

# REPORT ON THE FINANCIAL SITUATION OF HOUSEHOLDS AND FIRMS

Second half of  
2023

BANCO DE **ESPAÑA**  
Eurosistema



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## Report

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## Editorial

In the second half of 2023 households and firms saw an overall improvement in their financial situation in terms of higher incomes, declining indebtedness and rising asset values. These developments were influenced by two key factors: economic growth, which has continued to create jobs and enabled wage and business income to grow; and monetary tightening by the European Central Bank (ECB), whose key interest rates continued to rise to September, further increasing the cost of new lending and weakening credit flows.

The increase in the key ECB interest rates has also continued to be passed through to the cost of outstanding debt. However, market expectations point to cuts to the ECB interest rates this year, which have started to be reflected in drops in the reference rates used for floating-rate loan contracts. If market expectations are borne out, this trend could persist over the coming months. Under these assumptions, depending on the specific characteristics of the loan agreements, more and more indebted households and firms will start to see their debt servicing costs decrease slightly (see Box 1). In any event, expectations point to interest rates remaining at levels considerably higher than in 2021, before the monetary tightening cycle.

Thanks to the increase in income, the cumulative rise in interest rates during this cycle is estimated to have prompted only a slight increase in the proportion of vulnerable indebted households. This is also reflected in the limited materialisation of risks shown by the indicators of bank loan quality. Turning to firms, sound corporate earnings kept the increase in the percentage of firms under high financial pressure in 2023 at very moderate levels. According to the simulations performed, such percentage will barely change in 2024 (see Box 2).

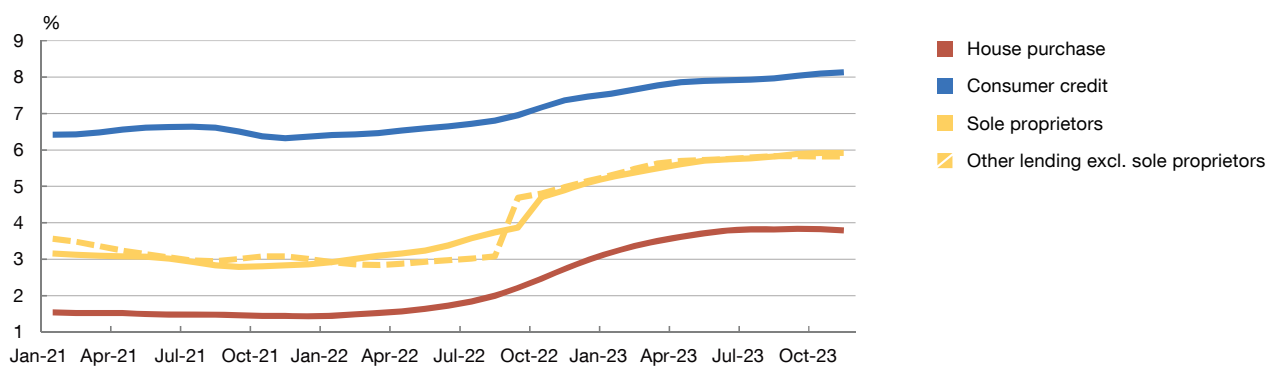
The macro-financial context will determine the future course of the financial situation of households and firms. Under the baseline macroeconomic scenario, which envisages moderate economic growth and incorporates market expectations of interest rate cuts, these sectors' financial situation will fare relatively well. Conversely, if certain adverse scenarios for economic growth materialise, their financial situation could deteriorate. Likewise, if key policy rate cuts are smaller than currently signalled by market expectations, the pressure on indebted agents will be eased less than indicated in this report.

## 1 The cost of new financing to households continued to rise in 2023 H2, albeit at an increasingly slower pace, ...

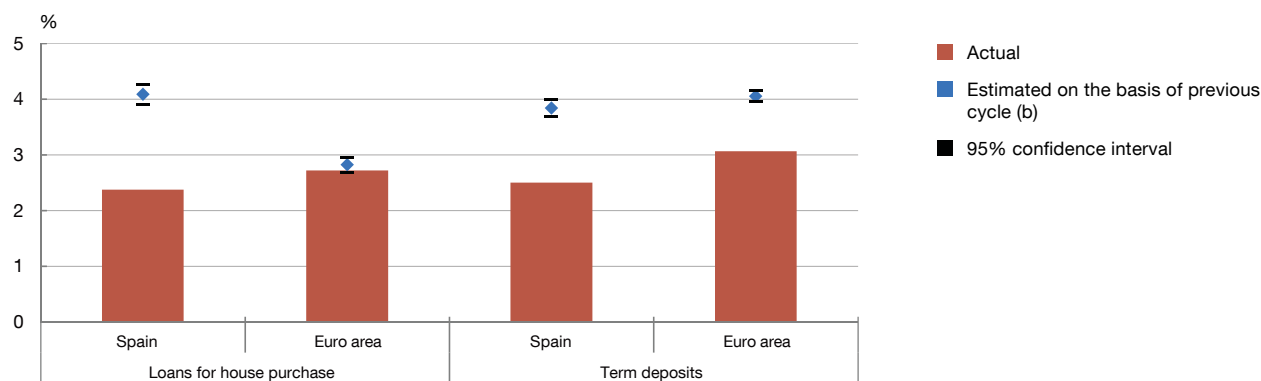
- Increases in market rates continued to be passed through to new bank loans (see Chart 1.a). However, these rate rises gradually slowed, as the monetary tightening cycle reached its peak.
- Over the entire tightening period (since December 2021), the increase in interest rates on loans for house purchase has been weaker than might be expected based on historical regularities. This has not been the case for the euro area as a whole (see Chart 1.b). This lower pass-through in Spain could be related, among other factors, to the limited increase in the average household deposit rate in the current cycle.

Chart 1

1.a Cost of new bank lending (a)



1.b Cumulative change in bank interest rates. December 2021 to November 2023 (a)



SOURCES: ECB and Banco de España.

- a** Bank interest rates are narrowly defined effective rates, i.e. they exclude related charges, such as repayment insurance premiums and fees, and are adjusted seasonally and for the irregular component (small changes in the series with no recognisable pattern in terms of periodicity or trend).
- b** Resulting bank interest rate if the current cycle's increase in the market interest rate had been passed through similarly to the previous cycle, according to standard error-correction models estimated for the period January 2003-August 2007. A model is estimated for short-term (up to one year) and long-term (more than one year) interest rates. The chart depicts the composite interest rate weighted by the volume of new lending.

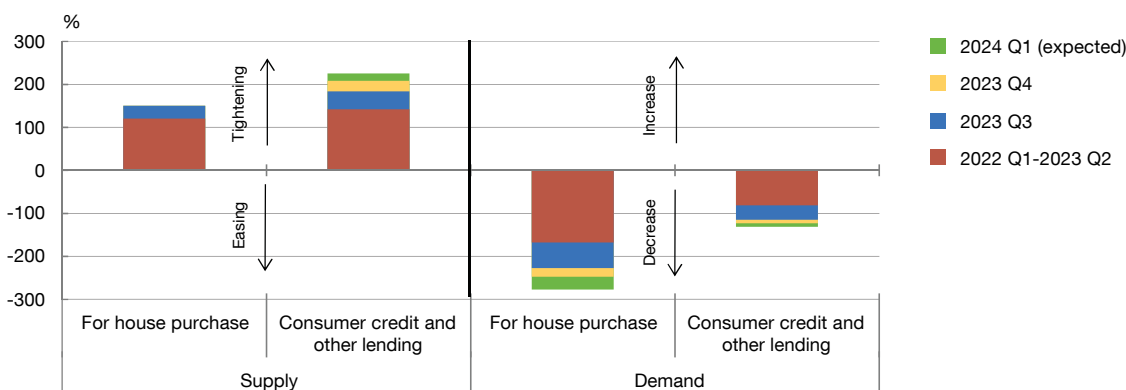


## 2 ... as loan supply and demand continued to decrease

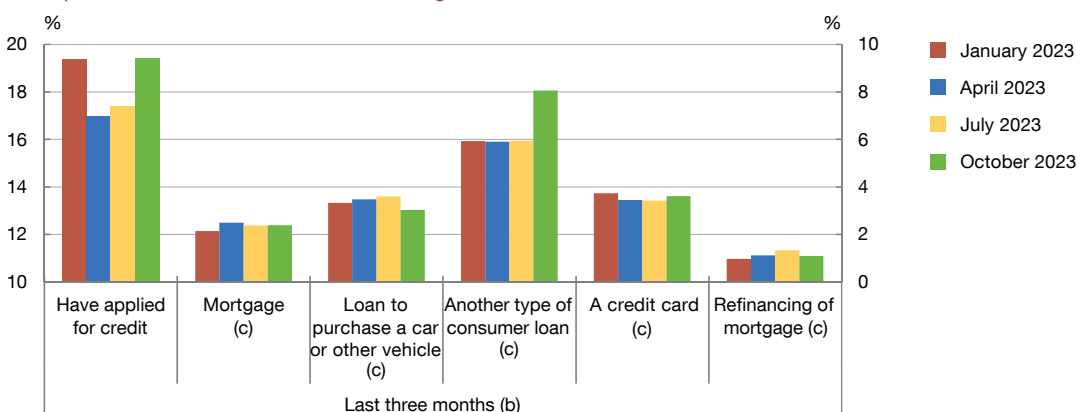
- The Bank Lending Survey (BLS) shows that credit standards for lending to households tightened across the board in 2023 Q3, while in Q4 they only tightened slightly in the consumer credit and other lending segment (see Chart 2.a).
- The BLS also indicates that loan demand decreased in 2023 H2 and is expected to continue doing so in early 2024, more sharply in the case of loans for house purchase. The decline in applications for consumer credit and other lending could be linked to the other lending segment, i.e. loans to the self-employed and non-profit institutions serving households, debt consolidation and loans for education purposes.
- The European Central Bank's (ECB) October Consumer Expectations Survey (CES) shows an increase in the percentage of households that applied for loans in Q3, due mainly to the greater number of applications for consumer loans unrelated to the purchase of a car or other vehicle (see Chart 2.b). Mortgage application numbers were low.

Chart 2

2.a Cumulative change in credit standards and demand for bank loans to households in Spain. BLS (a)



2.b Spanish households' demand for lending. CES



SOURCES: ECB and Banco de España.

- a Percentage of banks reporting a tightening (an increase in the case of demand) less percentage reporting an easing (a decrease in the case of demand).
- b Percentage of households that in the last three months have applied for: a mortgage to purchase a house or other real estate or a loan for home renovation, a loan to purchase a car, motorbike or other vehicle, another type of consumer loan or instalment debt, a leasing contract, a credit card or an account with an overdraft, a loan for education purposes, an increase in the limit of an existing loan and refinancing of their current mortgage.
- c Right-hand scale.

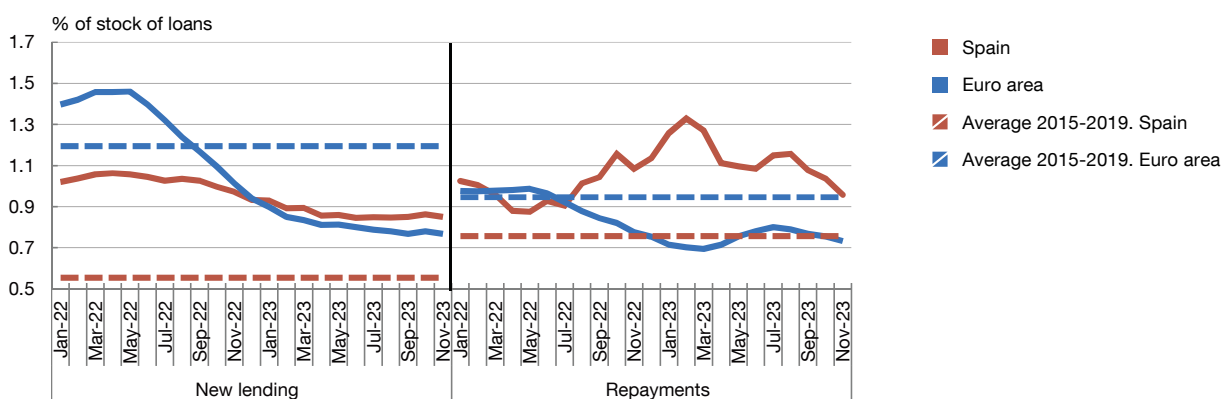


### 3 Loans for house purchase have remained weak over the past few months ...

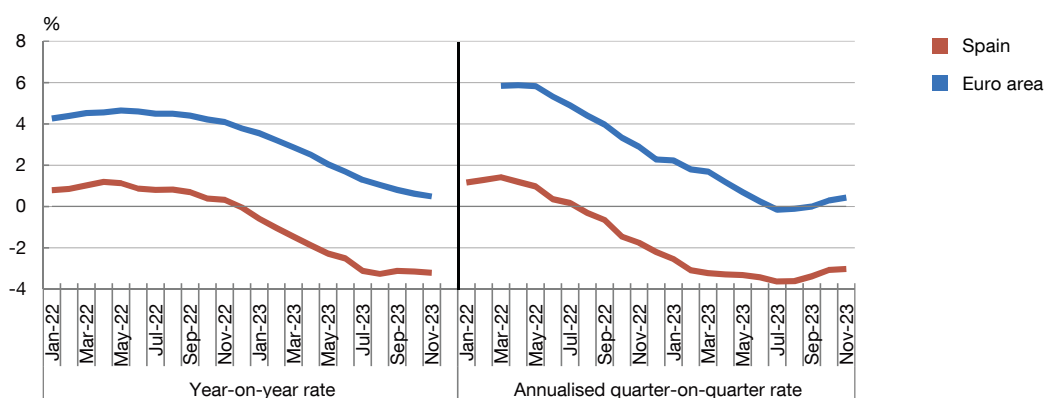
- In recent months, the flow of loans for house purchase has held relatively stable in Spain and the euro area, following its decline since mid-2022, which was sharper in the euro area (see Chart 3.a). In Spain the ratio of new mortgage loans to the stock of mortgage loans is relatively higher than in the euro area and exceeds its pre-pandemic level.
- The Central Credit Register (CCR) indicates that the weak performance of new mortgage loans in Spain is widespread across income levels, although it is more pronounced for households in postcode areas with upper quintile income, which concentrated 50% of the outstanding amount of mortgages in September 2023.
- Repayments have also been high in Spain, indicative of the incentives (in a high interest rate environment) to repay floating-rate mortgages, which account for a much higher share of the stock than the euro area average.
- As a result, the outstanding amount of mortgage loans has continued to contract in Spain (see Chart 3.b). The trend has been similar in the euro area, although no decreases have been recorded. However, the quarter-on-quarter rates have recovered since the summer.

Chart 3

#### 3.a Volume of new lending and repayment of loans for house purchase (a)



#### 3.b Outstanding amount of loans for house purchase (b)



SOURCES: ECB and Banco de España.

a Three-month average calculated using seasonally adjusted monthly data.

b Data adjusted for seasonality and securitisation. In the euro area the adjustment for securitisation is only available from December 2022.

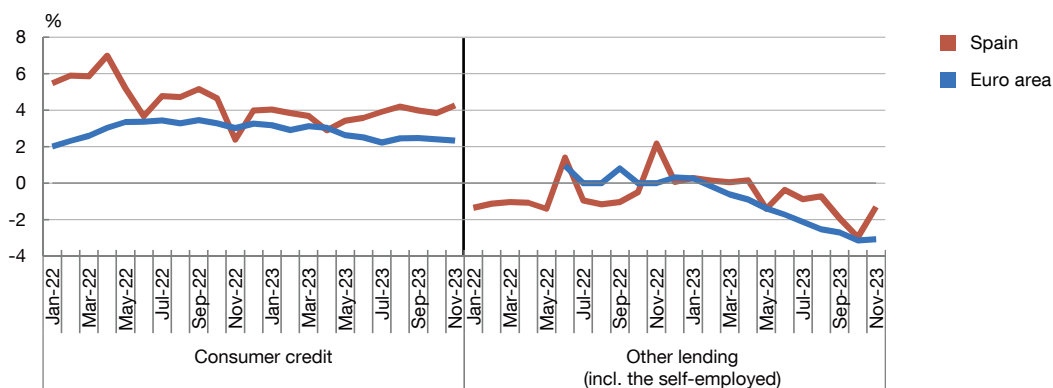


#### 4 ... while consumer credit has remained strong, albeit with some heterogeneity across income levels

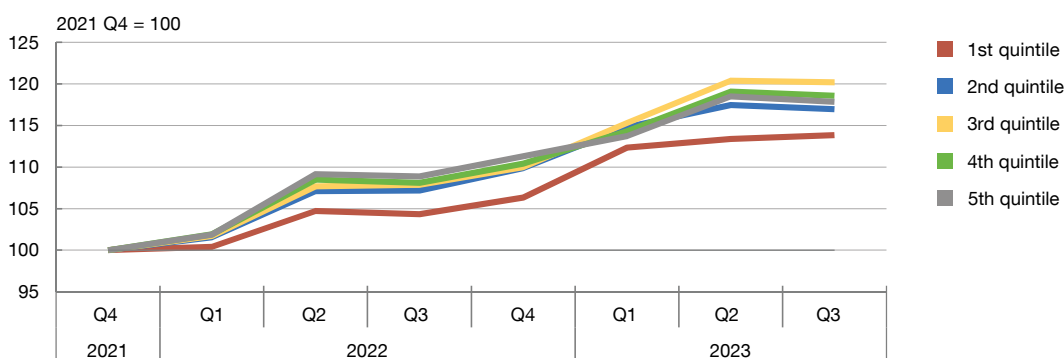
- Consumer credit in Spain (and the euro area) has continued to record positive year-on-year growth rates and strong momentum in recent quarters (see Chart 4.a). This appears to be associated with the financing of durable goods consumption.
- By contrast, other lending (i.e. not for house purchase or consumption) has continued to contract in Spain and the euro area, driven by the decline in lending to sole proprietors.
- On CCR data, over the last 18 months consumer credit has grown across the board, but more sharply in medium and high-income postcode areas (see Chart 4.b). Credit growth is due to the widespread increase in the number of new borrowers, which has been weaker in low-income postcode areas, rather than to a rise in the loans' average amount, which has decreased at a similar pace across all income brackets.

Chart 4

##### 4.a Year-on-year rate of change of the outstanding amount of bank lending (a)



##### 4.b Volume of new consumer credit, by income quintile. CCR (b) (c)



SOURCES: ECB and Banco de España.

- a Data adjusted for seasonality and securitisation. In the euro area the adjustment for securitisation is only available from December 2022.  
 b The data include consumer loans and credit card financing and are not seasonally adjusted.  
 c Household income is proxied by the average income of the household's postcode district.



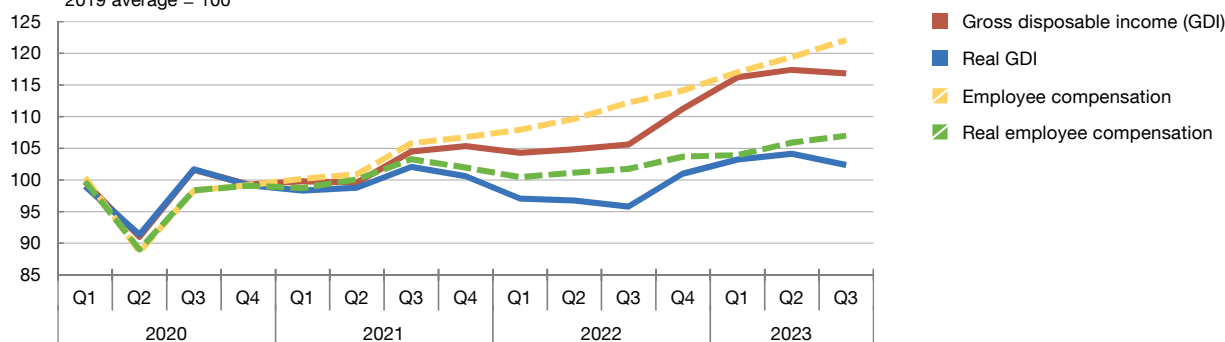
## 5 Employment and wage growth continued to drive household income

- In 2023 Q3 employment income continued to drive household income (see Chart 5.a). Adjusting for inflation, the year-on-year change in employee compensation stood at 5%, reaching a level around 6% above its pre-pandemic level.
- The increase in aggregate wage income reflects both employment growth and growth in compensation per employee (see Chart 5.b). **The growing contribution of foreign national workers** to these developments should also be noted, in a setting in which foreign residents are driving population growth and growth in the number of households in Spain.

Chart 5

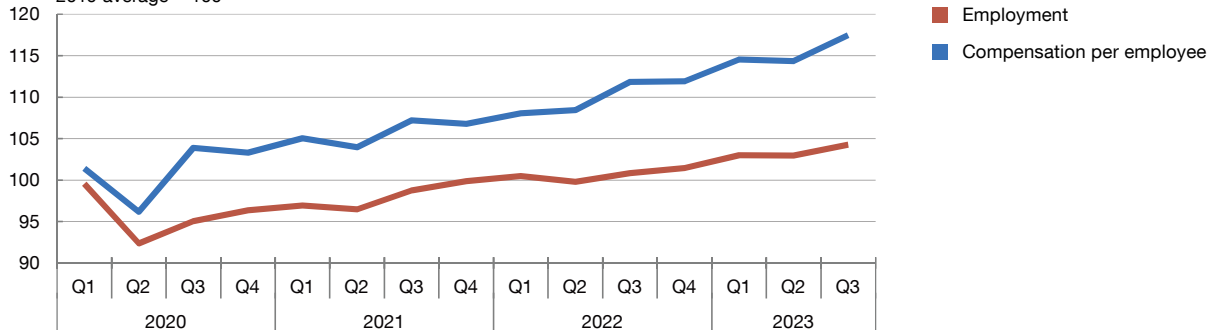
### 5.a Household income (a)

2019 average = 100



### 5.b Employment and compensation per employee (a)

2019 average = 100



SOURCES: INE and Banco de España.

a Seasonally adjusted time series. The private consumption deflator is used to obtain the real figures.





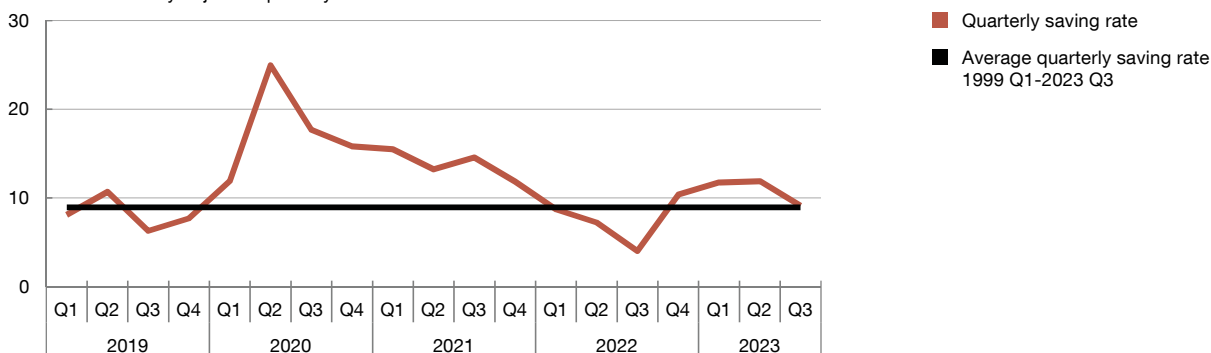
## 6 The household saving rate declined in 2023 Q3, while the reallocation of their portfolios to more profitable assets gathered pace

- Against the backdrop of strong nominal income, the sharp rise in consumer spending prompted a 2.8 percentage point (pp) decline in the sector's saving rate, to 9.1%. Despite this decrease, the saving rate remained slightly above its historical average (see Chart 6.a).
- Households have continued to increase their liquid asset holdings, while proceeding with the reallocation of their portfolios, shifting from cash and sight deposits to other liquid assets with higher expected returns, such as term deposits, Treasury bills and investment funds (see Chart 6.b).

Chart 6

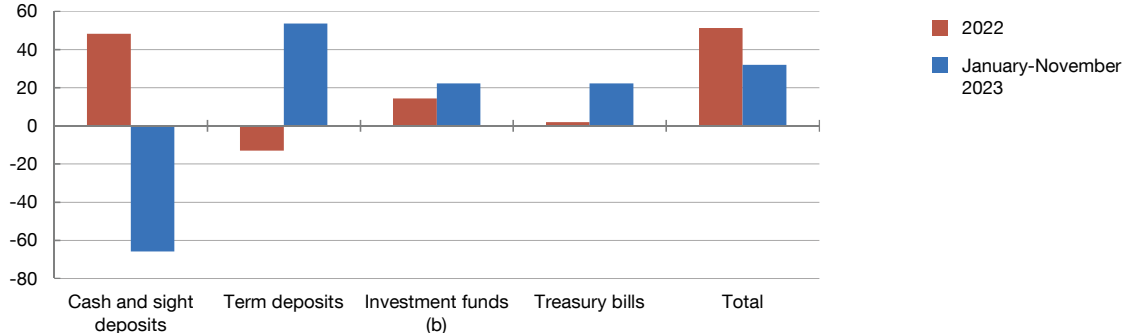
### 6.a Spanish household saving rate (a)

% of seasonally adjusted quarterly GDI



### 6.b Cumulative net flows of liquid assets (a)

€bn



SOURCES: INE and Banco de España.

a Seasonally adjusted data.

b Net subscriptions (excl. valuation effects).

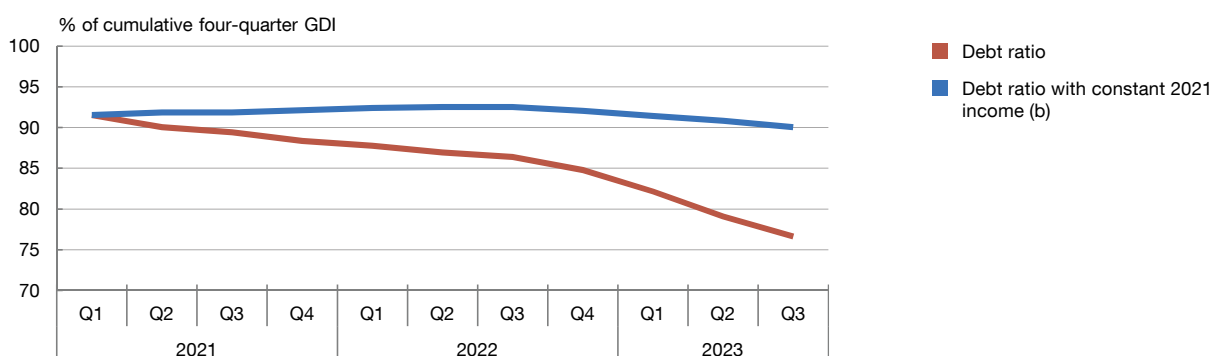


## 7 The average household debt ratio fell further and the gross wealth indicators improved

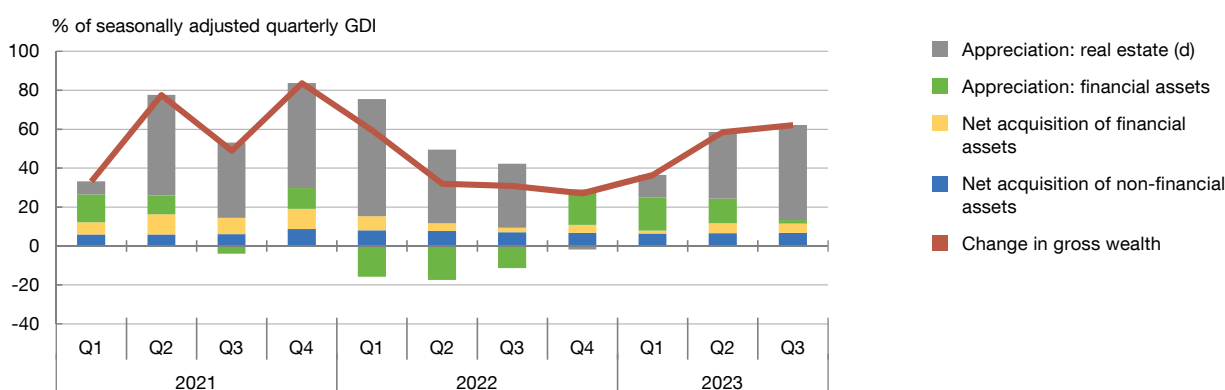
- **Deleveraging** and, above all, the effect of the rise in inflation on **nominal income** meant that the household debt ratio decreased to 76.6% of gross disposable income (GDI) in 2023 Q3 (see Chart 7.a), the lowest level since 2002 and 12 pp lower than the euro area average (89%).
- The increase in gross household wealth picked up steam, due to both net asset purchases and asset appreciation (see Chart 7.b). Despite **financing being more expensive**, the year-on-year growth of nominal house prices rose to 4.5% in 2023 Q3, driven by the pick-up in new house prices (11%, the highest year-on-year rate of the last 16 years) amid supply shortages and the pass-through of past increases in the cost of building materials. Meanwhile, second-hand house prices grew strongly, at 3.2% year-on-year.

Chart 7

### 7.a Debt ratio (a)



### 7.b Change in gross wealth, by component (c)



SOURCES: INE and Banco de España.

- a Seasonally adjusted outstanding amount.
- b Calculated by dividing the outstanding amount by cumulative four-quarter GDI in March 2021.
- c Seasonally adjusted flows.
- d Only includes housing.

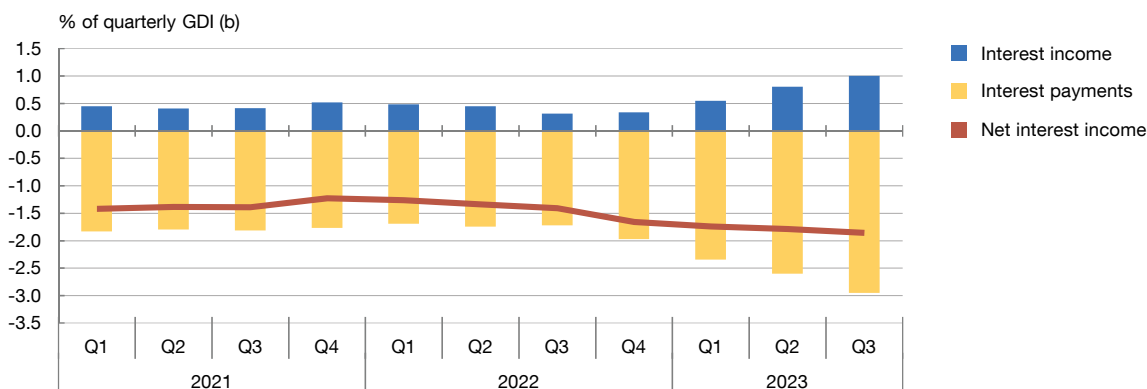


## 8 Households' net interest burden continued to rise, although the percentage of vulnerable households grew only to a limited extent thanks to the strength of nominal income

- Households with variable-rate loans and those that have recently arranged loans faced higher interest expenses. The average cost of bank loans to households rose to 4.6% in November 2023, compared with 2.3% in December 2021.
- Based on current market expectations, the transmission of monetary policy to interest payments on outstanding loans is virtually complete. Just 7% of the outstanding amount of variable-rate mortgages is exposed to an interest rate increase of 100 basis points (bp) or more between December 2023 and March 2024 (see Box 1). Conversely, nearly 10% of this mortgage segment could see their interest costs decline by at least 50 bp in the same period.
- The sector's net interest burden ratio has increased by 0.6 pp since end-2021, to stand at 1.9% of GDI in 2023 Q3 (see Chart 8.a).
- The mitigating effect of **higher nominal income** appears to have constrained the increase in the percentage of indebted households that are vulnerable (proxied by those who spend more than 40% of their income on debt servicing) associated with the cumulative increase in interest rates. According to estimates drawing on the 2020 Spanish Survey of Household Finances, this percentage rose from 10.5% in 2020 to 11.2% in 2023 Q3.

Chart 8

8.a Change in households' net interest burden (a)



SOURCES: INE and Banco de España.

- a Seasonally adjusted income and payment flows. Calculated dividing income and payments by the quarterly GDI in the corresponding period.  
 b GDI excludes net interest income.

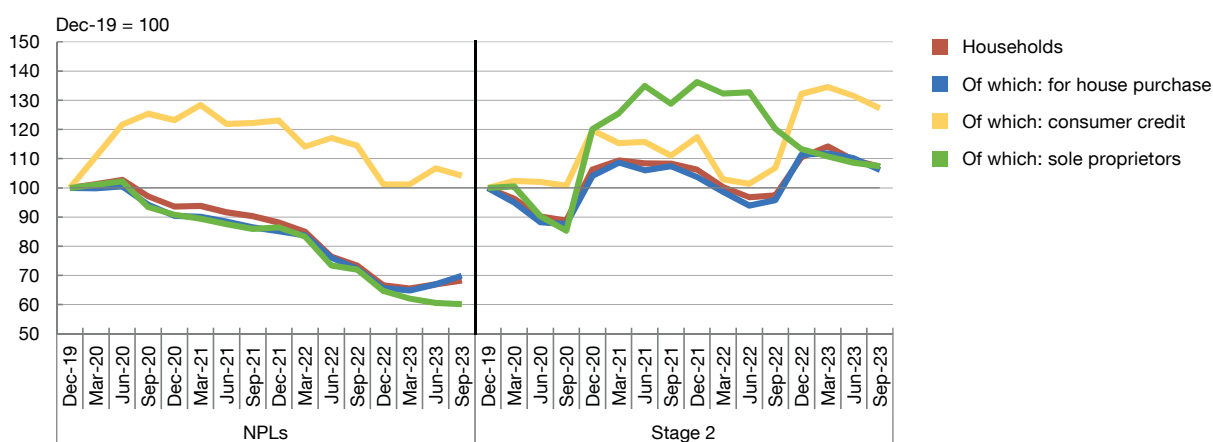


## 9 Developments since March 2023 in non-performing and Stage 2 loans to households indicate subdued risk materialisation

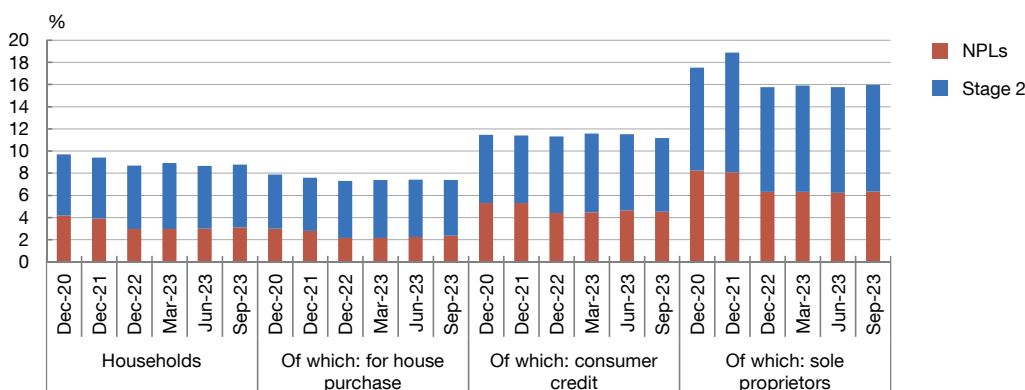
- The stock of non-performing bank loans (NPLs) to households grew slightly (4.2%) between 2023 Q1 and Q3, driven by loans for house purchase and consumer credit. However, in September 2023 banks' stock of NPLs was still down by 7.1% year-on-year (see Chart 9.a).
- By contrast, Stage 2 loans were down by 6.1% in the same period, with the declines widespread across all segments. Nonetheless, Stage 2 loans were still up by 10.1% on September 2022.
- In any event, the total stock of problem loans (NPLs and Stage 2 loans) to households on banks' balance sheets fell slightly between 2023 Q1 and Q3.
- The NPL ratio for households stood at 3.1% in September 2023, up slightly on the March figure (see Chart 9.b). Conversely, the ratio of Stage 2 loans declined somewhat compared with March, to 5.7% in September.

Chart 9

9.a Change in non-performing and Stage 2 loans to households (a)



9.b NPL and Stage 2 loan ratios. Households (a) (b)



SOURCE: Banco de España.

- a NPLs and Stage 2 loans refer to the gross carrying amount of troubled assets in deposit institutions' portfolios. Loans are classified as non-performing when they are in default (there are amounts more than 90 days past due) or when there are indications that the loan is unlikely to be paid (e.g. the equity of a firm is negative). Loans are classified as Stage 2 when their credit risk has increased significantly since initial recognition, but they do not meet the requirements to be classified as non-performing. They generally include those with amounts more than 30 days past due.
- b The NPL and Stage 2 loan ratios are calculated as the amount of those troubled loans to total loans held by deposit institutions.

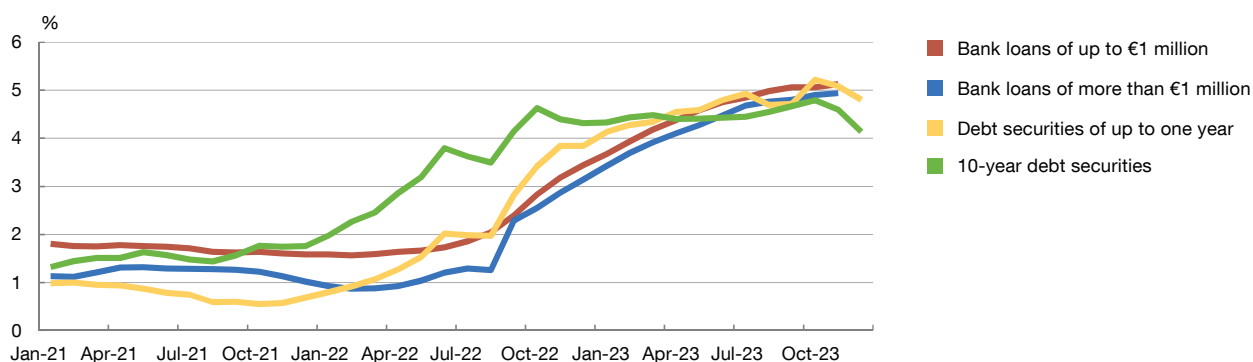


## 10 For firms, the cost of new bank lending has continued to rise, whereas bond issuance costs have fallen recently, ...

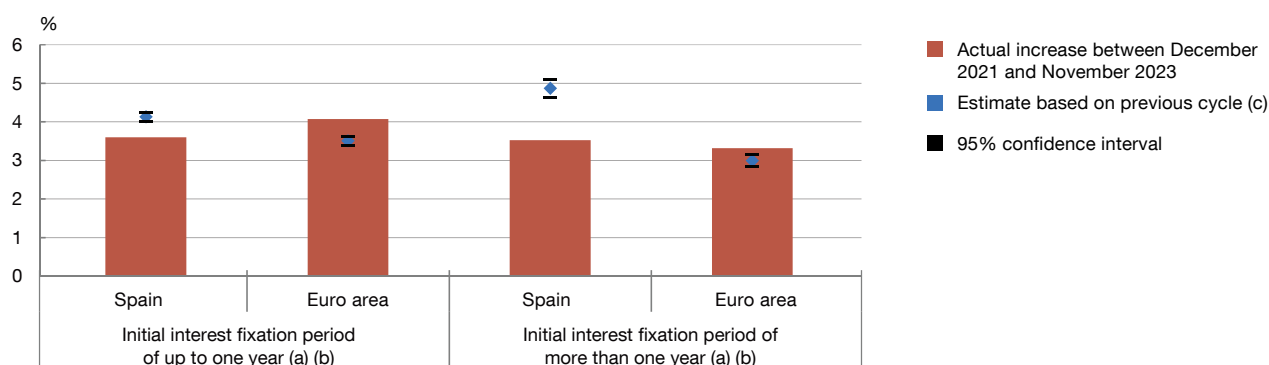
- The average interest rate on new lending stood at over 5% in November, up by 38 bp on the mid-2023 figure for loans of less than €1 million and up by 47 bp on that for larger loans (see Chart 10.a).
- Bond issuance costs rose in September and October, but subsequently decreased. This reflected movements in risk-free rates, shaped by changing **monetary policy expectations**, along with developments in term premia.
- In the current monetary tightening cycle, lending interest rates have risen somewhat less forcefully than the historical regularities would suggest due to a smaller than expected increase in recent months (see Chart 10.b). In the euro area, by contrast, the pass-through has remained more substantial.

Chart 10

10.a Cost of new financing to NFCs by loan size, maturity and instrument (a)



10.b Bank lending rates to firms during the monetary tightening cycle



SOURCES: Bloomberg Data License, ECB and Banco de España.

- a The latest data are for November (bank loans) and December (debt securities). Bank rates are narrowly defined effective rates (NDEs), adjusted for seasonal and irregular components (small changes in the series with no recognisable pattern in terms of periodicity or trend).
- b The maturity refers to the interest rate fixation period.
- c Resulting bank interest rate if the current cycle's increase in the market interest rate had been passed through similarly to the previous cycle, according to standard error-correction models estimated for the period between January 2003 and August 2007.

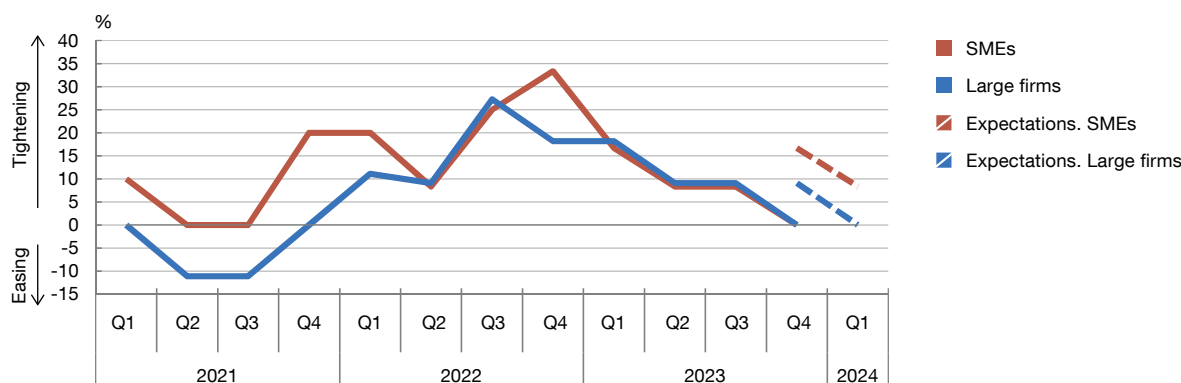


## 11 ... and their access to credit deteriorated further in 2023 H2, particularly for SMEs

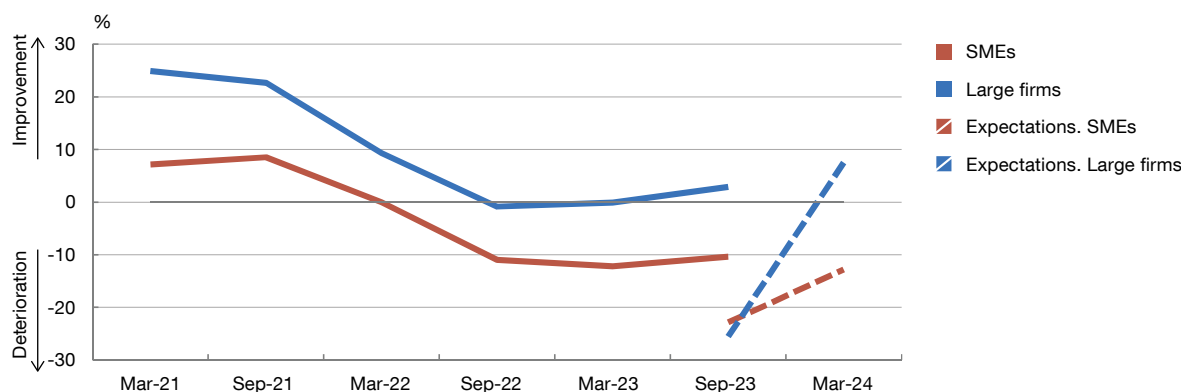
- According to the BLS, credit standards for firms tightened again in 2023 Q3 but held unchanged in Q4 (see Chart 11.a).
- In addition, the Survey on the Access to Finance of Enterprises (SAFE) in the euro area reveals that Spanish SMEs' perception of bank credit availability deteriorated further between April and September 2023, albeit less than anticipated six months earlier (see Chart 11.b).
- Both the BLS and the SAFE point to the worsening economic outlook as the main reason for the lower loan supply. However, as the SAFE also shows, access to credit remains the least-reported major concern for firms' business. For instance, just 6.7% of the Spanish SMEs surveyed reported it as their main concern, one of the lowest levels in the survey's history.

Chart 11

11.a Change in bank lending standards for NFCs. BLS (a)



11.b Change in perceived bank loan availability among Spanish firms. SAFE (b)



SOURCES: ECB and Banco de España.

- a Percentage of banks reporting a tightening less percentage of banks reporting an easing.  
 b Percentage of SMEs reporting an improvement less percentage of SMEs reporting a deterioration.

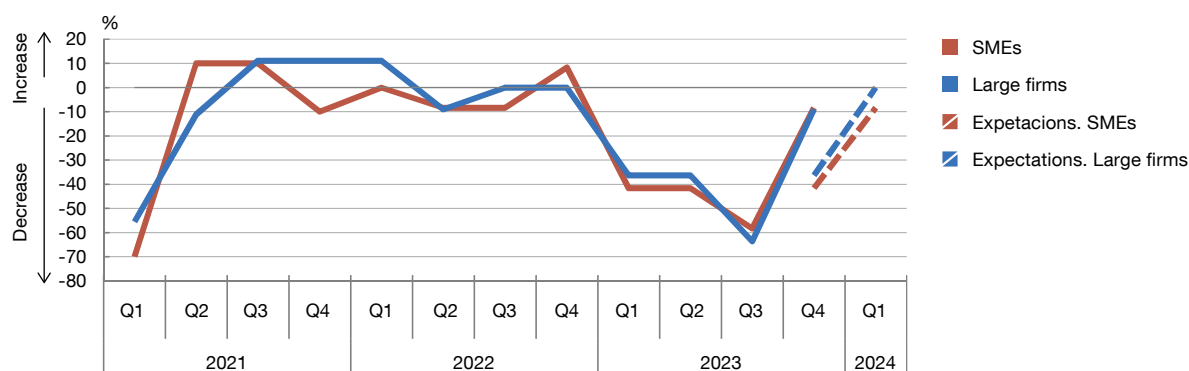


## 12 Firms' demand for credit continued to decline

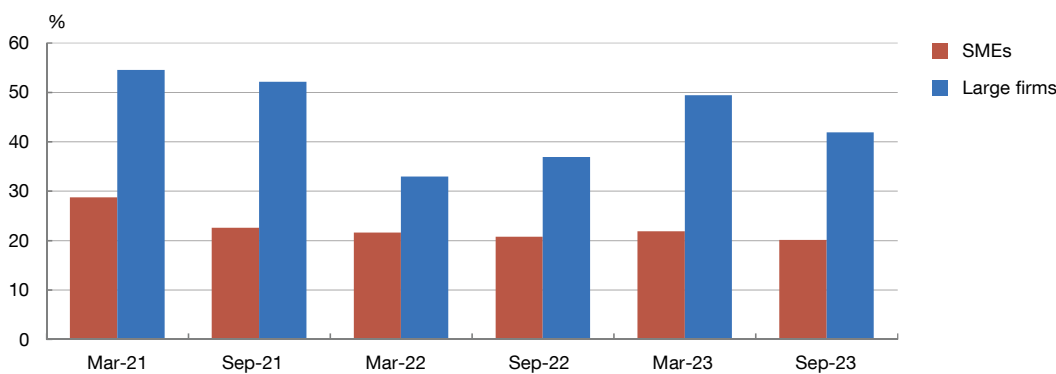
- The banks participating in the BLS reported a further drop in credit demand across all firm sizes in 2023 Q3. This decline extended into Q4, albeit softening considerably (see Chart 12.a). Looking ahead to 2024 Q1, the respondent banks expected demand to shrink only slightly in the SMEs segment and to remain unchanged among large firms.
- This drop in demand mainly owes to higher interest rates and lower financing needs for fixed investment.
- The SAFE results likewise indicated a fall in the percentage of firms applying for bank loans between April and September 2023 (see Chart 12.b), with the figure for SMEs reaching its lowest level since the survey began in 2009.

Chart 12

12.a Change in Spanish NFCs' demand for bank loans. BLS (a)



12.b Spanish firms applying for bank loans. SAFE



SOURCES: ECB and Banco de España.

a Percentage of banks reporting an increase less percentage of banks reporting a decrease.

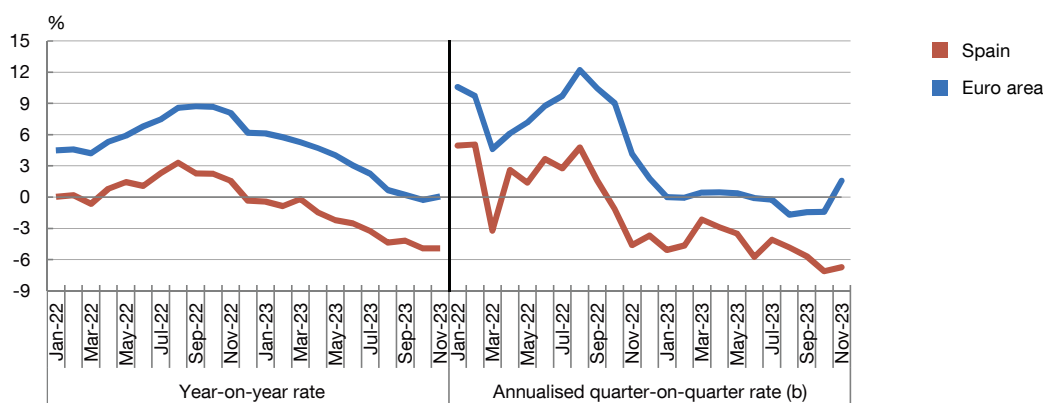


### 13 As a result, the decline in bank financing raised by Spanish firms has steepened in recent months

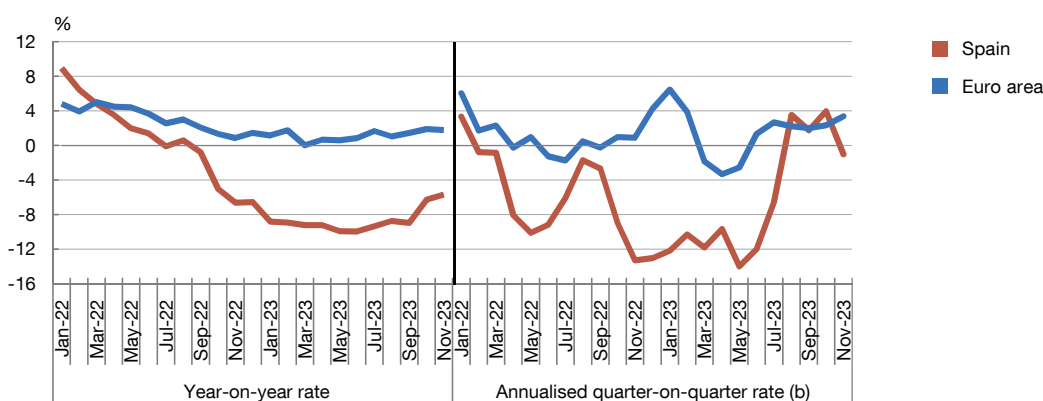
- The contraction in the stock of lending to firms deepened in recent months, recording year-on-year falls not seen since early 2015 (around 5%) (see Chart 13.a). The latest data also show this drop gaining momentum in annualised quarter-on-quarter terms. A similar moderating profile has been observed in the euro area, albeit starting from higher growth rates and with the stock of credit only shrinking in the last few months. The latest data available (for November) show a pick-up in credit in the euro area.
- Conversely, the year-on-year drop in financing raised by Spanish firms through bond issuance moderated somewhat, to 4.8% in November (see Chart 13.b). The most recent period even saw positive quarter-on-quarter rates. Bond financing in the euro area also appears to have picked up in recent months.

Chart 13

13.a Change in the stock of outstanding bank loans to NFCs (a)



13.b Change in the outstanding amount of debt securities issued by NFCs (c)



SOURCES: ECB and Banco de España.

a Securitisation adjusted data.

b Seasonally adjusted data.

c The data for Spain include issuances by non-resident subsidiaries, but the euro area data do not (they do include issuances within the euro area when the parent and subsidiary reside in different countries).



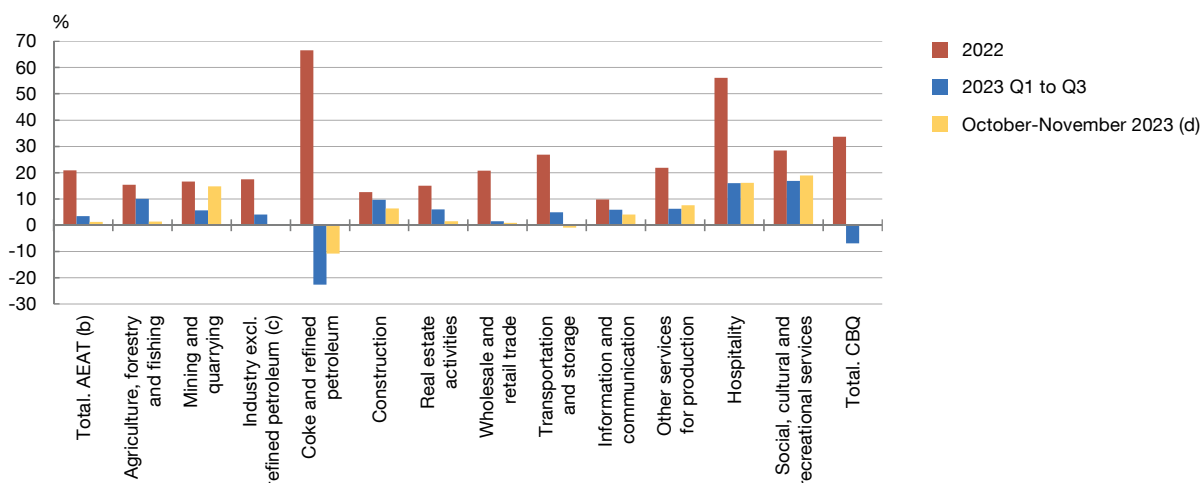


## 14 Turnover grew in the first three quarters of 2023, but at a more moderate pace than a year earlier

- According to the **Spanish tax authorities (AEAT)**<sup>1</sup> nominal turnover grew by 3.4% in the period January-September 2023, a more moderate rate than in the same period of 2022 (see Chart 14.a). Turnover was up across all sectors included in the statistic, except refined petroleum products, whose turnover fell following the extraordinary growth seen in 2022, conditioned by oil prices in both years. The October and November data for a sample of large firms<sup>2</sup> point to very slight turnover growth (1.2%). For nearly all sectors that increase would be similar or somewhat smaller than that recorded to September.
- In a similar vein, the **Central Balance Sheet Data Office Quarterly Survey (CBQ)**<sup>3</sup> shows that median turnover grew by 4.9% year-on-year in the first three quarters of 2023. Conversely, aggregate turnover was down by 7% due to the energy sectors (not included in the AEAT figures), refined petroleum products and fuel retailers, whose turnover contracted significantly as a result of lower prices.
- For Q4, the **Banco de España Business Activity Survey (EBAE)** indicates that turnover held stable compared with the previous quarter, albeit with notable cross-sector heterogeneity.

Chart 14

14.a Turnover. NFCs. Year-on-year rate of change (a)



SOURCES: AEAT (VESGEP, VESGE) and Banco de España.

- a Sectoral breakdown taken from AEAT statistics, except for "Coke and refined petroleum", which is taken from the CBQ.  
 b The following sectors are not included: the energy sectors (mining and quarrying and electricity, gas and water supply), education, health, public administration and financial and insurance activities.  
 c Data unavailable for October and November 2023.  
 d AEAT data for a sample of some 30,000 large firms (turnover of more than €6.01 million in the calendar year).



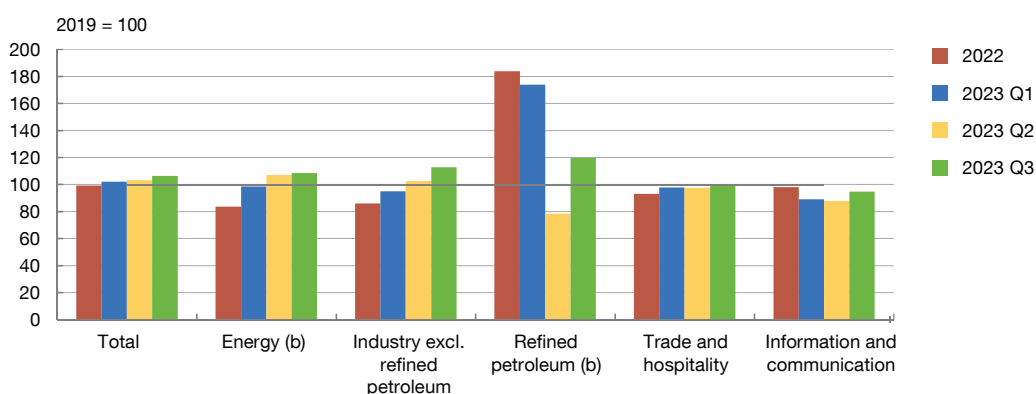
- 1 Data for over one million firms.
- 2 Drawn from the VAT returns of 30,000 large firms (those with annual turnover of more than €6.01 million).
- 3 Data for 938 firms that, at 22 November, had sent their data for the first three quarters of 2023 (12% of the sector's total gross value added, according to National Accounts).

## 15 Margins on sales rose moderately in general, to slightly above pre-pandemic levels

- In 2023 Q3 margins on sales continued to increase moderately, both overall for the firms in the AEAT database and in most of the sectors analysed, to levels similar or slightly higher than in 2019 in almost all cases (see Chart 15.a).
- The refined petroleum products and information and communication sectors were the only two sectors whose margins on sales were lower in 2023 Q3 than a year earlier. However, while in the former this indicator continued to exceed pre-pandemic levels, in the latter it was still slightly below the 2019 value.

Chart 15

15.a Margins on sales (a). NFCs. AEAT data



**SOURCES:** AEAT (Tax returns for VAT and withholdings on labour income) and Banco de España.

**a** Defined as  $GOP$  (calculated as  $Turnover - Procurements - Wages$ ) /  $Turnover$ . Calculations based on the moving sum of four quarters.

**b** Information from the CBQ.

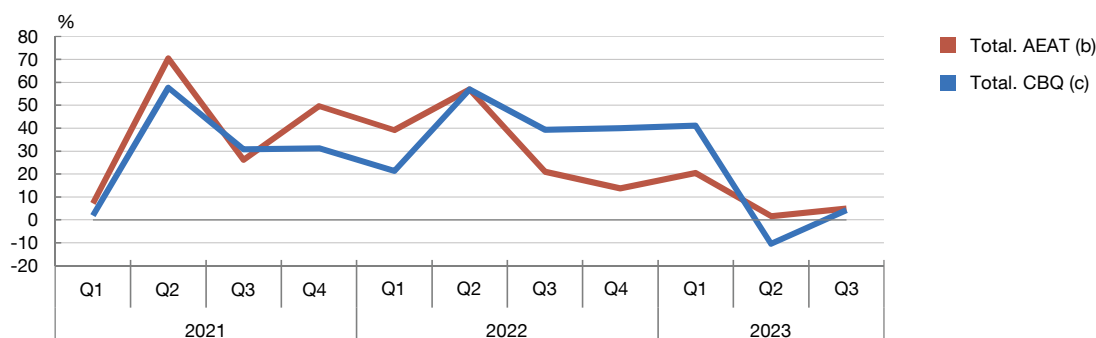


## 16 The increase in turnover and sales margins pushed up profit, although this profit growth slowed from Q2 onwards

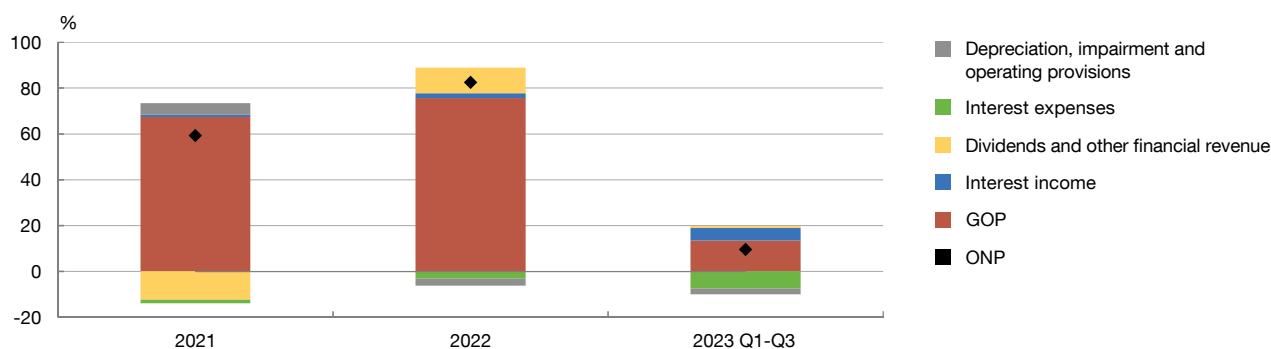
- AEAT data<sup>4</sup> point to year-on-year growth in gross operating profit (GOP), in nominal terms, of 9% between January and September 2023, well below that recorded in the same period of the previous year. The quarterly profile shows a significant slowdown in Q2 and Q3 (see Chart 16.a). A very similar pattern emerges from the CBQ data.
- According to the CBQ, the sharp increase in financial costs detracted 7.6 pp from average growth in ordinary net profit (ONP) over the first three quarters of 2023 (more than double its negative impact in the previous year). This effect was partially offset by higher interest and dividend income received and, above all, by the increase in GOP, resulting in a 13.4% increase in ONP in this period (see Chart 16.b).

Chart 16

16.a GOP (a). NFCs. Year-on-year rate of change



16.b Year-on-year ONP growth (d). Contribution by component. CBQ (c)



SOURCES: AEAT and Banco de España.

a GOP is obtained by subtracting intermediate consumption and personnel costs from output.

b The following sectors are not included: education, health, public administration, recreation, financial and insurance institutions and other services.

c CBI and CBQ data do not include holding companies.

d ONP is defined as GOP plus net financial revenue less net depreciation, impairment and operating provisions.



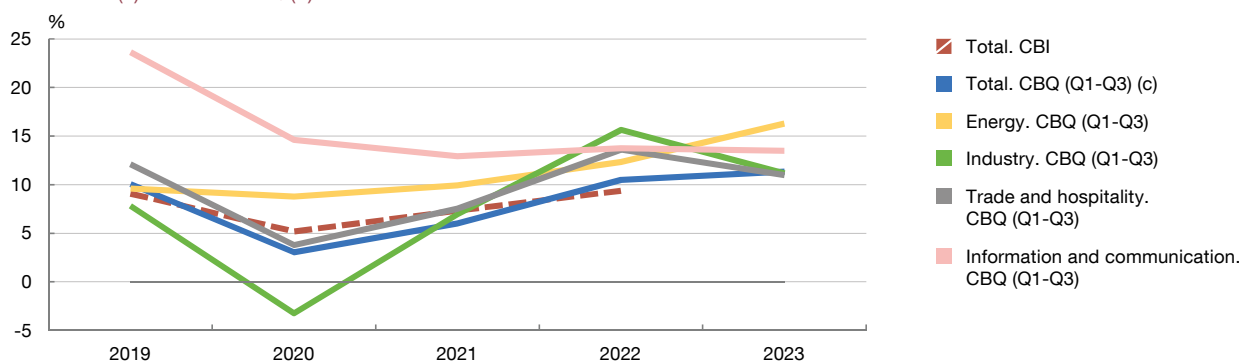
4 Data for the refined petroleum and energy sectors are from the CBQ.

## 17 Firms' profitability improved on aggregate, with some sectoral heterogeneity, while liquidity buffers continued to decline

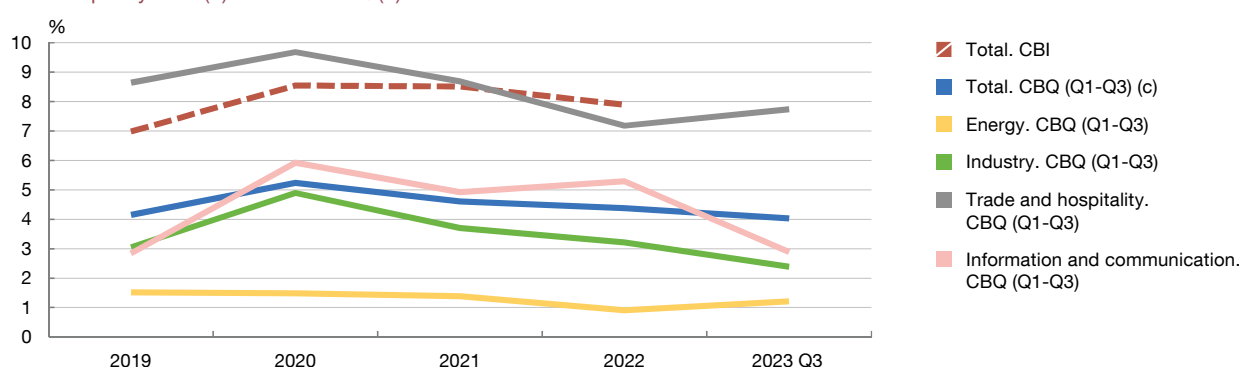
- The return on equity (ROE) of the CBQ sample (excluding holding companies) stood at 11.4% in the first three quarters of 2023, almost 1 pp higher than in the same period of 2022 and 1.3 pp higher than in the first three quarters of 2019 (see Chart 17.a).
- The sectoral breakdown shows mixed developments. For instance, profitability was up in the energy sector and remained unchanged in the information and communication sector, but was down both in the trade and hospitality sector and in industry.
- According to the CBQ, in 2023 firms' average liquidity ratio<sup>5</sup> remained on the declining trend of a year earlier. However, there is some heterogeneity across sectors (see Chart 17.b).

Chart 17

17.a ROE (a). CBI and CBQ (b)



17.b Liquidity ratio (d). CBI and CBQ (b)



SOURCE: Banco de España.

a Ratio defined as ONP / Own funds.

b CBI and CBQ data do not include holding companies.

c In addition to the sectors shown in the chart, the CBQ total includes transportation and storage, activities with limited coverage (for example, construction) and other services, and this can lead to the total levels of some indicators being lower than the sum of the sectors depicted.

d Ratio defined as Cash and cash equivalents / Total assets.



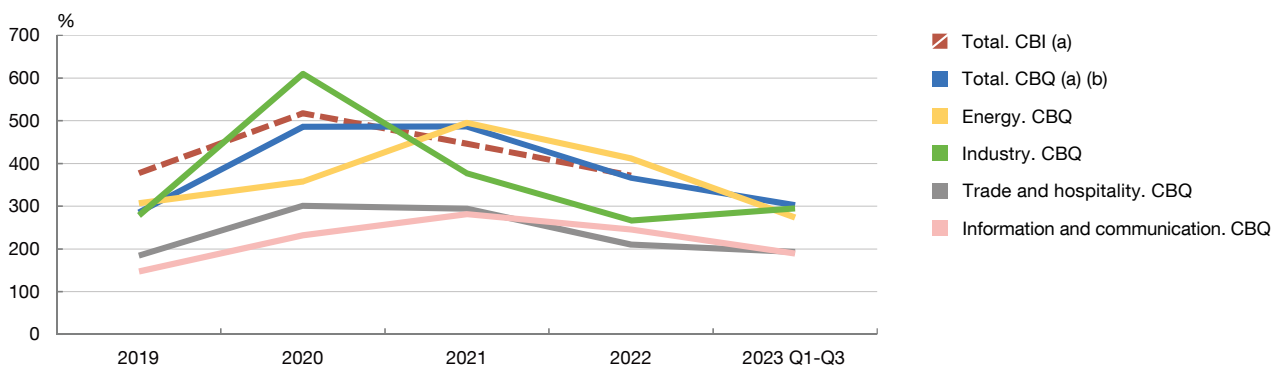
5 Defined as cash and cash equivalents divided by total assets. The average ratio for Central Balance Sheet Data Office integrated database (CBI) firms is higher than that of the CBQ because smaller firms, which account for a far larger share of the total in the CBI, have larger liquidity buffers.

## 18 Firms' debt-to-income ratio continued to fall, despite the rising debt burden as interest expenses increased

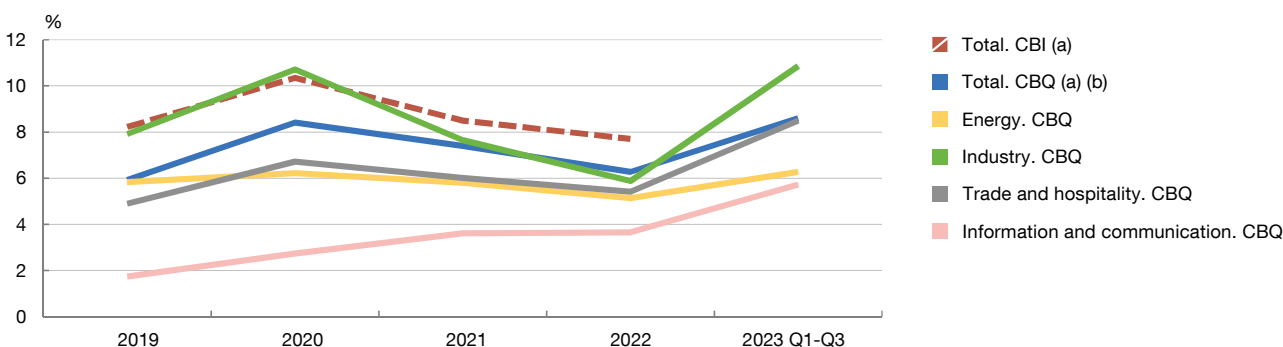
- In the period January–September 2023, the average ratio of debt to ordinary profit (GOP plus financial revenue) for CBQ firms declined further across all sectors (see Chart 18.a). This was the result of both higher profit and lower debt. Aggregate data for the corporate sector follow a similar pattern, with the aggregate debt-to-GDP ratio standing at 65.6% in 2023 Q3, a level not seen since 2002 and 2.5 pp lower than the euro area average.
- Conversely, the average debt burden ratio (the ratio of interest expenses to ordinary profit) climbed slightly in the first three quarters of 2023, reversing the previous downward trend (see Chart 18.b). This owed to higher interest expenses, which slightly outpaced the growth in ordinary profit. The breakdown by sector shows this happened across the board. However, on aggregate and with current market expectations, monetary policy transmission to interest payments on outstanding loans is at a very advanced stage (see Box 1).

Chart 18

18.a Debt-to-income ratio: Interest-bearing borrowing / (GOP + Financial revenue)



18.b Debt burden: Interest on borrowed funds / (GOP + Financial revenue)



SOURCE: Banco de España.

a CBI and CBQ data do not include holding companies.

b In addition to the sectors shown in the chart, the CBQ total includes transportation and storage, activities with limited coverage (for example, construction) and other services, and this can lead to the total levels of some indicators being higher than the sum of the sectors depicted. Annual data have been calculated using the CBI. Quarterly data, which have been linked with the latest annual data, have been calculated using the CBQ.

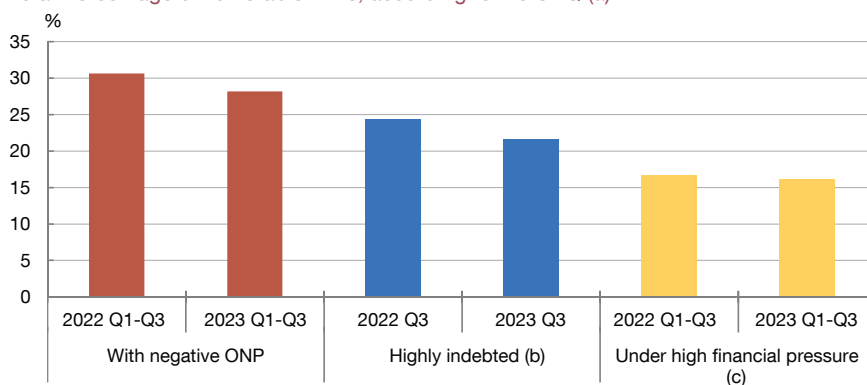


## 19 According to the CBQ, the percentage of vulnerable firms decreased in the first three quarters of 2023

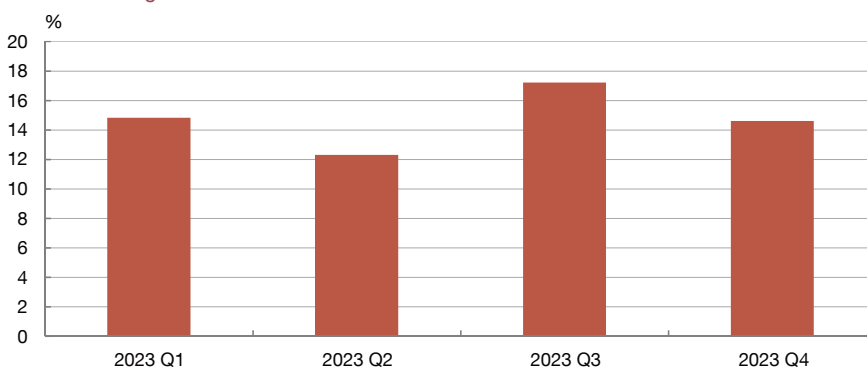
- According to the CBQ, there was a decrease in the percentage of firms with negative ONP or that are highly indebted or under high financial pressure (i.e. those whose earnings do not cover their interest expenses) (see Chart 19.a).
- However, given that the CBQ mainly includes large firms, Box 2 simulates how financial pressure would evolve for a more representative sample and shows that the percentage of firms under high financial pressure would increase in 2023 and stabilise in 2024, taking into account market expectations for interest rate developments.
- Moreover, qualitative information from the EBAE suggests that the percentage of firms whose economic and financial situation deteriorated<sup>6</sup> rose in Q3 (to 18%), but partially corrected in Q4 to 15% (see Chart 19.b).

Chart 19

19.a Percentage of vulnerable firms, according to the CBQ (a)



19.b Percentage of firms whose economic and financial situation has deteriorated. EBAE (d)



SOURCE: Banco de España.

a Excluding holding companies.

b Net financial debt is defined as interest-bearing borrowing less cash and cash equivalents. Firms are classified as highly indebted if their ratio of Net financial debt / (GOP + Financial revenue) is higher than 10 or if they have positive net financial debt and zero or negative earnings.

c Firms under high financial pressure are proxied as those whose earnings do not cover their interest expenses.

d Firms whose economic and financial situation has deteriorated are defined as those simultaneously reporting a decrease in their turnover and profits in the current quarter, but not in their level of indebtedness (Debt / Total assets).



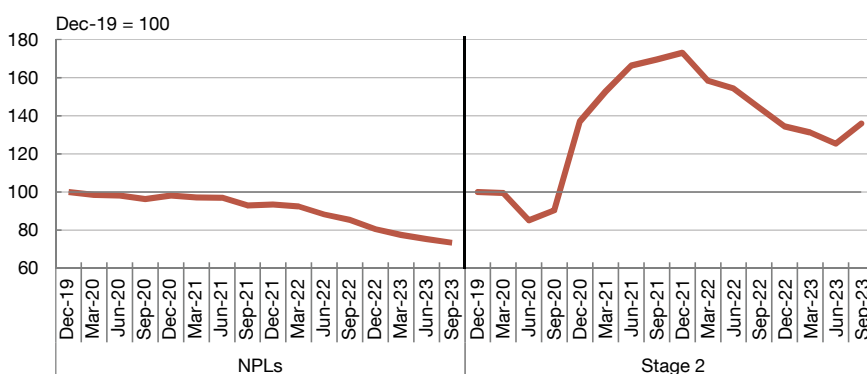
<sup>6</sup> Those that have reported a decline in their turnover and profit in a quarter, but whose level of indebtedness has not decreased.

## 20 NPLs to firms fell further in the period March-September 2023, while Stage 2 loans picked up in Q3

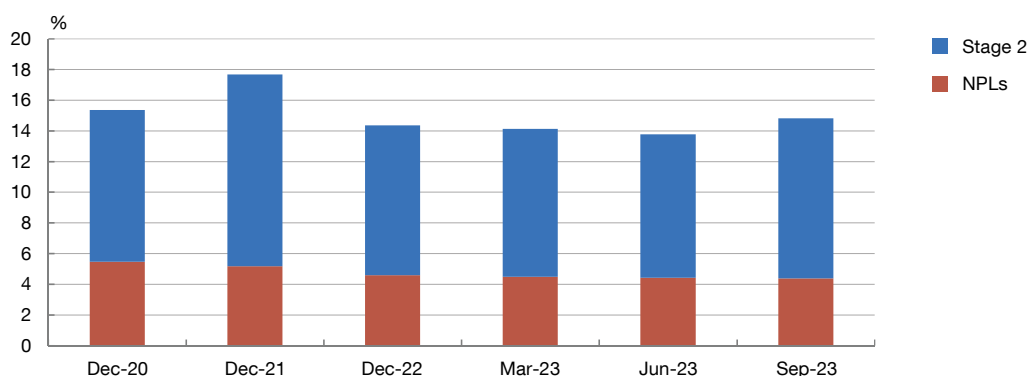
- NPLs to non-financial corporations (NFCs) in banks' credit portfolio continued to fall, albeit at a declining pace. There was a 5.5% reduction between March and September, bringing the year-on-year decline in Q3 to 13.8% (see Chart 20.a).
- However, Stage 2 loans picked up in 2023 Q3, although they still declined in year-on-year terms by 5.3%.
- The NPL and Stage 2 ratios stood at 4.4% and 10.4%, respectively, in September (see Chart 20.b). Although the NPL ratio for firms as a whole has held steady recently, the Stage 2 ratio increased by 1 pp compared with the previous quarter.

Chart 20

20.a Change in non-performing and Stage 2 loans to NFCs (a)



20.b NPL and Stage 2 loan ratios. NFCs (a) (b)



SOURCE: Banco de España.

- a NPLs and Stage 2 loans refer to the gross carrying amount of troubled assets in deposit institutions' portfolios. Loans are classified as non-performing when they are in default (there are amounts more than 90 days past due) or when there are indications that the loan is unlikely to be paid (e.g. the equity of a firm is negative). Loans are classified as Stage 2 when their credit risk has increased significantly since initial recognition, but they do not meet the requirements to be classified as non-performing. They generally include those with amounts more than 30 days past due.
- b The NPL and Stage 2 loan ratios are calculated as the amount of those troubled loans to total loans held by deposit institutions.

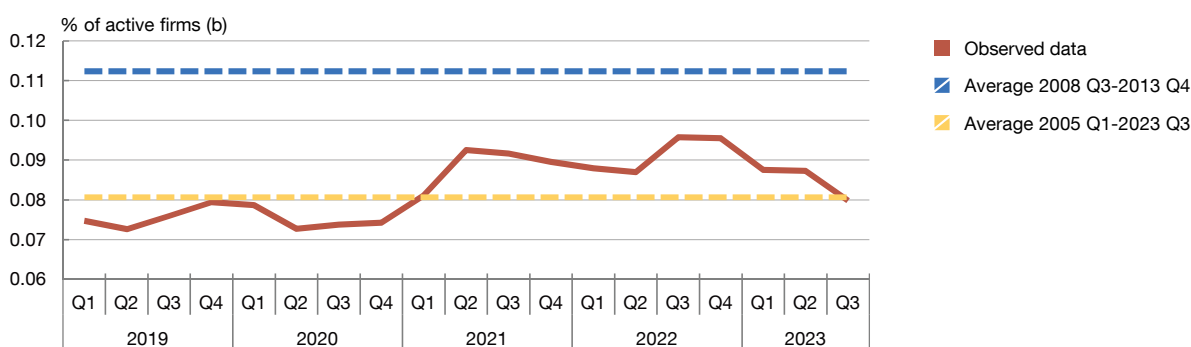


## 21 Insolvencies declined and net business creation picked up

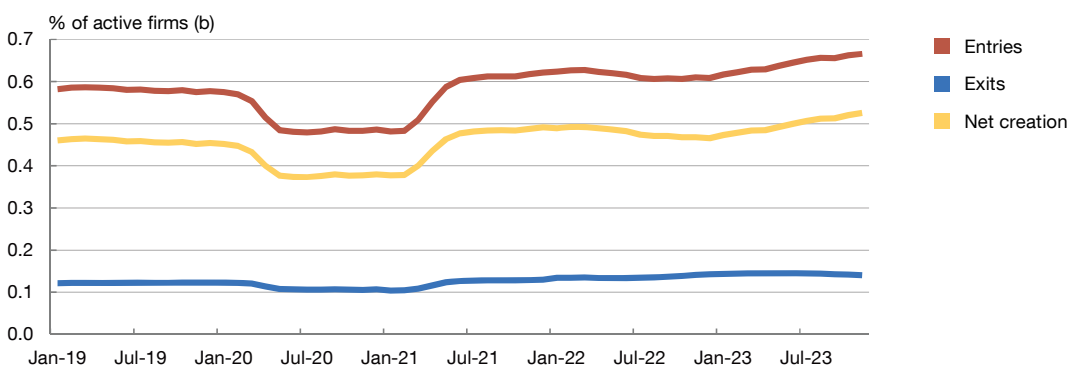
- The number of NFC insolvencies declined in 2023 Q2 and, especially, Q3 (on a four-quarter moving average basis) (see Chart 21.a). Thus, in Q3, the insolvency rate (as a percentage of active firms) stood at levels similar to the historical average since 2005, and significantly below the figures seen during the global financial crisis.
- The net business creation rate picked up, to stand at 0.5% of total active firms in September 2023. This is mainly explained by the rise in firm entries, since the number of exits remained relatively stable (see Chart 21.b). In September the number of active firms stood close to pre-pandemic levels.

Chart 21

21.a Number of insolvencies. NFCs (a)



21.b Firm entries, firm exits and net business creation (c)



SOURCES: INE and Colegio de Registradores.

- a Latest observation: 2023 Q3. Moving four-quarter averages. The NFC insolvency series is shown as a percentage of the number of active firms at 1 January each year.
- b The total number of active firms is taken from the the Central Business Register (DIRCE) and is the sum of (i) public limited companies, (ii) private limited companies, (iii) general partnerships, (iv) limited partnerships, (v) joint ownerships and (vi) cooperative societies.
- c Latest observation: November 2023. Moving 12-month averages. The firm entries, firms exits and net creation (entries minus exits) series are shown as a percentage of the number of active firms at 1 January each year.





## Box 1

**MONETARY POLICY TRANSMISSION TO INTEREST PAYMENTS ON THE BANK DEBT OF HOUSEHOLDS AND FIRMS**

The European Central Bank (ECB) began to change its monetary policy stance in December 2021. This mainly manifested itself in a sharp increase in policy rates, which rose by 450 basis points (bp) between July 2022 and September 2023. As a result, interest payments made by indebted households and firms rose through what is known as the income channel of monetary policy transmission.<sup>1</sup> The sector accounts of the National Accounts reflect this change, as they capture a swift and significant increase in interest payments<sup>2</sup> from their record-low levels before the rate hiking cycle began (see Chart 1). Interest payments in September 2023 reached levels similar to those of a decade prior, below the highs of 2008-2009.

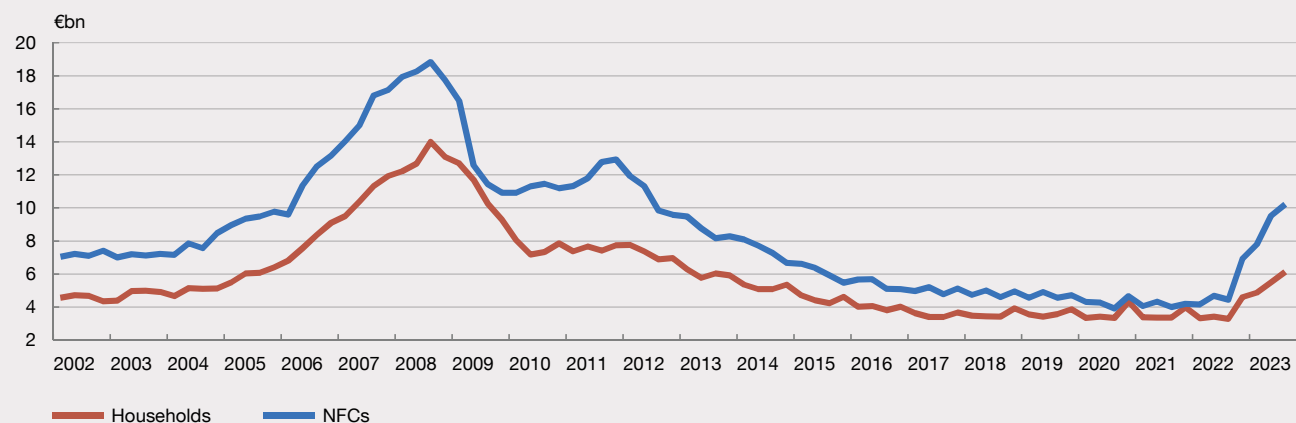
This box uses granular information from the Central Credit Register (CCR) on household mortgages and bank loans to non-financial corporations (NFCs)<sup>3</sup> to characterise the process of monetary policy transmission to interest payments on bank debt and map the future path drawing on market expectations for interest rates.

The speed with which monetary policy is passed through to interest payments on bank debt (whether mortgages or

business loans) depends on the debt's contractual terms. Interest payments on variable-rate loans are reviewed at the frequency specified in the contract and in accordance with the development of the reference interest rate index. On CCR data, in November 2023 variable-rate loans<sup>4</sup> constituted slightly less than 70% of the outstanding stock of household mortgages and business loans (see Chart 2). In the case of mortgages, interest rates are most commonly reviewed annually (62%, compared with 30% that are reviewed half-yearly) while business loans are usually reviewed quarterly (52%, compared with 18% that are reviewed half-yearly and 17% reviewed annually).<sup>5</sup> The usual reference rate in these two lending segments is the 12-month EURIBOR (more than 90% of household mortgages and nearly 47% of business loans), although 24% and 12% of variable-rate business loans are indexed to the 3-month and 6-month EURIBOR, respectively.

Interest payments on fixed-rate loans are specified at inception. As a result, rising market rates would only increase the interest burden on the borrower if the loan is rolled over upon maturity, which is common in short-term

Chart 1  
Quarterly interest payments by Spanish households and firms to September 2023 (a)



SOURCE: INE. Quarterly Non-Financial Accounts for the Institutional Sectors.

a Non-seasonally adjusted and prior to the allocation of FISIM.

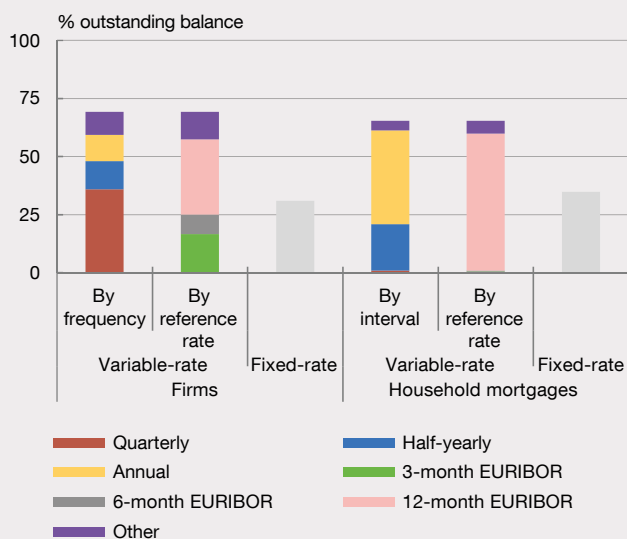


- 1 For more details on the ECB's response and monetary policy transmission channels, see Banco de España. (2023). "Chapter 3. The current episode of price pressures in the euro area, the monetary policy response and its effects". In Banco de España. Annual Report 2022, pp. 138-180.
- 2 These concern interest payments associated with the total debt and before allocation of financial intermediation services indirectly measured (FISIM).
- 3 Mortgage loans are identified as loans with collateral granted for housing. Only financial loans are considered for firms (i.e. excluding trade credit and credit cards, which account for around 10% of bank credit).
- 4 Mixed-rate loans are considered to be variable-rate loans.
- 5 The "other" category in Chart 2 covers loans with a monthly review frequency (8% of business loans and 1% of household mortgages), those with a review period longer than one year (16% of business loans and 6% of household mortgages), as well as other less-common types.

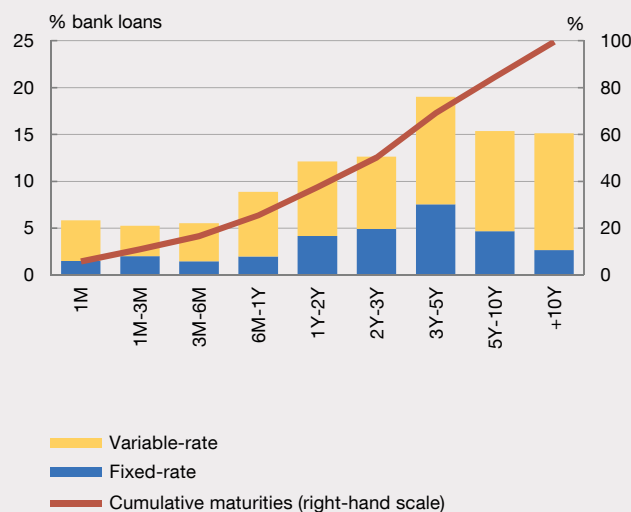
Box 1

**MONETARY POLICY TRANSMISSION TO INTEREST PAYMENTS ON THE BANK DEBT OF HOUSEHOLDS AND FIRMS (cont'd.)**

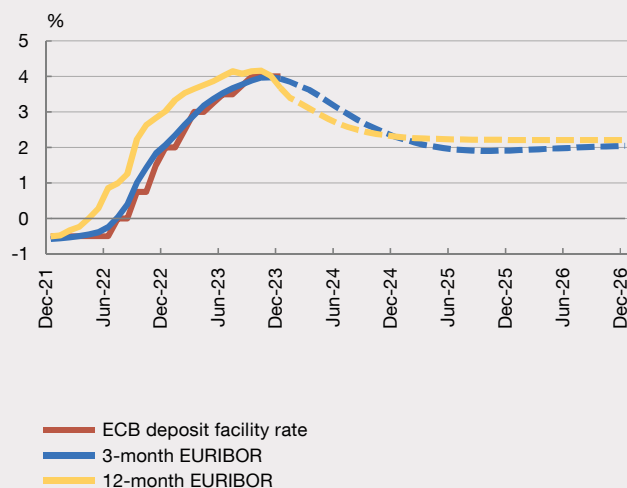
**Chart 2**  
Breakdown of bank loans (a). November 2023



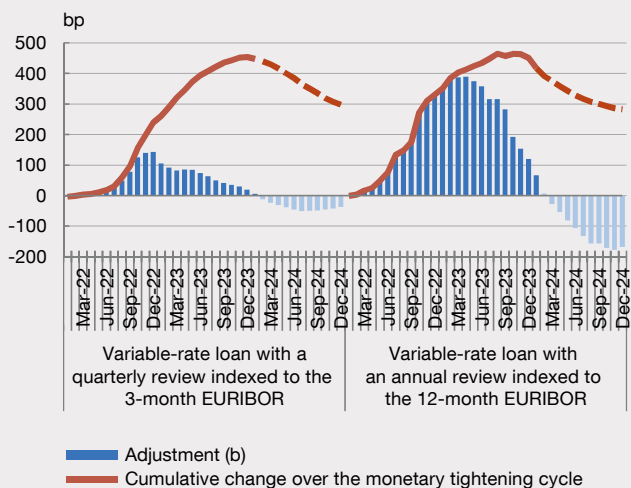
**Chart 3**  
Bank loans to firms. Residual maturity structure (a). November 2023



**Chart 4**  
Interest rates (monthly average).  
Latest data December 2023 and Market forecasts from 29.12.2023



**Chart 5**  
An example of changes in reference rates (b)



**SOURCES:** CCR, Refinitiv Datastream, ECB and Banco de España.

- a Mixed-rate loans are considered to be variable-rate loans.
- b For each month, the change in the interest rate applicable to a bank loan with a reset in that month is shown. The example distinguishes between a loan with a quarterly review indexed to the 3-month EURIBOR and a loan with an annual review frequency indexed to the 12-month EURIBOR. A delay of one month is used in both cases, i.e. the interest rate adjustment of a loan with a quarterly (annual) review with a review in January 2024 is based on the change in the 3-month (12-month) EURIBOR between September and December 2023 (December 2022 and December 2023). The latest observed data are from December 2023. Market expectations implicit in the yield curves are used for later months, estimated on the basis of the prices of financial derivative linked to interbank rates on 29 December 2023.



## Box 1

**MONETARY POLICY TRANSMISSION TO INTEREST PAYMENTS ON THE BANK DEBT OF HOUSEHOLDS AND FIRMS (cont'd.)**

lending to firms. CCR data show that the average residual maturity of bank loans to firms was around five years in November 2023, with one-quarter of this amount maturing within the following 12 months, of which nearly 30% are fixed-rate (see Chart 3).

As noted previously, variable-rate bank loans are commonly indexed to the EURIBOR, which is the first link in the chain of monetary policy transmission (see Chart 4). The EURIBOR is closely linked to policy rates and expectations for them in the reference period. In this monetary tightening cycle, 3-month and 12-month interbank rates peaked in October 2023 at a monthly average of 3.97% and 4.16%, respectively. From there, they began to decline, more steeply in the case of the 12-month EURIBOR, as expectations of policy rate cuts in 2024 were brought forward and heightened. The 12-month EURIBOR fell by 14 bp and 34 bp in November and December, respectively, to stand at 3.68%. Market expectations for the EURIBOR (proxied by the prices of financial derivatives at end-December) suggest that market rates will continue to drop in the coming months.

In this context, higher reference rates have been almost fully passed through to variable-rate loans. By way of example, Chart 5 shows changes in interest rate reviews of two representative types of loan: variable-rate loans with quarterly and annual review frequencies, based on the 3-month and 12-month EURIBOR rates and the projected rates drawing on the implicit market expectations at end-December. Reviews are applied with a one-month delay, i.e. the review in any given month depends on changes in the EURIBOR reference rate up to the previous month. Under these circumstances, loans with a quarterly review frequency and a rate adjustment in January 2024 (whether household mortgages or business loans) would see an increase of just 5 bp, with the total increase since the beginning of the tightening cycle amounting to nearly 450 bp. Loans with an annual review frequency and a rate adjustment in January 2024 would see an increase of around 65 bp – nearly 420 bp in total since December 2021. Based on current market expectations for interest rates, reviews will begin to move in a downward direction in March 2024 for loans with an annual review frequency that are indexed to the 12-month EURIBOR, with rates

expected to decrease by more than 150 bp for reviews in the last part of 2024. In any case, the overall change over the course of the monetary tightening cycle will still amount to a significant rise.

CCR data enable the pending pass-through of market rates to the cost of outstanding loans to be evaluated on the basis of both the loan-specific terms and observed and anticipated changes to reference rates.<sup>6</sup> To perform this exercise, it is assumed that households do not roll over their loans upon maturity.<sup>7</sup> For firms, however, an extreme assumption is made that their outstanding bank debt is fully rolled over in the form of a new loan under the same conditions (term and interest rate type). The exercise includes no additional assumptions for new credit and draws on CCR data available up to November 2023.

As shown in Chart 6, between December 2023 and March 2024 the debt burden associated with variable-rate loans and mortgages may increase or decrease, depending on the agreement's specific terms. The simulation based on the CCR data shows that almost 7% of the outstanding stock of variable-rate mortgages would see a cost rise of 100 bp or more between December 2023 and March 2024. Only 2% of the stock of fixed-rate business loans would undergo a cost increase in excess of 100 bp if rolled over. By contrast, around 25% of the outstanding stock of variable-rate business loans and nearly 10% of variable-rate household mortgages show a cost decrease of at least 50 bp to March 2024. A significant portion of the variable-rate portfolio (between 60% and 70%) is not subject to any review in this four-month period, meaning that its cost is unchanged.

In aggregate terms and given current market expectations, tighter monetary policy impulses appear to have been almost fully passed through to interest payments on outstanding variable-rate loans to households and firms by the end of 2023 (see Chart 7). Throughout 2024, interest payments on variable-rate loans are expected to decline somewhat before stabilising in 2025 at higher levels than those seen prior to the tightening cycle. Some upward movement still remains for fixed-rate business loans upon maturity, given the assumption of complete rollover and the fact that the bulk of these loans were

<sup>6</sup> These changes are proxied by the market expectations implicit in the yield curves, which are estimated on the basis of the prices of financial derivatives linked to interbank rates.

<sup>7</sup> In addition, the outstanding balance remains constant until maturity, i.e. it is assumed that no principal repayments are made before maturity and new credit has no effect.

## Box 1

**MONETARY POLICY TRANSMISSION TO INTEREST PAYMENTS ON THE BANK DEBT OF HOUSEHOLDS AND FIRMS (cont'd.)**

signed before the current rate hiking cycle. As for households, the exercise performed does not cover potential future dynamics in new lending and assumes that households do not roll over mortgages upon maturity. As new loans are granted and fixed-rate mortgages are

repaid, the interest payment burden will rise for the sector as a whole. This is because fixed-rate mortgages represented around 35% of the total outstanding stock of mortgages in November 2023 and most were agreed when interest rates were low.<sup>8</sup>

Chart 6  
Bank debt exposed to by interest rate adjustments between December 2023 and March 2024

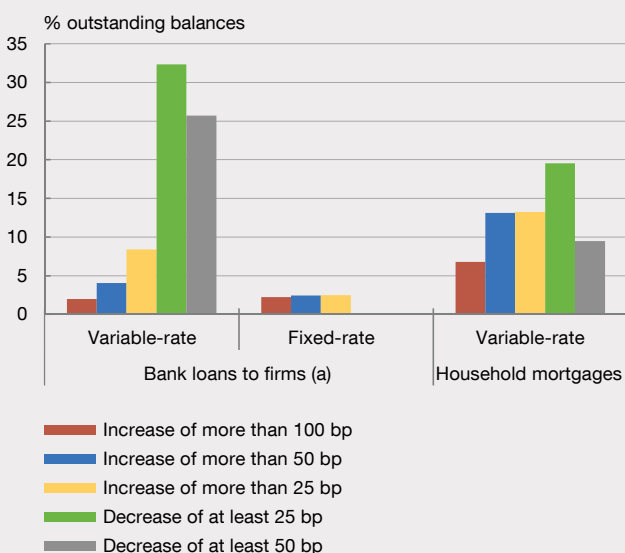
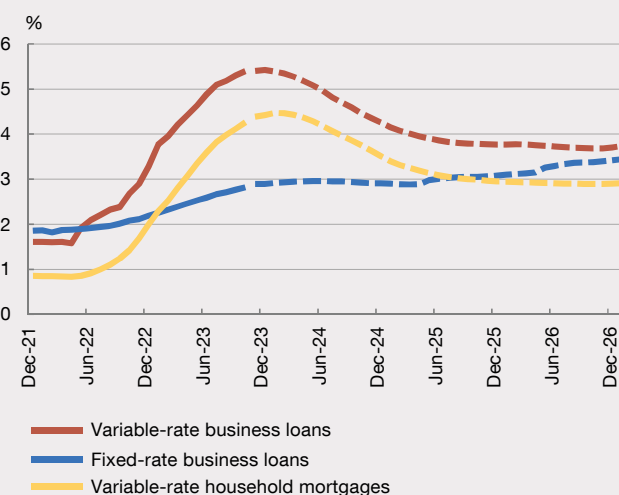


Chart 7  
Interest rates by loan type based on CCR data  
Observed and projected (b)



SOURCES: CCR, Refinitiv Datastream, ECB and Banco de España.



- a The extreme assumption is made that the outstanding bank debt is fully rolled over in the form of a new loan under the same conditions (term and interest rate type).
- b Observed rates to November 2023 show the average rate weighted by the outstanding balance at the end of each month. After December 2023, the expected cost is simulated using the implied forward rates of the overnight index swap (OIS) curve from December 2023. The estimated rates are weighted by the balances in November 2023.

<sup>8</sup> Specifically, in November 2023, 61% of the stock of fixed-rate mortgages were granted prior to 2022 with an average interest rate of around 2%, with another 16% signed between January and July 2022 with an average interest rate close to 1.6%. Fixed-rate mortgages agreed in the middle of the tightening cycle, between August 2022 and March 2023, accounted for 13% of the portfolio and those agreed at higher interest rates (above 3% on average) between March and October 2023 comprised just 10%. However, recently agreed mortgages may not all be new lending – some represent an amendment to the terms to opt for a fixed rate.

## Box 2

**THE IMPACT OF INTEREST RATE HIKES ON FIRMS' FINANCIAL PRESSURE**

Market rate hikes are passed through gradually to the average cost of firms' debt, although how quickly this occurs depends on the maturity structure of the debt, the type of interest accrued (fixed or variable) and the frequency of interest rate reviews. According to the results of Box 1, the average cost of firms' outstanding debt rose moderately in 2022. This trend appeared to intensify in 2023, but is expected to stall in 2024, and to even reverse in the case of variable-rate loans.

This box assesses the impact this gradual increase in the average cost of firms' debt has had to date, and the effect it could have in the future, on their capacity to meet interest payments using ordinary earnings for the year. To this end, firms under high financial pressure are defined as those whose interest expenses exceed the sum of their gross operating profit (GOP) and financial revenue. Such information for 2022 is already available for the sample from the Central Balance Sheet Data Office integrated database (CBI), which comprises nearly 600,000 firms.

Chart 1 shows the deviation in the percentage of firms under high financial pressure and their share in employment between 2019 and 2022 vis-à-vis the 2016-2019 average. As can be seen, as a result of the pandemic, the percentage of such firms increased significantly in 2020, owing chiefly to the strong decline in corporate earnings and, to a lesser extent, the rise in business debt, reflecting growing demand for credit to meet ordinary payments and build up liquidity reserves. Thanks to a recovery in corporate earnings and deleveraging, the percentage of firms under high financial pressure fell back in 2021, and – despite the average cost of debt rising by 29 basis points (bp), according to Central Credit Register (CCR) data (see Chart 2) – this trend continued in 2022, helped by the sound performance of corporate earnings in that year. Indeed, the percentage of such firms in 2022 appeared to fall slightly below the 2016-2019 average. For its part, the share in employment of firms under high financial pressure performed similarly, with decreases in both 2021 and 2022.

In the case of 2023, as accounting information is not yet available to calculate the percentage of firms under high financial pressure and their share in employment, simulations are conducted for both 2023 and 2024. These simulations draw on the CBI and CCR, the latter of which contains the characteristics of all outstanding bank loans in each month to November 2023 (latest data available at the cut-off date for this box). Specifically, three assumptions are made regarding the stock of firms' debt, their GOP and the cost of their debt:

- 1 As regards *firms' debt*, two alternative scenarios are envisaged:
  - a) *With full debt rollover*: firms roll over all their debt upon maturity, but do not arrange further debt, meaning that the stock of their debt remains constant.
  - b) *With no debt rollover*: firms do not arrange new debt, nor do they roll over their debt upon maturity, leading to a gradual reduction in the stock of debt as it is repaid. As the CBI only provides information about the amount of interest-bearing debt<sup>1</sup> maturing within one year, and not the exact due date, the maturity structure of interest-bearing debt is assumed to be the same as that of bank debt, for which such information is available in the CCR.<sup>2</sup>
- 2 Since financial information is only available to 2022, assumptions need to be made about firms' *GOP and financial revenue*. Two scenarios are considered:
  - a) *Constant GOP*: both GOP and financial revenue in 2023 and 2024 remain constant at 2022 levels, enabling the effect of higher financing costs to be examined in isolation.
  - b) *Uniform growth in GOP*: all firms post GOP growth at the same year-on-year rate in 2023 as between January and September 2023 (9%), based on State tax revenue service data. Growth of 4.5% is considered for 2024, in line with the Banco de España's forecast for nominal growth in the gross

1 Interest-bearing debt includes financing from credit institutions, bonds and other fixed-income securities, and interest-bearing loans from group companies.

2 Specifically, for 2023 it is assumed that all short-term interest-bearing debt (i.e. with a maturity of less than one year) included in the CBI for a given firm is repaid. The repayment date within the year is calculated so as to be consistent with the average maturity period of that firm's bank debt in December 2022, based on the CCR. The amount of interest-bearing debt maturing in 2024 is calculated by multiplying the long-term debt included in the CBI in December 2022 (i.e. debt which has a maturity of more than one year and, therefore, did not mature in 2023) by the percentage of the outstanding balance of bank debt maturing in 2024, drawing on CCR data. The 2024 repayment date is calculated so as to be consistent with the average maturity period of that firm's bank debt in November 2023, based on the CCR.

## Box 2

## THE IMPACT OF INTEREST RATE HIKES ON FIRMS' FINANCIAL PRESSURE (cont'd)

operating surplus of the Spanish economy. Financial revenue remains constant under this scenario as well.

3 To calculate the *interest rate* applicable to each firm, CCR loan-level data are used and a projection made drawing on market expectations<sup>3</sup> for the path of the

Chart 1  
Firms under high financial pressure (a)

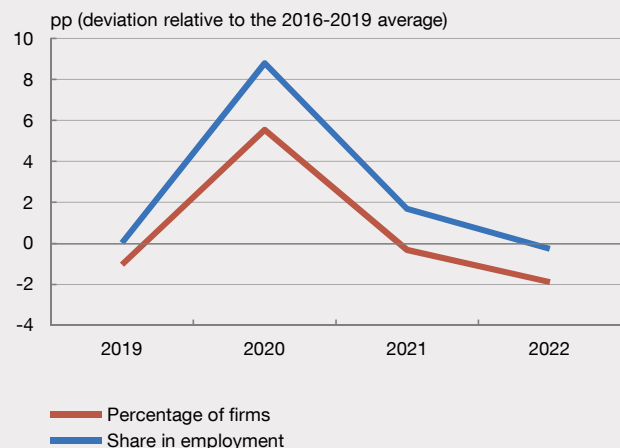


Chart 2  
Average interest rates of the stock of non-financial corporations' debt (b)

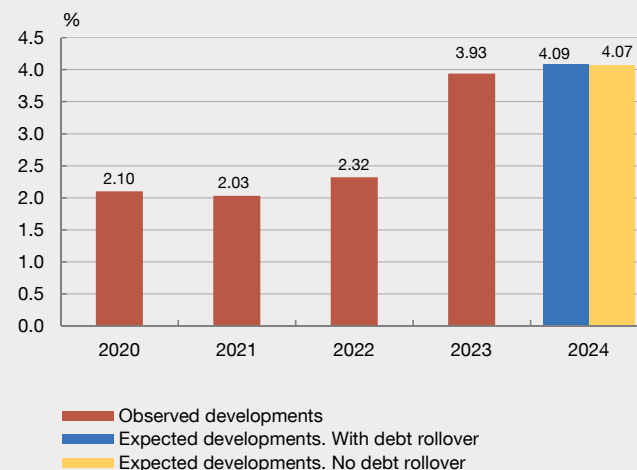


Chart 3  
Expected developments in the percentage of firms under high financial pressure (a) (c) (d)

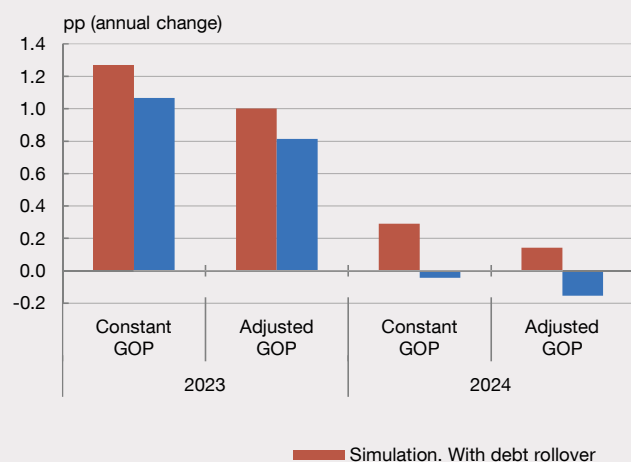
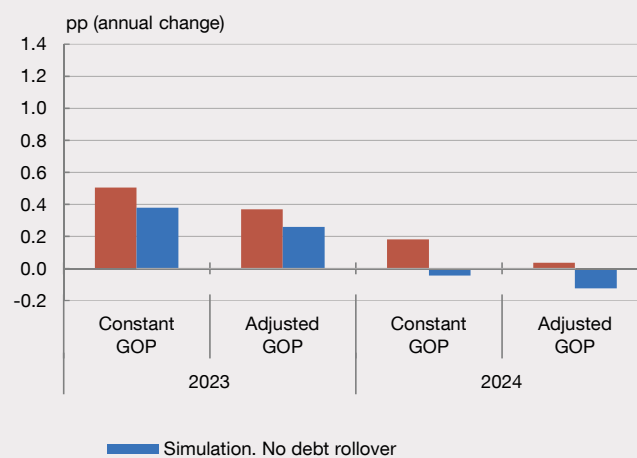


Chart 4  
Expected developments in the share in employment of firms under high financial pressure (a) (c) (d)



SOURCE: Banco de España.



- a A firm is considered to be under high financial pressure if its interest coverage ratio is below one. The interest coverage ratio is calculated as (GOP + financial revenue) / financial costs.
- b Weighted annual average of monthly interest rates.
- c Calculated drawing on a sub-sample of firms for which information is available in the CCR or, if such information is not available, on the basis of firms operating in the same province and sector (at NACE Rev. 2 class level) and of a similar size (based on the European Commission's classification), to which the average cost of financing of the group of comparable firms for which such information is available in the CCR is assigned. The financial costs of each firm for 2023 and 2024 are proxied drawing on the balances of interest-bearing debt at the start of each year and the expected path of interest rates. Two scenarios are considered: full debt rollover and no short-term debt rollover. Further, two alternative assumptions are made about firms' GOP: that it remains constant at its 2022 level or that it increases, for all firms, by 9% in 2023 and 4.5% in 2024.
- d Holding companies, head offices and dormant firms are excluded, as are firms with misreported data concerning employment, financial costs or interest-bearing debt.

3 Proxied drawing on derivative contracts linked to interbank rates. For 2023, CRR data to November 2023 are used.

## Box 2

**THE IMPACT OF INTEREST RATE HIKES ON FIRMS' FINANCIAL PRESSURE (cont'd)**

reference interbank rate, using the same procedure as in Box 1. In the case of non-bank debt (for which no information is available in the CCR), its cost is assumed to vary by the same amount as bank debt. For those firms not included in the CCR, the cost of their debt is calculated drawing on the data for similar firms for which such information does exist.<sup>4</sup>

Once the debt maturity structure has been defined and the associated interest rate projected, the interest expenses of each firm are calculated by multiplying its debt by the related cost.

Chart 2 shows the changes in the annual average interest rates of firms' outstanding debt up to 2023 and the projection for 2024, based on the foregoing assumptions, for the two rollover scenarios (although the differences between these are very small). According to these results, the annual average cost of debt increased by 162 bp in 2023, and will rise by around a further 14 bp in 2024.<sup>5</sup>

Chart 3 shows the annual change in the percentage of firms under high financial pressure drawing on the simulations conducted for all combinations of the assumptions described above. Under the assumption that firms roll over all their debt (bank and non-bank alike) upon maturity and that their GOP remains constant, the proportion of those under high financial pressure rises by 1.3 percentage points (pp) in 2023 compared with 2022, to levels close to the 2016-2019 average. However, there would be hardly any change in the percentage of such firms in 2024 (increase of 29 bp) because monetary policy

should have almost fully passed through to financing costs in 2023, as described in Box 1 of this report.

The percentage of firms under high financial pressure increases slightly less in 2023 under the assumption that growth in GOP is uniform than if corporate earnings are assumed to remain constant (27 bp and 15 bp less in 2023 and 2024, respectively). If, in addition to assuming uniform growth in GOP, debt is not rolled over upon maturity, the percentage of firms under high financial pressure increases by 0.8 pp in 2023 with respect to 2022.

Lastly, Chart 4 shows changes in the share in employment of firms under high financial pressure. Although the pattern observed is similar to that of Chart 3, the impact in terms of employment is more subdued, suggesting that the firms affected have comparatively fewer workers. Specifically, under the most adverse scenario considered (all debt is rolled over and GOP remains constant), the share in employment of firms under high financial pressure rises by 0.5 pp in 2023 and 0.2 pp in 2024.

In sum, this box shows that the more adverse effects associated with higher interest expenses materialised in 2023 and were limited. In 2024 the degree of corporate vulnerability associated with the interest rate trajectory is expected to stabilise somewhat or improve, as monetary policy should have almost fully passed through to financing costs in 2023, based on the assumptions applied. Lastly, as regards the share in employment of the firms affected, the impact appears to be very reduced.

4 Specifically, considering similar firms operating in the same province and sector (at NACE Rev. 2 class level) and of a similar size (based on the European Commission's classification). This group of comparable firms enables an average cost of financing to be assigned to firms for which no information is available in the CCR. Further, holding companies, head offices and dormant firms are excluded, as are firms with misreported data concerning employment, financial costs or interest-bearing debt. Applying such filters means that the sample of firms used in this analysis is smaller than that used in Chart 1.

5 Under the no-rollover scenario, the average cost of firms' outstanding debt would increase in 2024, despite the lower reference interest rates, owing to the higher relative weight of medium-term fixed-rate loans.

## ANNEX 1

### DATABASES USED IN THE REPORT

#### Central Balance Sheet Data Office integrated database (CBI)

**Description:** The CBI provides unconsolidated economic and financial information on Spanish non-financial corporations. It draws on firms' annual accounts. The information is sourced, first, through firms' direct and voluntary collaboration with the Banco de España and, second, through mandatory company register filings.

**Institution:** Banco de España.

**Frequency:** Annual.

**Data type:** Quantitative.

**Sample size:** Around 800,000 firms.

**Update:** Preliminary information is published in November of the year after the reference year and the full information is published in June of the second year after the reference year.

**Further information:** <https://www.bde.es/wbe/en/publicaciones/informacion-estadistica/central-balances/central-de-balances--resultados-anuales-de-las-empresas-no-financieras-2022.html>

#### Central Balance Sheet Data Office Quarterly Survey (CBQ)

**Description:** Contains data from the unconsolidated balance sheets and income statements of non-financial corporations. Although the CBQ has a higher frequency than the CBI, it is biased towards larger firms and has low coverage of some sectors.

**Institution:** Banco de España.

**Frequency:** Quarterly.

**Data type:** Quantitative.

**Sample size:** Around 1,000 firms.

**Update:** Three months after the reference quarter.

**Further information:** <https://www.bde.es/wbe/en/noticias-eventos/actualidad-banco-espana/notas-banco-espana/los-resultados-de-la-muestra-anual-de-central-de-balances-confirman--la-evolucion-positiva-de-la-situacion-economica-de-las-empresas-no-financieras-en-2022.html>

#### Central Credit Register (CCR)

**Description:** A register of virtually all financial institutions' credit claims, guarantees and exposures in general vis-à-vis their customers, allowing transaction-level monitoring of credit risk. It contains information on the natural or legal persons party to the transactions, along with details of the terms and conditions and associated guarantees.



**Institution:** Banco de España.

**Frequency:** Monthly.

**Data type:** Quantitative.

**Sample size:** Virtually all exposure transactions of the institutions operating in Spain.

**Update:** The month after the end of the reference month.

**Further information:** <https://www.bde.es/wbe/en/publicaciones/informes-memorias-anales/memoria-cir/>

### Financial Accounts of the Spanish Economy (FASE)

**Description:** These are part of the system of national accounts and provide information on the resident institutional sectors' financial positions and the transactions and other flows that explain the changes in those positions (revaluations and other changes), broken down by instrument type and by counterparty sector.

**Institution:** Banco de España.

**Frequency:** Quarterly.

**Data type:** Quantitative.

**Sample size:** Population.

**Publication:** Three months and ten days after the reference quarter.

**Further information:** <https://www.bde.es/webbe/en/estadisticas/temas/cuentas-financieras.html>

### Central Business Register (DIRCE)

**Description:** The DIRCE provides information on firms operating in Spain, broken down by basic variables such as legal form, economic activity, size and geographical location. The information published refers both to all active firms at a given moment in time and all new registrations, deregistrations and already registered firms in a given year.

**Institution:** National Statistics Institute (INE).

**Frequency:** Annual.

**Data type:** Quantitative.

**Sample size:** More than 3 million firms (mainly business entities and sole proprietors).

**Publication:** December (the time reference for the data is 1 January).

**Further information:** [https://www.ine.es/dyngs/INEbase/en/operacion.htm?c=Estadistica\\_C&cid=1254736160707&menu=ultiDatos&idp=1254735576550](https://www.ine.es/dyngs/INEbase/en/operacion.htm?c=Estadistica_C&cid=1254736160707&menu=ultiDatos&idp=1254735576550)

### Banco de España Business Activity Survey (EBAE)

**Description:** Survey on the recent course of Spanish non-financial corporations' business activity and their outlook for the short term, including aspects such as turnover, employment, investment, input and output prices, profit and debt.

**Institution:** Banco de España.

**Frequency:** Quarterly.

**Data type:** Qualitative.

**Sample size:** Around 6,000 firms.

**Publication:** The results are published at the end of the reference quarter itself.

**Further information:** <https://www.bde.es/wbe/en/areas-actuacion/central-balances/informes-productos-estadisticos/informes-nacionales/encuesta-ebae/>

## Bankruptcy Proceedings Statistics

**Description:** The statistics provide information on bankruptcy applications by non-financial corporations, sole proprietors and individuals without a business activity in Spain. The firms are broken down by variables such as sector of activity, geographical location (region), number of employees, turnover, age and legal form (S.R.L., S.A., etc.). There is also a breakdown by bankruptcy type (voluntary filing, involuntary or “subsequent” (*concurso consecutivo*)) and by procedure class (special for microfirms, ordinary, express / no bankruptcy estate).

**Institution:** INE (to 2020 Q4) and Association of Registrars (from 2021 Q1).

**Frequency:** Quarterly.

**Data type:** Quantitative.

**Sample size:** Population.

**Publication:** Two months after the reference quarter.

**Further information:** INE: [https://www.ine.es/dyngs/INEbase/en/operacion.htm?c=Estadistica\\_C&cid=1254736177018&menu=ultiDatos&idp=1254735576550](https://www.ine.es/dyngs/INEbase/en/operacion.htm?c=Estadistica_C&cid=1254736177018&menu=ultiDatos&idp=1254735576550)  
Association of Registrars: [https://www.registradores.org/actualidad/portal-estadistico-registral/estadisticas-concursales#portlet\\_com\\_liferay\\_journal\\_content\\_web\\_portlet\\_JournalContentPortlet\\_INSTANCE\\_92PKQIzgTNBS](https://www.registradores.org/actualidad/portal-estadistico-registral/estadisticas-concursales#portlet_com_liferay_journal_content_web_portlet_JournalContentPortlet_INSTANCE_92PKQIzgTNBS)

## Survey of Household Finances (EFF)

**Description:** A survey of households resident in Spain conducted since 2002 to provide detailed information on the households' income, assets, debt and expenditure. The EFF is an official survey undertaken by the Banco de España and included in the National Statistics Plan. This information complements the aggregated data in the Financial Accounts of the Spanish Economy and allows studies to be conducted on Spanish household investment and financing decisions and on their financial position. Such studies make for a better understanding of Spain's economy and the proper design of public policies. To ensure the representativeness of the study, the randomly selected sample includes respondents from all economic strata and benefits from the cooperation of the INE.

**Institution:** Banco de España.

**Frequency:** Biennial.

**Data type:** Quantitative.

**Sample size:** Around 6,000 households. There is a panel component, whereby households are included for up to five waves, and oversampling of wealthy households.

**Publication:** Two years after the reference year.

**Further information:** [https://app.bde.es/efs\\_www/home?lang=EN](https://app.bde.es/efs_www/home?lang=EN)

### Survey on the Access to Finance of Enterprises (SAFE)

**Description:** A pan-European survey of non-financial corporations, the majority of which are SMEs. It provides information on recent developments in the firms' financial situation, their need for and sources of external financing, and their perception regarding the availability of external financing.

**Institution:** European Central Bank and European Commission.

**Frequency:** Every six months. The survey is conducted once a year among a limited number of euro area countries (the ECB round), with a reference period of October-March. A more comprehensive survey is also conducted (the Common round), with reference period April-September and covering all EU Member States plus some neighbouring countries.

**Data type:** Mainly qualitative.

**Sample size:** Around 11,000 firms (between 1,300 and 1,500 Spanish firms, depending on the round).

**Publication:** Approximately three months after the last month of the reference period.

**Further information:** [https://www.ecb.europa.eu/stats/ecb\\_surveys/safe/html/index.en.html](https://www.ecb.europa.eu/stats/ecb_surveys/safe/html/index.en.html)

### Consumer Expectations Survey (CES)

**Description:** Online survey addressed to consumers aged 18-70 from six euro area countries (Belgium, Germany, Spain, France, Italy and the Netherlands). It collects information on consumers' perceptions and expectations and their economic and financial behaviour. It covers four major thematic areas: inflation, consumption and income, housing and financing and employment and economic growth.

**Institution:** European Central Bank.

**Frequency:** Mixed (monthly, quarterly and yearly).

**Data type:** Qualitative and quantitative.

**Sample size:** Around 14,000 respondents.

**Publication:** The main aggregates are published in the first 10-15 days of each month and the granular data are published quarterly.

**Further information:** [https://www.ecb.europa.eu/stats/ecb\\_surveys/consumer\\_exp\\_survey/html/index.en.html](https://www.ecb.europa.eu/stats/ecb_surveys/consumer_exp_survey/html/index.en.html)

### Bank Lending Survey (BLS)

**Description:** Survey addressed to a representative sample of euro area credit institutions providing regular information on credit standards, the terms and conditions for new loans, loan demand, the factors affecting loan supply and demand and the share of rejected

applications for loans. Banks are asked questions about lending to non-financial corporations and households separately, with the household segment broken down into loans for house purchase and consumer credit and other lending. Questions focus on changes in the last three months and expectations for the next three months.

**Institution:** Eurosystem (national central banks and the European Central Bank).

**Frequency:** Quarterly.

**Data type:** Qualitative.

**Sample size:** Around 150 euro area banks.

**Publication:** The month after the end of reference quarter: January, April, July and October.

**Further information:** [https://www.ecb.europa.eu/stats/ecb\\_surveys/bank\\_lending\\_survey/html/index.en.html](https://www.ecb.europa.eu/stats/ecb_surveys/bank_lending_survey/html/index.en.html)

### Mercantile Companies Statistics

**Description:** Information on firm entries and exits in Spain. The entries statistics provide both the number of businesses born and the share capital (subscribed and paid up), broken down by geographical location (province) and legal form (S.R.L., S.A., etc.). Exits are broken down by geographical location (province) and type of winding-up (voluntary, merger, etc.). Entries and exits are shown as a percentage of total active businesses, broken down by core business.

**Institution:** INE.

**Frequency:** Monthly.

**Data type:** Quantitative.

**Sample size:** Population.

**Publication:** Two months after the reference month.

**Further information:** [https://www.ine.es/dyngs/INEbase/en/operacion.htm?c=Estadistica\\_C&cid=1254736177026&idp=1254735576550&menu=ultiDatos](https://www.ine.es/dyngs/INEbase/en/operacion.htm?c=Estadistica_C&cid=1254736177026&idp=1254735576550&menu=ultiDatos)

### Interest Rate Statistics

**Description:** The statistics provide information on reference rates (EURIBOR, €STR and others) and the interest rates applied by monetary financial institutions (MFIs) to households and non-financial corporations (APR and NDER), in terms of outstanding amounts and new bank lending. They also include indicators for the interest rates negotiated on Spanish and international money and securities markets (government debt and other securities).

**Institution:** Banco de España.

**Frequency:** Monthly (reference rates, interest rates applied by MFIs, together with their corresponding outstanding amounts and new bank lending) and daily (money and securities market).

**Data type:** Quantitative.

**Sample size:** Population/representative sample.

**Publication:** Daily information: following day. Monthly information: the second day of each month, with a lag of one month for reference rates and around one month for other data.

**Further information:** <https://www.bde.es/webbe/en/estadisticas/temas/tipos-interes.html>

## Statistics on Sales, Jobs and Wages in Large Enterprises (VESGE)

**Description:** The statistics provide aggregate information on turnover, exports, imports, employment and wages at firms considered large firms for tax purposes that operate in Spain in the common tax regime territory. The data are drawn from the tax returns for VAT and withholdings on labour income.

**Institution:** Agencia Estatal de Administración Tributaria (AEAT).

**Frequency:** Monthly.

**Data type:** Quantitative.

**Sample size:** Around 30,000 firms.

**Publication:** Two months after the reference month.

**Further information:** [https://sede.agenciatributaria.gob.es/Sede/en\\_gb/datosabiertos/catalogo/hacienda/Informe\\_Ventas\\_Empleo\\_y\\_Salarios\\_en\\_las\\_Grandes\\_Empresas.shtml](https://sede.agenciatributaria.gob.es/Sede/en_gb/datosabiertos/catalogo/hacienda/Informe_Ventas_Empleo_y_Salarios_en_las_Grandes_Empresas.shtml)

## Statistics on Sales, Jobs and Wages in Large Enterprises and SMEs (VESGEP)

**Description:** The statistics compile data on firms that operate in Spain in the common tax regime territory, providing aggregate information on large firms' and SMEs' turnover, exports, procurement, imports, employment and wages, for 22 economic sectors. The data are drawn from the tax returns for VAT and withholdings on labour income.

**Institution:** AEAT.

**Frequency:** Quarterly.

**Data type:** Quantitative.

**Sample size:** Around 1 million firms.

**Publication:** The second month of the quarter following the reference quarter.

**Further information:** [https://sede.agenciatributaria.gob.es/Sede/en\\_gb/datosabiertos/catalogo/hacienda/Informe\\_Ventas\\_Empleo\\_y\\_Salarios\\_en\\_Grandes\\_Empresas\\_y\\_Pymes.shtml](https://sede.agenciatributaria.gob.es/Sede/en_gb/datosabiertos/catalogo/hacienda/Informe_Ventas_Empleo_y_Salarios_en_Grandes_Empresas_y_Pymes.shtml)

## Quarterly Statistics of the Observatorio de Márgenes Empresariales (Profit Margins Watchdog)

**Description:** The statistics provide aggregate data on non-financial corporations' turnover, exports, procurement, imports, wage bill and gross operating profit, with a broad sectoral breakdown (NACE Rev. 2 divisions). The data are drawn from tax returns for VAT, withholdings on labour income and corporate income tax.

**Institution:** AEAT.

**Frequency:** Quarterly.

**Data type:** Quantitative.

**Sample size:** Around 1 million firms.

**Publication:** The second month of the quarter following the reference quarter.

**Further information:** [https://sede.agenciatributaria.gob.es/Sede/en\\_gb/estadisticas/observatorio-margenes-empresariales/observatorio-margenes-empresariales.html](https://sede.agenciatributaria.gob.es/Sede/en_gb/estadisticas/observatorio-margenes-empresariales/observatorio-margenes-empresariales.html)

## Liquidity and Financing Indicators

**Description:** The liquidity indicators provide data on the financial asset holdings of (i) non-financial corporations and (ii) households and non-profit institutions serving households in cash, deposits, credit institution securities and investment funds. The financing indicators provide data on these two sectors' liabilities, together with data for the general government, linked to lending by resident and non-resident credit institutions and to the issuance of debt on financial markets. The financing drawn down by households is broken down by final use (house purchase, consumer credit and other lending).

**Institution:** Banco de España.

**Frequency:** Monthly.

**Data type:** Quantitative.

**Sample size:** Population.

**Publication:** One month after the reference month.

**Further information:** <https://www.bde.es/webbe/en/estadisticas/temas/cuentas-financieras.html>

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