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The informational value of credit ratings in the bank/firm relationship

How, by combining quantitative and qualitative information, do central bank credit ratings influence the supply of bank loans to businesses? This article attempts to answer this question by analysing the effects of a 2004 reform of the Banque de France's rating scale. Thanks to a more accurate position on this scale, some firms benefited from an upgrading of their credit rating relative to other firms whose rating remained unchanged. By providing the banking sector with the information contained in the credit rating, this reform has allowed these firms to enjoy greater and cheaper access to bank credit.

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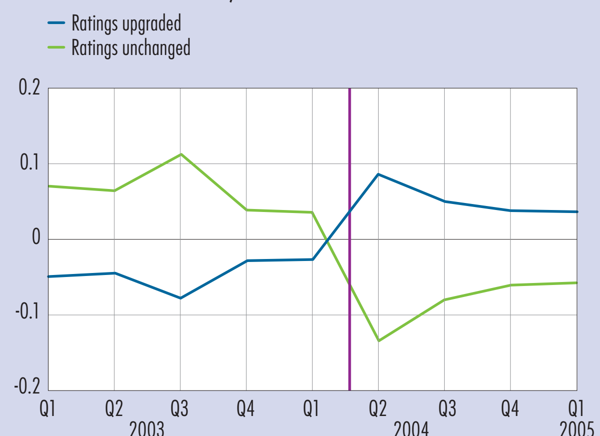
1.2% of the balance sheet total
the additional credit granted to companies whose rating has been upgraded compared to similar companies without such an upgrade

15 basis points
the decline in the cost of credit observed for these companies

4%
the increase in the probability of creating a new banking relationship

Quarterly bank credit flows around the reform

(x-axis: quarters around the change of scale [purple line]; y-axis: quarterly change in relative credit supply as a percentage of the balance sheet total)



Source: Cahn, Girotti and Salvadè (2019).
Note: Relative credit supply is measured by the quarterly change in outstanding loans as a percentage of the balance sheet total, stripped of differences related to, inter alia, the sector, time period and unobservable characteristics of firms.

1 The key role of qualitative information in the banking relationship

By exchanging information between credit market participants, lenders are able to better assess the credit risk associated with companies. At the same time, this exchange enables these same companies to prevent the best-informed lenders from exploiting an informational rent at their expense.[1]

Nowadays, easier access to company data and the development of information and communication technologies facilitate the dissemination of verifiable financial information (hard information). However, qualitative and informal information (soft information), such as that produced by financial analysts, remains costly to collect and difficult to disseminate.[2] This may discourage the use of this type of information in the selection and monitoring of borrowers and thereby be detrimental to the credit market. Indeed, qualitative information plays a key role in facilitating access to credit, especially for small businesses, which are generally more opaque.[3]

In this context, the analysis of banks' use of external credit ratings, and of their informational content, is interesting for two reasons. On the one hand, it refines our understanding of the mechanisms at work in lending decisions. On the other hand, it enables us to assess whether and how external certification can enhance access to bank credit for companies, especially small and medium-sized enterprises (SMEs) with the highest level of financial intermediation. This article addresses these issues by analysing how the production of quantitative and qualitative information about borrowers, and its dissemination through a credit register, can influence banks' lending decisions and thereby improve the functioning of the credit market.

2 The Banque de France rating system and its 2004 reform

The bank credit market in France offers a framework for analysis that is particularly well-suited to these questions. Indeed, a large number of SMEs are assigned a credit rating by the Banque de France, based on the collection and processing of both quantitative and qualitative information. Ratings are made available to credit institutions via the FIBEN company database,[4] alongside a large quantity of financial information such as balance sheets and income statements.

The 2004 ratings reform: a refinement of the scale

Company ratings reflect a firm's ability to meet its financial commitments over a three-year horizon. This rating is represented by a position on a rating scale. The Banque de France's rating system was reformed in 2004, resulting in a refinement of pre-existing ratings and thus an increase in the number of levels (see box). These new rules improve the accuracy of the classification of companies: each company in a rating class is assigned to a finer level. For those whose situation was deemed more favourable by Banque de France analysts within the same rating class, their credit rating was upgraded to distinguish them. As a result, some firms benefited from a positive rating surprise compared with other firms whose ratings were unchanged.

An exogenous informational shock

These sudden rating changes do not reflect changes in a company's fundamentals. They are independent of the choices that these companies may have made ahead of this reform – e.g. adapting their financing structure – in order to benefit from a more favourable rating. Indeed, the analysts in charge of positioning companies on the new rating scale used the latest financial ratios available before the reform (liquidity ratios, debt ratios, etc.). Only factors external to the companies – Banque de France thresholds for rating companies and analysts' judgements – were used in allocating firms to the new scale.

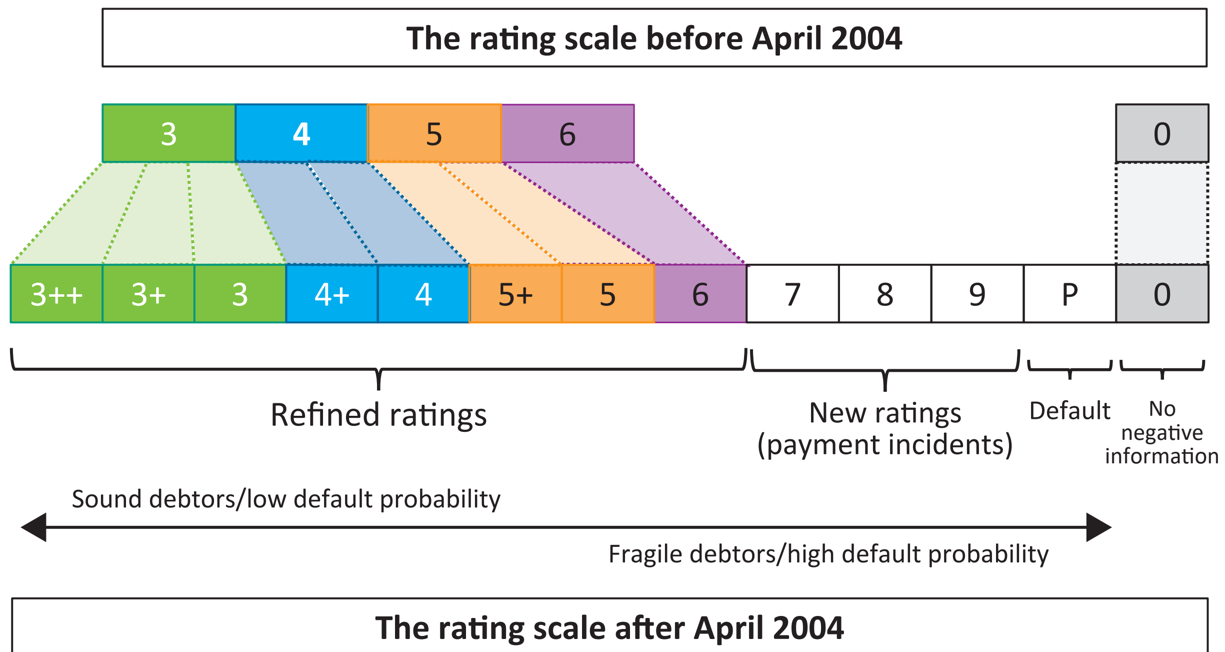
Consequently, this reform allows us to check whether credit institutions base their lending decisions on these external ratings: simply by examining whether the exogenous change in rating information has had an impact on the supply of loans to businesses.

1 See Pagano and Jappelli (1993), Padilla and Pagano (1997).
2 See, for example, Liberti and Petersen (2018).
3 In this regard, see Bolton et al. (2016), Hombert and Matray (2016) or Berger et al. (2017).
4 For a detailed description of the Banque de France rating, see Schirmer (2014).

BOX

In 2004, the Banque de France's rating scale was refined and extended

Diagram Changes in the Banque de France rating scale



Source: Cahn, Girotti and Salvadè (2019).

The rating scale had four levels up to April 2004. At that time, the Banque de France refined this scale by creating intermediate classes and supplementing it with additional levels (see diagram above). This change mainly resulted in the introduction of additional thresholds applying to certain financial ratios. These thresholds make it possible to distribute companies within the same class. Thus, while the underlying financial information remained unchanged, the ratings of some companies rose (e.g. from 3 to 3++ or 3+), while they remained stable for others (3 against 3).

3 What are the effects of more detailed information?

Methodology

Using granular credit and rating data, Cahn, Girotti and Salvadè (2019) assess the effects of this reform on the supply of credit to businesses. To this end, a panel of companies is selected for which Banque de France analysts report no change in their assessment over a period of one year prior to the reform. In this way, the analysis focuses on firms whose developments, for example in the area of credit, tend to show parallel trends up to the time of reform.

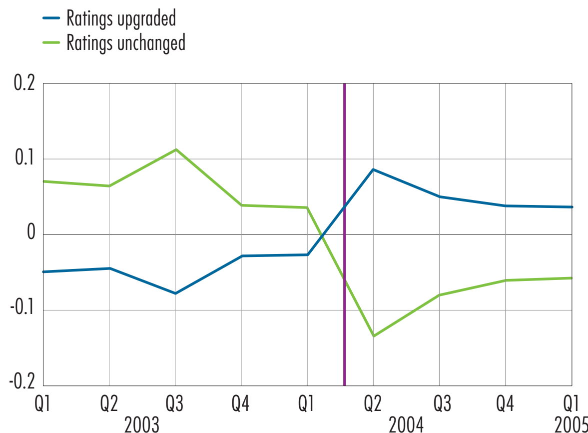
As mentioned above, at the time the reform was implemented, some firms experienced a positive rating surprise compared with other firms in the same risk class. This development allows us to use a "difference-in-differences" approach, by comparing the credit paths of firms whose ratings have been upgraded with those whose ratings have remained unchanged, before and after the reform.

A significant effect on credit

Using the methodology described above, we observe that, as soon as companies experience a positive rating surprise, they benefit from a greater relative supply of credit (see chart).

Quarterly bank credit flows around the reform

(x-axis: quarters around the change of scale [purple line]; y-axis: quarterly change in relative credit supply as a percentage of the balance sheet total)



Source: Cahn, Girotti and Salvadè (2019).
Note: Relative credit supply is measured by the quarterly change in outstanding loans as a percentage of the balance sheet total, stripped of differences related to, inter alia, the sector, time period and unobservable characteristics of firms.

The effect is economically significant: the positive rating surprise results in a relative increase in credit supply for the company in question. This additional supply leads to a greater annual flow of credit to companies whose ratings have been upgraded relative to similar companies whose ratings have remained unchanged. This additional amount corresponds to approximately 1.2% of the previous year's balance sheet total.

This finding is consistent with the idea that banks use the third-party certification in their lending decisions. However, these results shed little light on the precise mechanisms behind this increase in credit.

4 The advantages of a rating produced by a central bank

Why do banks use the information contained in the rating? One reason could be that credit ratings contain valuable information that lenders simply do not have. To test this assumption, Cahn, Girotti and Salvadè (2019) begin by identifying a set of characteristics related to the bank/firm relationship. Each of these characteristics illustrates the fact that Banque de France analysts are likely to have a broader set of information on borrowers than that available to banks.

There are many reasons why the central bank may be better informed. For example, privileged access to the entire credit register can provide central bank analysts with data on the relative performance of the company in its sector and thus improve – by supplementing it – the qualitative information they collect. In the case of the smallest companies, this type of information contained in the rating is even more relevant.

Another reason relates to the length of the relationship between the bank and the company. Throughout the life of a loan, a bank accumulates qualitative information on the firm (Berger and Udell, 1995). For their part, central bank analysts have been accumulating information since the company was founded. This means that the more recent the relationship between the bank and the company, the less the lender knows about the company compared to the analysts in charge of the rating. The credit rating should therefore provide useful information for banks lending to new customers.

Lastly, a bank may not find it useful to acquire qualitative information insofar as the acquisition cost is higher than the expected gain. This is the case, for example, when the firm borrows from more than one bank and the secondary banks – those that provide only a minority share of the firm's financing – have less incentive to collect information (Carletti et al., 2007). Thus, the smaller the proportion of loans granted by the bank relative to the total loans taken out by the firm, the less information the bank collects. It is also possible that banks may find the cost of collecting information too high when they have less expertise in the sector to which the company concerned belongs. For example, the more active the bank is in a sector, the easier it should be to assess the credit quality of companies operating in that sector, and therefore the lower the probability that the bank will exploit the informational content of the rating.

Cahn, Girotti and Salvadè (2019) again apply the difference-in-differences approach and analyse the interaction between the positive rating surprise and the various characteristics of the banking relationship discussed above (length of the relationship, relative share in the financing of the company, the bank's specialisation, etc.). The econometric analysis tends to confirm that the least well-informed lenders react more

strongly to rating surprises and adjust their credit supply more significantly. These findings suggest that banks use credit ratings for their informational content precisely when they are less well informed than the institution responsible for producing the credit rating.

5 Bank competition and social value of the rating

To what extent can a social value be attributed to the dissemination of the rating? The findings above suggest that the banking sector as a whole has made use of this more accurate information resulting from the 2004 reform. As a result, the information gap between creditors who collect information directly and those who do not is narrowing. Thus, by increasing banks' overall knowledge of borrowing firms, the reform increases competition among banks (Hauswald and Marquez, 2003).

The fact that companies benefiting from a rating upgrade obtain more credit than those whose rating is unchanged, particularly from the least well-informed lenders, suggests that the reform has reduced the problem of debtor "captivity", a phenomenon better known in the economy as the hold-up problem. Prior to the reform, the best-informed banks were able to exploit their informational advantage to better capture their customers (Boot, 2000). The information disseminated following the reform allows borrowers to escape from this captivity. Indeed, the analysis shows that rating upgrades are also associated with a relatively higher probability of entering into a new banking relationship. The effect is equivalent to an increase in this probability of about 4% per quarter for upgraded firms relative to non-upgraded firms; this is a significant effect, especially since the quarterly probability of entering into a banking relationship is on average 6%. The reform thus enables companies that receive a rating upgrade to better showcase their qualities to new lenders and obtain credit from them, thus reducing the informational rent of existing lenders.

Furthermore, by disseminating a credit rating, the central bank could contribute to a better allocation of financing to the economy and, in so doing, help businesses to seize investment opportunities. In this respect, the econometric analysis shows that positive rating surprises are associated with a fall in the cost of debt of around 15 basis points and an increase in investment by the companies concerned. In addition, the rating of these companies is less likely to be downgraded in the three years following the reform. Again, these results are expressed in relative terms, i.e., in terms of upgraded companies relative to those with unchanged ratings.

Lastly, a positive rating surprise may benefit smaller banks through increased competition in the bank lending market, with significant economic implications, for at least two reasons. First, the share of bank assets that small banks allocate to loans to small businesses – which are more opaque – is greater than that allocated by large banks (Berger et al., 2005 and 2017). Second, the growing market power of large banks can affect the supply of credit (Sapienza, 2002). Incidentally, Cahn, Girotti and Salvadè (2019) empirically verify that rating upgrades are associated with a larger flow of loans from smaller banks.

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