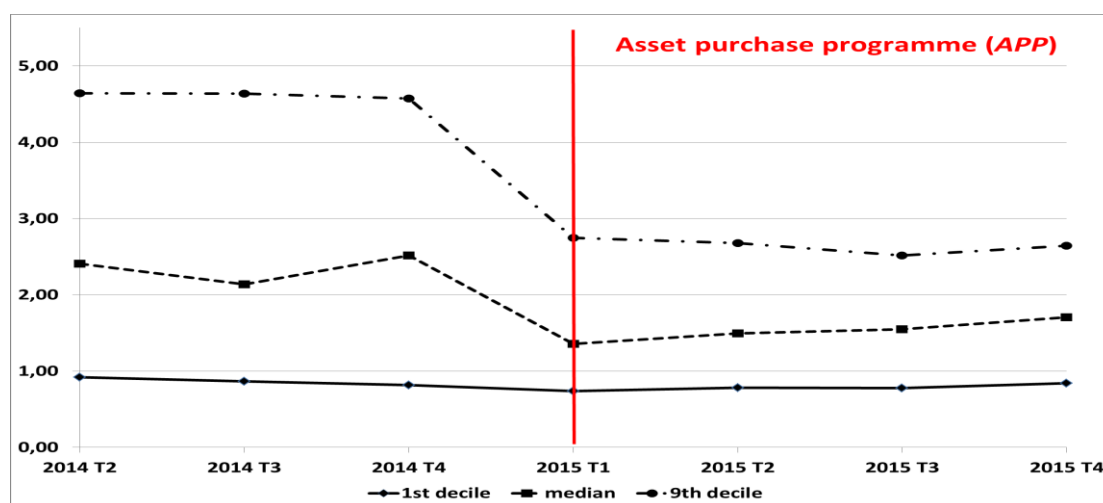


Quantitative easing and a lasting decline in credit spreads

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In France, at the beginning of 2015, interest rates on new bank loans to businesses fell sharply; this lasting decline, which was more pronounced for high-rate loans, followed the ECB's announcement of quantitative easing. Without any significant change in the characteristics of borrowing companies, it attests to an improvement in financing conditions.

Chart 1: Sharp decline in the spread on high-rate loans in France



Sources: Banque de France and authors' calculations. Rate of new fixed-rate loans (cash and investment) to non-financial corporations

Companies having obtained loans with the highest interest rates benefited most from the announcement of the asset purchase programme (also known as quantitative easing). For each new loan, we calculate the difference (or credit spread) between the interest rate associated with this loan and the interest rate applied to a contract with zero default risk and with the same maturity. The 10% of new loans with the highest rates displayed a credit spread of 270 basis points in the first quarter of 2015 (Q1) compared with 450 basis points in the last quarter of 2014 (see Chart 1 and Table 1). On the other hand, the 10% of new loans with the lowest rates only fell slightly more than the risk-free rate, since their spread dropped by less than 10 basis points.

Some economic agents may have anticipated in 2014 the announcement of quantitative easing. As a result, negotiated rates may already have begun to decline in the face of the impending APP. These expectations are not taken into account in the simple comparisons above. Our estimates therefore underestimate the effect of quantitative easing.

Table 1: Marked fall in rates on the most costly loans

| Periods | Deciles | | | | |
|------------------------------|-----------------|-----------------|--------|-----------------|-----------------|
| | 1 st | 3 rd | Median | 7 th | 9 th |
| 4 th quarter 2014 | 0.8 | 1.2 | 2.5 | 3.1 | 4.6 |
| 1 st quarter 2015 | 0.7 | 1.3 | 1.4 | 1.8 | 2.7 |
| Variations | -0.1 | 0.1 | -1.1 | -1.3 | -1.8 |

Sources: Banque de France and authors' calculations. Spreads on new fixed-rate loans (cash and investment) to French non-financial corporations

No significant change in borrower characteristics

Can the decline in the rates on new loans in Q1 2015 be explained by a decrease in the risk carried by new borrowers compared to those who had obtained a loan prior to Q4 2014? Using a decomposition method that has proved its worth in the analysis of quantile distributions ([Firpo, Fortin and Lemieux, 2009](#)), we measure the changes caused by several factors: changes in borrowed amounts, types of loans (cash or investment), Banque de France ratings of borrowing companies.

By comparing 2014 with 2015, it emerges that, on average, the decline in risks explains less than 20% of that in spreads (see Table 2). The fall in the default risk therefore only marginally explains the decline in credit spreads.

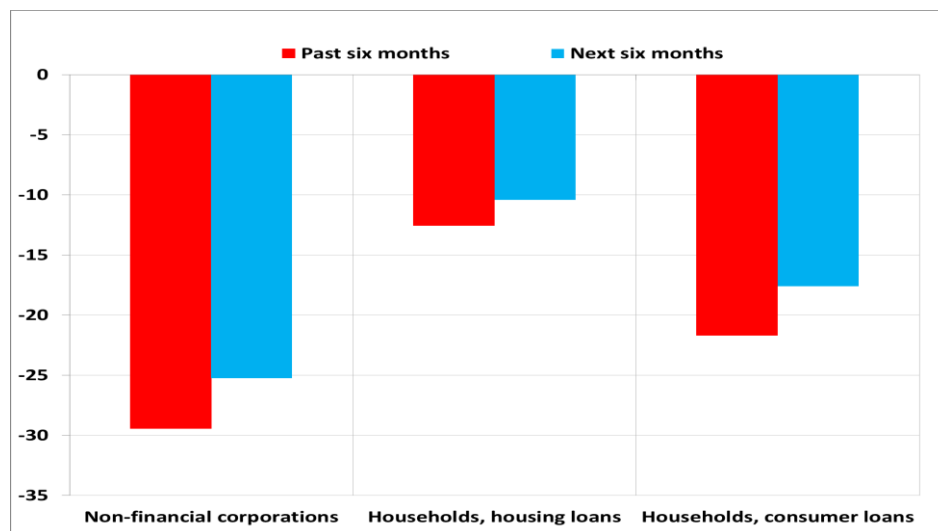
Table 2: marginal impact of the decrease in risks on the fall in spreads

| | 1 st decile | 3 rd decile | Median | 7 th decile | 9 th decile |
|--|------------------------|------------------------|--------|------------------------|------------------------|
| Decrease in the credit spread | -0.1 | -0.1 | -0.6 | -1.6 | -2.0 |
| Share explained by loan and borrower characteristics | 0.0 | -0.0 | -0.1 | -0.2 | -0.1 |
| Unexplained share | -0.1 | -0.1 | -0.5 | -1.4 | -1.9 |

The variations in credit spreads are the difference between the spreads in 2014 and those in 2015

Significant easing of credit standards

The Bank Lending Survey is conducted every quarter by the ECB among euro area banks on bank financing conditions. The October 2015 survey included, exceptionally, questions designed to assess the effect of the APP. The results obtained confirm that quantitative easing has had an impact on the supply of bank credit. The banks reported that they had obtained liquidity under the APP in order to increase their supply of credit, in particular to businesses. The same source revealed that households also benefited. Overall, the APP helped to cause a net easing of credit standards for the non-financial private sector (see Chart 2).

Chart 2: Significant easing of credit standards in the euro area *

Source: ECB, Bank lending survey, October 2015

*The x-axis corresponds to sectors/types of credit, the y-axis to the gap between the % of responses pointing to a tightening versus an easing (negative gap = easing of credit standards).

Transmission channels from the APP to credit spreads

Variations in credit spreads are attributable to both credit demand and supply factors. For example, an improvement in the quality of borrowers (demand factor) may stem from a decrease in the default risk during the term of the loan, leading to a fall in spreads. Similarly, on the supply side, an improvement in lender characteristics such as a better capitalised banking system has an impact on the amounts lent ([Klein, Peek et Rosengren, 2002](#)) or on bank interest rates ([Santos, 2012](#)).

Credit rates react to monetary policy, irrespective of their maturity. Indeed, long-term interest rates reflect the expectations of economic agents regarding future rates. In the monetary easing phase, the more they are convinced that this is a lasting trend and is part of a medium-term strategy, the more this easing will have a downward effect on long-term interest rates (see [post Eco Notepad](#)) for the effects of APPs on interest rates and bond yields).

In addition, recent work has shown that monetary policy has an impact on credit spreads. Indeed, an expansionary policy can both stimulate lenders' risk appetite (resulting in a reduction in the compensation required to meet any losses incurred in the event of a borrower defaulting) and reduce their risk of default. Moreover, credit spread variations may amplify the decline in monetary rates, leading to sharp variations in the cost of credit for businesses ([Gertler and Karadi, 2014](#)).

Finally, in the United States, the announcements of quantitative easing significantly reduced credit default swap rates, especially for businesses with the highest default risk ([Krishnamurty and Vissing-Jorgensen, 2011](#)). Our results on the effects of the APP

announced in January 2015 in the euro area are therefore consistent with those for the United States.