Since mid-2024, the transmission of base interest rate cuts to French corporate lending rates has been hampered by the reduction in the ECB's balance sheet, political uncertainty and bond yield movements in the United States

In June 2024, the ECB introduced a cut in its base interest rates, which control short-term interbank refinancing costs. According to the model presented in this Focus, banks are quick to pass on fluctuations in monetary policy to private agents, and a cut in base interest rates of 100 basis points results in a drop of around 50 basis points in lending rates to French companies over a two-year timeframe, of which 40 basis points are in the first year. However, rates on new corporate loans are falling less sharply than would be expected given the current monetary easing. There are several factors to account for this lower transmission, some of which are common to all Eurozone countries. First, the effect of the reduction in base interest rates is partly offset by the reduction in the balance sheet held by the ECB, which is composed of longer-term securities: thus, while short-term rates react strongly to monetary easing, medium- and long-term rates are more inert. In addition, fluctuations in the US bond market are partly transmitted to European agent rates, independently of the monetary policy conducted by the ECB; this factor has tended to be on a downward trend for the last year, although this has changed since the end of 2024 due to uncertainty over the direction of fiscal policy on the other side of the Atlantic. Lastly, more specific to France, the risk premium on French sovereign yields, defined as the spread between French and German sovereign yields, has increased since summer 2024 in a context of political uncertainty, which has also slowed the transmission of monetary policy to French corporate lending rates.

By mid-2025, factors limiting the transmission of the cut in base interest rates are expected to be only partially lifted. The French-German spread seems to have stabilised and the ECB's base interest rates should continue to go down, which is expected to contribute to a decline in French private rates. However, the contraction in the ECB's balance sheet is likely to have the opposite effect on long- and medium-term rates. Finally, US rates could continue to slow the decline in sovereign and private yields in Europe if the concerns raised by the implementation of the new administration's fiscal and trade policies were to materialise. Similarly, the increase in German sovereign yields after the announcement of an increase in defence spending at the beginning of March was transmitted to the entire European bond market and could also slow the decline in rates for private agents. Ultimately, these factors mitigate the diffusion of monetary support for investment via the credit channel.

Raphaële Adjerad, Gaston Vermersch

Central banks on both sides of the Atlantic have committed to lowering their base interest rates in 2024

In 2024, in a period of disinflation, the European Central Bank (ECB) and the United States Federal Reserve initiated

cycles of cuts in their base interest rates (▶ Figure 1). The ECB started this movement in June by lowering the deposit facility rate from 4.00% to 3.75%, followed by further reductions in September, October, December, February and March 2025 to reach 2.50%. The three-month Furibor

▶1. Base interest rates of the central banks



Last point: March 2025 for the ECB and Federal Reserve rates and January 2025 for Euribor.

How to read it: the rate considered for the ECB's monetary policy is currently the deposit facility rate and for the Federal Reserve, the floor for the Effective Federal Funds Rate.

Source: BCE. Federal Reserve.

followed the adjustments made to the ECB's deposit facility rate (▶ Bank of Spain, 2023).¹ Meanwhile, the Federal Reserve began to reduce its rate in September, with a sharp cut of 50 basis points, reducing the floor for the Effective Federal Funds Rate from 5.25% to 4.75%, before making two further cuts in November and December, closing the year at 4.25%.

This decline resulted in a modest decrease in sovereign yields and medium-term European private rates, especially in France

Since mid-2023, government bond rates in the Eurozone countries have also been falling slightly. However, from the summer of 2024, the spread between French bonds (OAT) and German bonds (Bund) widened significantly: thus the three-year rates² in France and Germany stood at 2.6% and 2.2% respectively in January 2025, i.e. a spread of 41 basis points, whereas this spread was only 23 basis points in May 2024. The main reason for this divergence is that of political uncertainties in France, notably the dissolution of the National Assembly and the tensions surrounding the adoption of the 2025 budget. Similarly, while France's three-year rate was 11 basis points below that of Spain in May, it is now the Spanish sovereign yield that is slightly lower than the French rate (by 6 basis points in January).

Regarding the private sector, since the beginning of 2024, interest rates on new loans granted to non-financial corporations (NFCs) in the Eurozone have fallen less quickly than base rates (>Figure 2). In France specifically, the decrease in rates on new loans is slightly less pronounced than that in the Eurozone as a whole: since Q2 2024, the average monthly decrease in basis points in France has remained systematically lower than that

recorded in the Eurozone (12 basis points on average in Q4 compared to 14 in the Eurozone, 6 basis points in Q3 compared to 10 in the Eurozone, 3 basis points in Q2 compared to 4 in the Eurozone).

This modest decline in French corporate lending rates contrasts with the more substantial reductions in the ECB's base rates over the same period. Analysis of the transmission channels of the central bank's cuts to government bond rates then to private companies reveals the factors that account for this divergence, some of which are common to all Eurozone countries and others are specific to France.

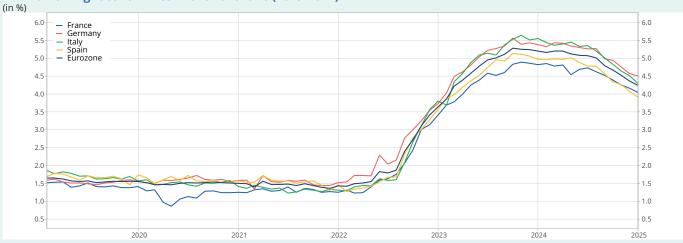
The transmission of monetary policy shocks to private rates is not immediate and also depends on maturity and risk

The central banks set their base rates which determine the very short-term interbank rates. Several factors influence transmission of these rates. First, the banks do not adjust their rates immediately. There is therefore a transmission lag: based on past changes, it can be seen that monetary policy shocks are effectively transmitted to private rates within a relatively short time frame, of around 12 months (>Jude and Levieuge, 2024).

Furthermore, lending rates to private agents are often contracted over the medium or long term, like the maturity of corporate debt in France, which is three years on average (Gueuder and Ray, 2022). Therefore, monetary policy is not transmitted to private agents in full. The rates granted to companies can be analysed as the sum of three components: anticipation of future short-term interest rates, a possible term premium, and risk premiums (Barthélémy, 2024). Anticipation of short-term interest

- 1 Since the early 2010s, interbank rates in the Eurozone have followed the ECB's deposit facility rate due to excess liquidity. Previously, they tended to follow the main refinancing operations rate closely.
- 2 In this Focus, the maturity used for sovereign yields and rates applied to companies is three years, as this is the average maturity of corporate debt (see below).

▶ 2. Borrowing rate for NFCs in the Eurozone (2019-2024)



Last point: January 2025.

How to read it: the borrowing rate for new loans to non-financial corporations (NFCs) in France in January 2025 was 4.0%. **Source**: European Central Bank.

rates depends mainly on inflation expectations, which central banks can influence through their monetary policy, either by changing their base interest rate or by changing the balance sheet of assets held by the central bank. The term premium corresponds to remuneration for the illiquidity incurred by the lender by lending at a fixed rate. Finally, risk premiums include a macroeconomic risk premium that depends on the international economic environment, on a potential sovereign risk specific to each country and on a default risk specific to each economic agent, estimated by the lending bank and billed to it.

The contraction of the ECB's balance sheet results in a "steepening" of the yield curve

In a traditional economic and financial environment, interest rates increase according to the maturity of the loan: we then say that the yield curve is rising. This was the case in France, for example, in 2012 for the curve of the OAT rate (**Figure 3**).

With the implementation of the ECB's unconventional monetary policies from the mid-2010s, this curve then flattened until 2019 (while continuing to grow), due to the increase in the ECB's balance sheet, in particular the acquisition of medium- and long-term sovereign securities. This was indeed one of the ECB's stated objectives: faced with increased risk of deflation and with base rates close to zero, unconventional policies aimed at stimulating demand by lowering long-term rates.

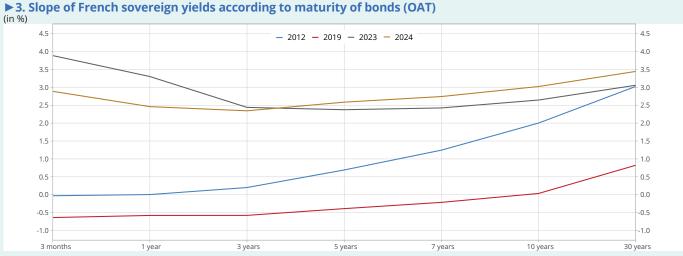
The situation changed after the health crisis in a context of rising inflation. The ECB quickly responded by raising its base rate in 2022, and short-term rates increased, more so than long-term rates, which depend on long-term inflation expectations and are less sensitive to changes in the ECB's base rate, especially if monetary policy is perfectly anticipated by the markets: thus, the yield curve was in the shape of an "L" at the end of 2023.

In 2024, the opposite phenomenon occurred: the ECB began to lower its base interest rate in the midst of disinflation, leading to a decline in short-term treasury bonds, which are more sensitive than long-term bonds to a change in the base rate. This steepening of the yield curve was amplified by the policy of tightening the balance sheet of the ECB's assets in 2024, which pushed the sovereign yields of all the Eurozone countries upwards in the long term. Thus, at the end of 2024, the yield curve took on a "U" shape: short-term rates fall compared to 2023, but still remained above the medium-term rate (3 to 7 years), while long-term rates continued to rise due to the restriction of the balance sheet of assets held by the ECB. Finally, three-year rates declined less than the ECB's base rates, just as previously they had increased less.

US rates also have an impact on European rates

While sovereign yields and private rates in the Eurozone are affected by the ECB's monetary policy decisions, they are also sensitive, to a lesser extent, to the global bond environment, and in particular to rates in the United States. For example, at the end of 2023, 29% of French public debt was held by non-residents outside the Eurozone, according to the Banque de France. The economic literature shows that a shock to US sovereign yields (▶ Brandt and al., 2021) or the international financial environment (▶ Girotti and al., 2022) simultaneously affects asset and bond prices in the Eurozone, independently of the ECB's monetary policy reaction.

While the decline in bond yields was relatively similar on both sides of the Atlantic between the end of 2023 and the end of 2024, the results of the US presidential election contributed to a rise in US rates, contaminating the European market. Indeed, while the outlook for future ECB rate cuts is firmly rooted in a context of declining inflation and a marked slowdown in activity on the Old Continent, expectations are fluctuating much



How to read it: in December, the rate for 3-month fixed-rate treasury bonds was 2.89%. **Source**: Banque de France, Agence France Trésor.

more across the Atlantic, where activity continues to be vigorous and where inflation is struggling to decline. Added to this are the trade and fiscal policies set out by the new administration which are fuelling fears of renewed inflation in the United States, and this is pushing up US rates and therefore indirectly limiting the decline in European rates, and French rates in particular.

The smaller drop in borrowing rates for companies in France in 2024 is due to the contraction of the ECB's balance sheet and a higher risk premium

The modest drop in the borrowing rate for NFCs in France can be subject to econometric modelling, in order to distinguish within this movement what is, on the one hand, due to factors common to all the Eurozone countries, notably the ECB's monetary policy, or to the international economic and financial environment, and on the other hand, what is more specific to the national context (>Box methodolgy).

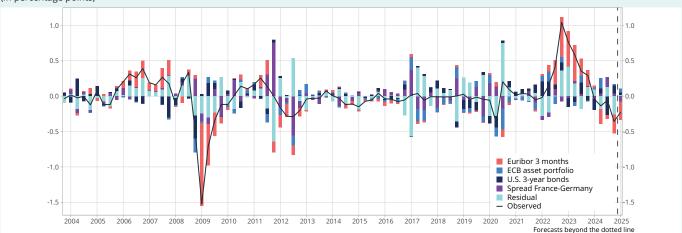
In order to study the different stages of the transmission of the ECB's monetary policy, it is necessary to select a risk-free rate that reflects only inflation expectations and term premiums. In practice, this "pure" risk-free rate does not exist, but in the literature sovereign yields are selected. For the Eurozone, the weakest sovereign yield and for which the market has the greatest depth –and therefore does not suffer from problems of liquidity– is the German bond (Bund). First, the rate of three-year German bonds is modelled in the form of an error-correction model, as a function of the three-month interbank rate (Euribor), the balance sheet of assets held by the ECB, and the US sovereign yield with the same maturity. Next, the rate of French bonds (OAT) can be broken down for accounting

purposes as the sum of the German sovereign yield (similar to the risk-free rate in the Eurozone) and a risk premium, commonly called a "spread", which is assumed to be representative of the French macroeconomic risk premium, due to the uncertainty specific to France. Finally, the rate on new loans granted to French NFCs is modelled by an error-correction model based on the rate of French bonds. Thus, by linking these different steps, it is possible to account for the contribution to changes in the rates at which French NFCs are financed by the spread between France and Germany on the one hand, and factors common to the different Eurozone countries on the other, such as the Euribor rate, the ECB's balance sheet or the US sovereign yields.

According to the model used, the effect of an increase of 100 basis points on the three-month interbank rate, sensitive to changes in the ECB's base rate, is 50 basis points at term on the rate of new loans to French NFCs, with 40 basis points applied from the first year. Conversely, an increase in the Eurozone's asset balance sheet, equivalent to 1 point of Eurozone GDP, ultimately leads to a decrease of 0.6 basis points in the rate of loans to French NFCs over a two-year period.

Between Q4 2023 and Q4 2024, rates on new loans to French NFCs fell by 0.6 points. The easing of monetary policy during 2024 contributed to this drop in the rates paid by the NFCs. The decline in the European interbank rate, made possible in particular by the fall in the base rate, would appear to have contributed -0.5 points. Nevertheless, this effect is partly offset by the continued reduction in the ECB's asset balance sheet, which made a positive contribution of +0.2 points. The fall in the US rates contributed -0.2 points to the decline in rates for French NFCs; this factor was reversed, however, during the last quarter of the year and helped to slow the downward movement (contribution of +0.1 points, ▶ Figure 4).





Last point: Q1 2025.

How to read it: in Q4 2024, the rates paid by NFCs on newly contracted loans fell by 0.4 percentage points. The drop in interbank rates contributed -0.3 points to this change, according to the model used.

Source: Banque Centrale Européenne, Agence France Trésor, Bundesbank, S&P, INSEE modelling and calculations.

Regarding the political uncertainty in France, reflected by the sovereign yield spread between France and Germany, it increased in the summer and, all other things being equal, appears to have raised the rate of loans to French NFCs by +0.2 points over one year at the end of 2024. Finally, factors not explained by the model are expected to contribute to bringing down the rate of NFC loans by -0.2 points over the period: the tightening of financing conditions was stronger in 2023 than suggested by the model and the easing, in contrast, was slightly faster (Figure 4).

By mid-2025, NFC lending rates are expected to fall slightly less than at the end of 2024. The ECB is likely to continue to lower its base interest rates, which should contribute to

a decline in private rates, but it will also cause its balance sheet to contract, which would in turn have an adverse effect on long- and medium-term rates. Furthermore, US rates could continue to slow the decline in sovereign yields and private rates in Europe if concerns raised over the implementation of the new administration's fiscal and trade policies are confirmed. Finally, the rise in the German sovereign yields following the announcement of an increase in defence spending in early March has been passed on to the entire European bond market. A sustainable rise in German sovereign yields could, once again, slow the decline in rates for private agents.

Méthodology: Two-stage model of the interest rate on new loans contracted by non-financial corporations in France

In order to differentiate the contributions of monetary policy and the international economic and financial environment to change in the rate on new loans paid by French non-financial corporations (NFCs), a two-stage model is proposed, notably using error correction models.

Firstly, the three-year German sovereign yield (Bund) is modelled, similar to the risk-free rate in the Eurozone (Figure 5). In the long term, the three-year Bund depends on the three-month interbank rate (effect of a change in the ECB's base interest rate, Euribor), the US sovereign yield (with the same maturity, US Bond), the size of the ECB's balance sheet (effect on the medium- and long-term sovereign yields, Bilan BCE) and an indicator from the 2010s onwards. In the short term, the variation in the Bund depends on the same determinants. The model indicates that an increase in the balance sheet of assets held by the ECB equivalent to 1 point of Eurozone GDP is associated with, all other things being equal, a long-term decrease of 0.72 basis points in the three-year German Bund. This elasticity is lower than that estimated by the ECB in recent studies (Akkaya and al., 2024).

▶5. Three-year German Bund rate observed and simulated from the model (stage 1)



Last point: Q1 2025.

Note: the observed rate in Q1 2025 is carried over from January.

How to read it: in Q4 2024, the observed German Bund was 2.01%, the rate simulated by the model is 1.69%.

Source: Bundesbank, INSEE modelling.

Stage 1:

$$\begin{split} \Delta(\textit{Bund}_t) &= \underset{(0,02)}{0.00} + \underset{(0,08)}{0.54} \times \Delta(\textit{Euribor})_{t}^{***} + \underset{(0,08)}{0.37} \times \Delta(\textit{Bond US})_{t}^{***} - \underset{(0,39)}{0.57} \times \Delta(\textit{Bilan BCE })_t \\ &- \underset{(0,07)}{0.35}^{****} \times \left[\textit{Bund}_{t-1} - \underset{(0,04)}{0.60} \times \textit{Euribor}_{t-1}^{***} \right. + \underset{(0,03)}{0.11} \times \textit{Bond US}_{t-1}^{***} - \underset{(0,13)}{0.72} \times \textit{Bilan BCE}_{t-1}^{***} - \underset{(0,15)}{0.68} \times \mathbb{1}_{t > = 2011}^{***}) \right] + \epsilon_t \end{split}$$

 $R^2 = 0.69$; estimation period: 2003-Q1: 2020-Q4

Next, the three-year French sovereign yield is reconstituted in accounting terms: the OAT rate can indeed be written as the sum of the German sovereign yield (similar to the risk-free European rate) and a risk premium (or spread).

Accounting equation: OAT, = Bund, + (OAT, - Bund) = Bundt + spread,

Secondly, we model the determinants of the interest rate on loans paid by NFCs based on the three-year OAT rate (Figure 6), assuming that the OAT incorporates the macroeconomic risk premium specific to France. In the long term, loans to private agents are thus assumed to depend on France's sovereign yield over three years, which corresponds to the average maturity of loans to NFCs (Gueuder and Ray, 2022). To account for an increase in risk premiums specific to companies during the 2010s, a dummy is added after 2011 in the long-term relationship. In the short term, the variation in the NFC rate depends on the immediate lag of this variable and of the variation in the French sovereign yield.

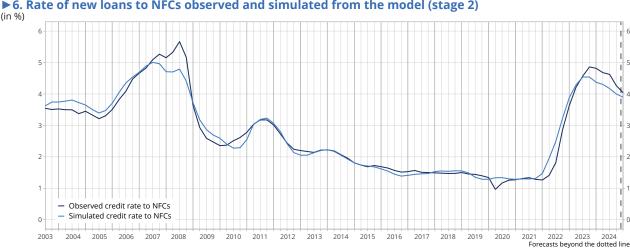
Stage 2: Error correction model of rate paid by NFCs for new loans

$$\begin{split} \Delta(Taux \ SNF_t) &= \underset{(0,02)}{0,00} + \underset{(0,06)}{0,44} \times \Delta(\ Taux \ SNF)_{t-1}^{***} + \underset{(0,05)}{0,35} \times \Delta(\ OAT)_t^{***} \\ &- \underset{(0,05)}{0,34}^{****} \times \left[\ Taux \ SNF_{t-1} - \underset{(0,05)}{0,005} \times OAT_{t-1}^{***} + \underset{(0,15)}{0,46} \ \mathbb{1}_{t > = \ 2011}^{***})\right] + \epsilon_t \end{split}$$

 $R^2 = 0.76$; estimation period: 2003-Q1: 2020-Q4

By combining these three equations, the three-year NFC loan rate can thus be written as the sum of a contribution from the European interbank rates, the US rates, the ECB's balance sheet (all three are factors common to all Eurozone countries), the spread and a residual component (corresponding to the errors of the two econometric models and the contribution of the dummies in these same models). •

▶ 6. Rate of new loans to NFCs observed and simulated from the model (stage 2)



Note: the observed rate in Q1 2025 is carried over from January.

How to read it: in Q4 2024, the observed rate of new loans to NFCs was 4.27%, the rate simulated by the model is 4.00%.

Source: BCE and INSEE modelling.

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