	Loan demand																			
	2011				2012				2013				2014				2015			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Euro area*	11	20	7	-5	-5	-32	-31	-29	-31	-28	-22	-12	-9	2	5	6	19	1	13	16
Germany	23	38	31	8	7	-19	-6	-6	-3	0	-13	3	-9	0	3	6	22	0	6	13
Spain	0	10	10	-10	-	-20	-10	-30	-30	-50	-20	-10	10	20	20	20	40	30	20	0
France	-2	14	-1	-3	-9	-22	-46	-48	-30	-30	-27	-13	-15	4	-2	17	13	-3	-6	8
Italy	25	25	0	13	0	-75	-63	-50	-63	-38	-38	-13	-13	0	0	-13	0	0	38	38
Netherlands	19	40	16	-2	3	-53	-49	-5	-71	-51	-25	-50	-28	-24	-22	0	23	-57	40	55

Note. *: Changing composition, weighted net percentage (tightened minus eased or reverse) based on the share of each country in the total loan outstanding amounts of the area aggregated and of each bank in the total loan outstanding amount of BLS sample.

Source: Own work based on ECB Bank Lending Survey Statistics' data (<http://sdw.ecb.europa.eu/>).

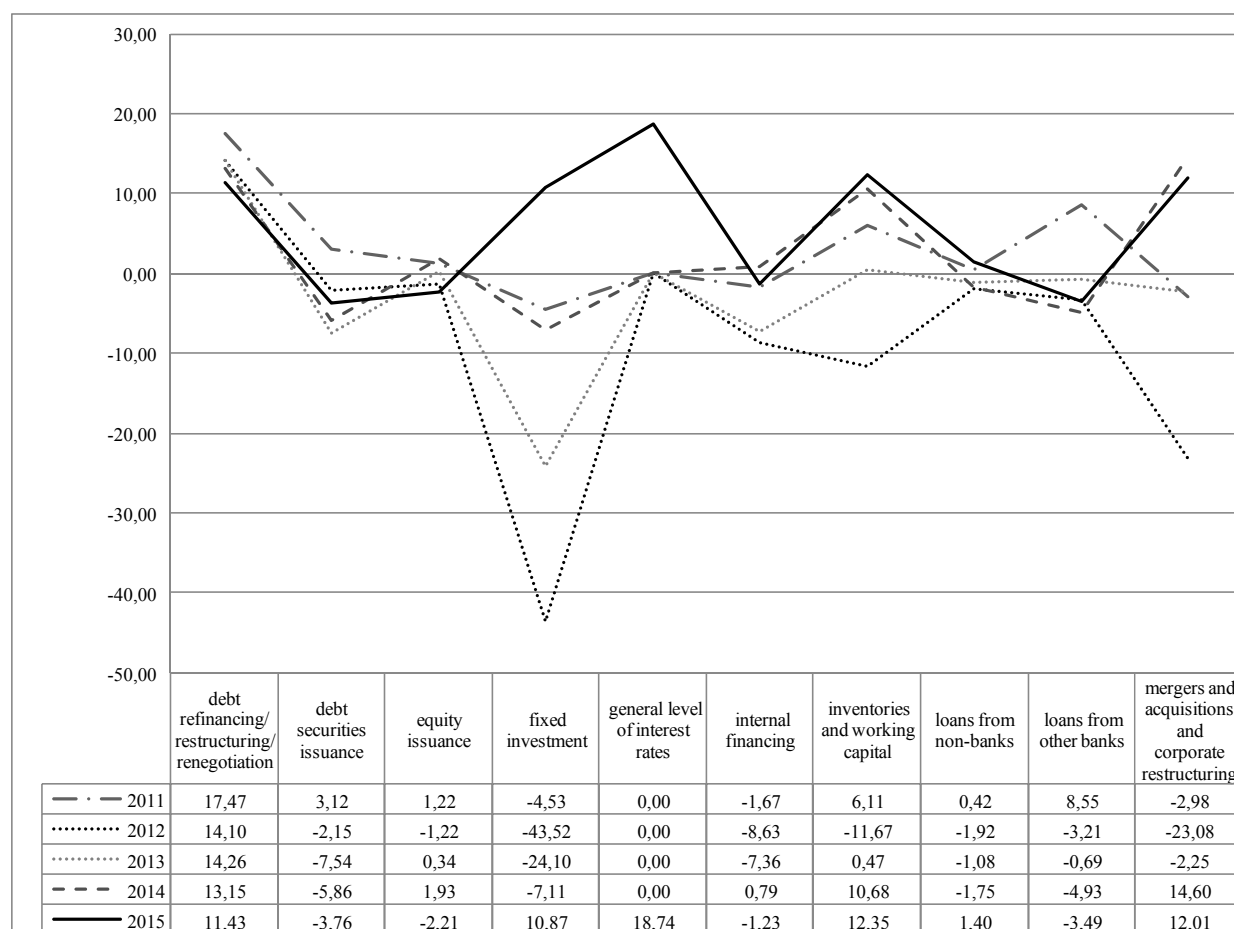


Figure 4. The impact of different factors contributing to loan demand over the period of 2011-2015.

Source: Own work based on ECB Bank Lending Survey Statistics' data (<http://sdw.ecb.europa.eu/>).

According to banks, in 2016, the low level of interest rates remained a key contributing factor to increased demand. Financing needs related to working capital and fixed investment were additionally underpinning demand. Other financing needs complemented the positive demand for loans. The latter reflects the demand for debt refinancing and renegotiation and the financing needs for mergers and acquisitions' activities. The use of alternative finance continued to have a slightly dampening effect on net loan demand by euro area firms. In particular, the issuance of debt securities by enterprises and internal financing contributed negatively to loan demand. Across the large euro area countries, the low level of interest rates contributed significantly to increased loan demand in all countries but to varying degrees. Financing needs for inventories and working capital were of particular relevance for loan demand in Italy and Spain but also contributed positively in Germany, while the effect was negative in France and – to a much lesser extent – in the Netherlands. Financing needs related to fixed investment increased in all countries, except France and the Netherlands, and constituted the primary driver of loan demand in Germany. Other financing needs also had a positive impact on banks in most large countries, except Spain. By contrast, the availability of alternative finance had a dampening impact on loan demand in Germany and Spain, while having a broadly neutral effect in Italy and France (European Central Bank, 2016b).

Prerequisites for Further Development of External Financing

The further development of external financing of enterprises depends on many factors. Today, the access to that kind of financing is not the most significant problem for companies. Over the period of 2011-2015, it was a problem only for 15.1% micro, 12.9% small, 11% medium, and 9.3% large enterprises. For enterprises of all sizes, the most important factor was finding customers (24.4% of firms pointed it). The importance of other factors differs in different groups. For large companies, the second factor that influences their business negatively is competition (16.9%). Medium- and small-sized firms stated that it is an availability of skilled staff or experienced managers (17.2%). Only for micro enterprises, the second place took access to finance (15.1%) (see Figure 5). In the recent round of the survey, finding customers was still the dominant concern for euro area enterprises, and 27% of euro area SMEs mentioned this as their main problem (up from 25% in the previous survey round). Similarly, access to finance was considered the least important concern (10%), after regulation, competition and cost of production (all 14%) and availability of skilled labor (17%). Among SMEs, access to finance was a more important problem for micro enterprises (12%). For large enterprises, finding customers (28%) was also reported as the dominant concern, followed by availability of skilled labor (18%) and competition (17%). Access to finance was mentioned less frequently as a significant problem for large firms (7%) (European Central Bank, 2016a).

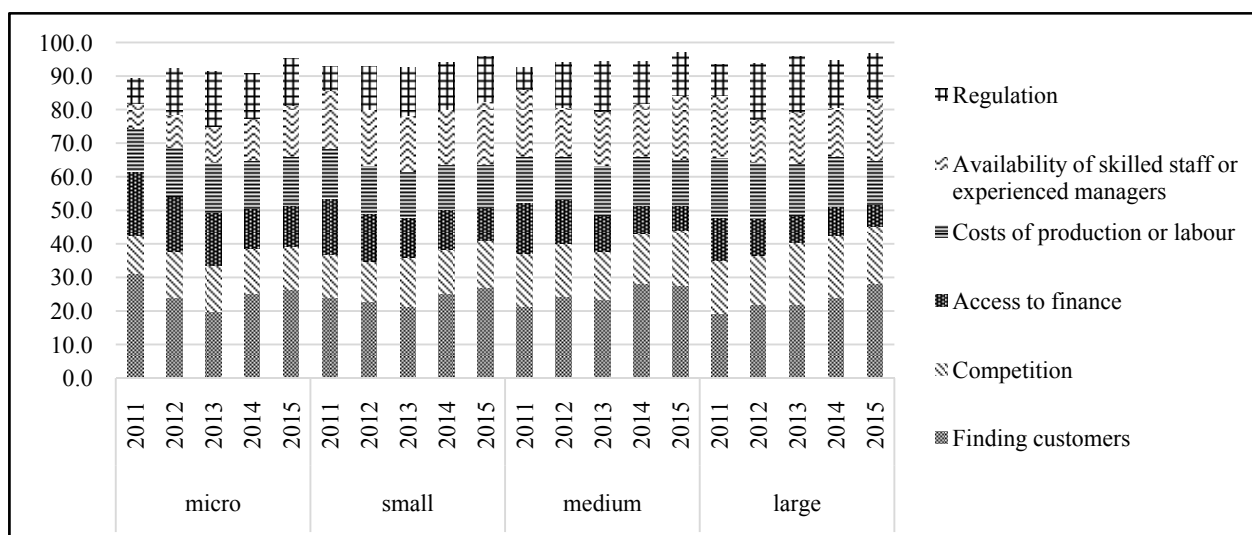


Figure 5. The most important problems faced by euro area enterprises over the period of 2011-2015.

Source: Own work based on ECB data (<http://sdw.ecb.europa.eu/>).

At the beginning of 2016, enterprises confirmed, on balance, an increase in the availability of bank financing (loans and bank overdrafts) and in the willingness of banks to provide credit at lower interest rates. For the first time, micro firms also reported having benefited from this improvement. The external financing gap which measures, at the firm level, the perceived difference between the need for external funds and the availability of funds, remained negative at the euro area level. This means that in most countries, the potential supply of external funds may have exceeded their need for external financing (European Central Bank, 2016a). The further development of financing enterprises' needs by loans depends on banks' ability to erase reasons making them not a relevant source of financing. Taking into account the main reason that is the lack of need, it seems to be quite a difficult task for banks. In 2015, almost 75% of enterprises that were subject to the research stated that there is no such a need (see Figure 6).

Fixed investment and inventory and working capital remained the two most important purposes for which enterprises used their total (internal and external) financing, with their importance increasing with firm size. Their general solvency has been systematically improving which resulted in decreasing the level of loan applications' rejection. Among 30% of SMEs that applied for a loan, 68% of them were fully successful. The financial situation of large enterprises remained better than that of SMEs. Around 42% of large firms applied for a bank loan with a success rate that was much higher (78%) (European Central Bank, 2016a).

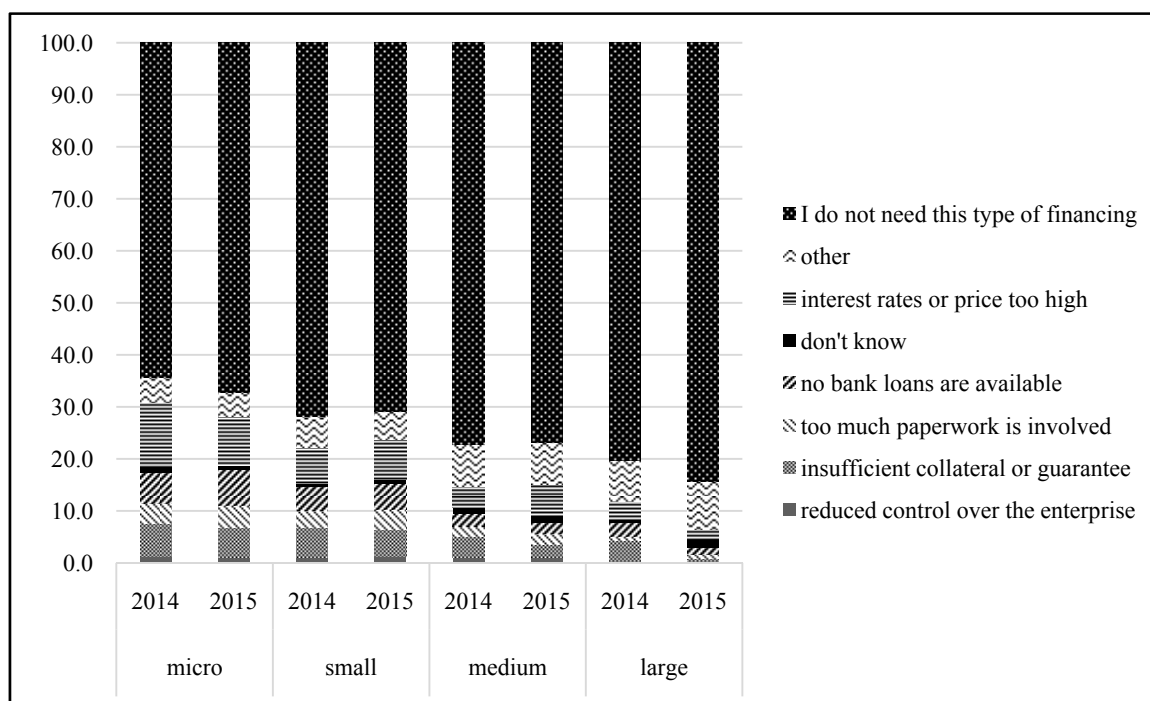


Figure 6. Reasons why bank loans are not a relevant source of financing (2014-2015).

Source: Own work based on ECB data (<http://sdw.ecb.europa.eu/>).

Even if the Basel Capital Accords have changed some aspects of banks' credit policy, enterprises assess their ability to obtain a loan as high. For the coming months, they expected continued improvements in the availability of external and internal sources of finance. Looking ahead, an increased percentage of euro area SMEs reported a net improvement in the availability of bank loans (11%, compared with 8% for the period from October 2015 to March 2016). Additionally, they expected higher improvements in internal funds (retained earnings or sale of assets) and bank overdrafts (15% and 10% respectively, compared with 13% and 8%). Euro area SMEs expected a lower improvement in the availability of trade credit for the same period (9%, down from 11%). Among SMEs, optimism increases with firm size considering the future availability of internal funds, bank loans, bank overdrafts, trade credit and other loans. Compared with their expectations reported in the previous survey period, large enterprises expected a greater improvement in the availability of bank loans (18%), bank overdrafts (16%) and trade credit (15%), as well as in their internal funds (20%). According to information available since the last survey round, euro area enterprises continued to expect positive developments for their equity, while their expectations were higher across all size classes about the increased availability of leasing or hire purchase for the coming six-month period. Optimism about further improvements was widespread in most countries (European Central Bank, 2016a).

Conclusion

The Basel Capital Accords were thought to be one of the most important factors influencing banks' credit policy. Undoubtedly, their impact on credit standards and banks' credit procedures was significant and caused strengthening of banks' capital base.

The general economic outlook, especially the level of interest rates and competition, caused that Basel III did not crucially influence the loan supply. Concurrently, the enterprises' demand for external financing decreased. The access to finance is not the barrier to their further development any more. The first time in the contemporary history enterprises assess their creditworthiness as high. This optimism is proved by the level of loan application's rejection that decreased in analyzed period.

The most important problem for all types of companies remains finding customers. The further development of external financing may be difficult as the companies declare no need for that kind of financing. In this case, gaining profits from credit activity might be a challenge for banks. Banks should expand their activity and scope of cooperation with enterprises. Becoming a partner for developing business rather than only a money supplier requires finding their position in the value chain for enterprises' customers. It will help to solve the main enterprises' problem and as a result will contribute to building a strong foundation for long-term business-to-business cooperation.

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