

REPORT ON THE FINANCIAL SITUATION OF HOUSEHOLDS AND FIRMS

First half of
2023

BANCO DE **ESPAÑA**
Eurosistema



<https://doi.org/10.53479/30699>

Report

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Editorial¹

In recent months, financing costs for households and firms have continued to increase across the different types of borrowing and instruments. These developments reflect the change in the European Central Bank's (ECB) monetary policy stance, which commenced at the end of 2021 and has, to date, entailed an increase of 400 basis points (bp) in the key ECB interest rates. This increase has immediately been transmitted to market reference interest rates. Meanwhile, the pass-through to the cost of new loans to households for house purchase is taking place more slowly than would be expected on the basis of historical regularities, whereas in the case of new loans to firms it is taking place at a similar pace to the past.

In parallel, the supply of bank credit appears to be tightening. This is indicated by the latest available surveys of lenders (banks) and borrowers (firms and households). According to banks, the contraction of the supply of credit is essentially explained by the increase in perceived risks associated with the deterioration in the macroeconomic outlook and by banks' lower risk tolerance. The greater difficulty in accessing credit appears to have affected, in particular, lower income households, smaller and younger firms and firms with greater financial vulnerabilities (see Box 1).

The lower demand for funds due to higher interest rates, along with the reduction in the supply of funds, has led to a significant fall in new financing raised by households and firms. These developments have been apparent since last summer. In the case of households, the decline has been more marked in the segment of loans for house purchase, while in that of firms, the contraction is more pronounced for larger loans and issues of fixed-income securities, transactions generally conducted by larger companies. The decline in new financing flows has also entailed a fall in the debt of these sectors. In the case of households, this has been intensified by an increase in repayments on outstanding mortgages, in particular variable-rate ones, whose cost has increased significantly in recent months.

The financial situation of households has improved, with a gradual recovery of the purchasing power they had lost since 2021 because of high inflation, although the adverse effect of higher interest rates on the disposable income of debtors has intensified. The recent recovery in purchasing power was essentially underpinned by the improvement in employment, the increase in nominal wages and lower consumer price inflation. Meanwhile, the average cost of outstanding debt rose by 65% between December 2021 and April 2023, with the impact concentrated among households with variable-rate loans, which represent around one third of all households. According to microdata-based simulations, lower income households are in a relatively worse position to deal with higher inflation and, in the case of indebted ones, greater debt servicing costs (see Box 2).

¹ The cut-off date for this report is 30 June 2023.

The downward trend in the household saving rate from the all-time highs it reached during the pandemic has come to an end. The recent rise in the saving rate appears to have been driven by the improvement in households' purchasing power and the contraction in consumption. In any case, the behaviour of the savings rate in recent years has been consistent with the accumulation of liquid assets by households. Since late 2022, against a background of rising interest rates, there has been a shift in these assets from cash and sight deposits to instruments with a higher expected return, such as Treasury bills, time deposits and investment funds.

Overall, households have strengthened their financial position since late 2022, although the most vulnerable segments appear to have seen a greater deterioration in their ability to repay debt and meet other expenses. Thus, 2022 Q4 data show an increase in gross wealth, in real terms, following the falls seen in previous quarters, thanks to inflation easing. Moreover, the household debt-to-disposable income ratio declined notably in 2022 on account of the buoyancy of nominal income and, also, although to a lesser extent, the reduction in outstanding debt. Thus, at the end of last year, this indicator stood at its lowest level since 2003. Notwithstanding this, households with variable-rate debts, and especially those with lower incomes, appear to have experienced greater difficulty servicing their debt and meeting other expenses.

In this setting, some signs are discernible of a deterioration in the credit quality of loans granted to households. Although non-performing loans continued to fall sharply, a rise has been observed since the end of 2022 in loans classified by banks as Stage 2 loans.² This increase affected loans for house purchase and, to a greater extent, consumer loans. By contrast, in the case of lending to sole proprietors, the falls in non-performing and Stage 2 loans continued.

The financial situation of firms has continued to improve, overall, although with some variability across sectors. According to the Central Balance Sheet Data Office Quarterly Survey, ordinary profit increased in 2023 Q1, driven by the growth in economic activity and, in some cases, by the recovery in margins on sales. As a result, firms' profitability stood above pre-pandemic levels in most sectors, although higher debt service costs appear to be curtailing profit growth already. In any event, it should be borne in mind that these results are based on a small sample of generally large firms. The qualitative information from surveys of firms shows that smaller companies' profits performed worse.

Firms' liquidity buffers have not changed significantly in recent months and stand above their 2019 levels. This conclusion is derived from firms' balance sheets and also from credit facility data available in the Banco de España's Central Credit Registry. Liquidity buffers built up through credit facilities are more important for larger firms than for smaller ones.

As in the case of households, debt-to-income ratios have also declined for firms in recent quarters, although the proportion of profits used for debt servicing has risen. The fall in the

² Loans are classified as non-performing either when they are in default, i.e. there are amounts more than 90 days past due, or else 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, without fulfilling the requirements for classification as non-performing. Generally, they include those with amounts more than 30 days past due.

debt ratio was driven by the improvement in profits and also by a decline in borrowed funds. Meanwhile, the rise in the debt burden, which has been moderate, although very widespread across sectors, is explained by the increase in the average cost of debt, as a result of the gradual pass-through of higher interest rates to the cost of liabilities.

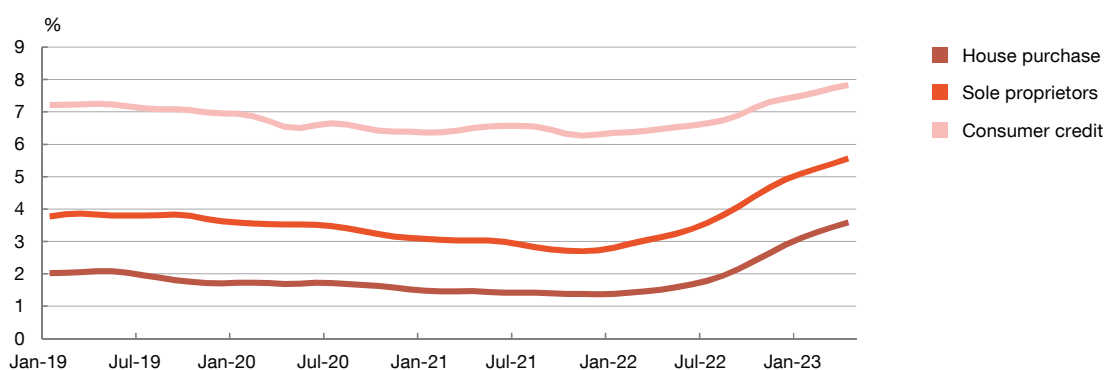
Against this background, the proportion of financially vulnerable firms appears to have continued to decline and no signs are discernible of a significant deterioration in firms' credit quality. Thus, firms' non-performing and Stage 2 loans have continued to decline in recent months. The sharpest decreases were in the sectors hardest hit by the pandemic, whose ability to pay has improved significantly since 2022, as economic activity has returned to normal following the lifting of the restrictions on movement. No deterioration in corporate bond credit ratings nor any rise in the number of corporate insolvencies has been observed.

1 Household borrowing costs have continued to rise ...

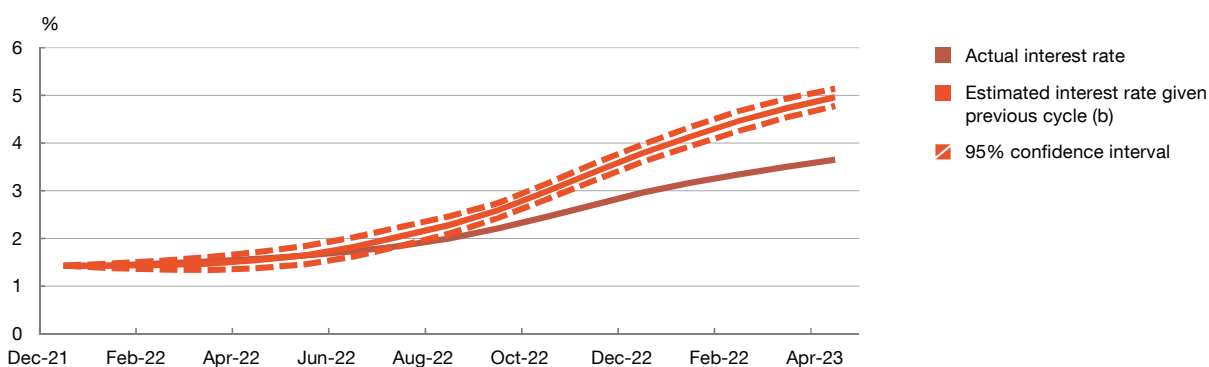
- Spanish credit institutions have been steadily passing through market rate rises to new loans to households since early 2022. This pass-through accelerated in 2022 H2 and affects all loan types (see Chart 1.a).
- In the case of loans for house purchase, which make up the bulk of new lending, rates are being passed through more slowly than was the case in past episodes of monetary tightening (see Chart 1.b).¹ Thus, in April 2023, the cost of this type of loan stood 1.3 percentage points (pp) below what would be expected based on historical regularities.

Chart 1

1.a Cost of new bank lending (a)



1.b Pass-through to interest rates for loans for house purchase compared with previous cycles (a)



SOURCE: Banco de España.

- a Interest rates are narrowly defined effective rates (NDEs), 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 were passed through similarly to the previous cycle, according to standard error-correction models estimated for the period between January 2003 and August 2007. A model is estimated for short-term (up to one year) and long-term (more than one year) interest rates and shown is the composite interest rate weighted by volume of new lending.



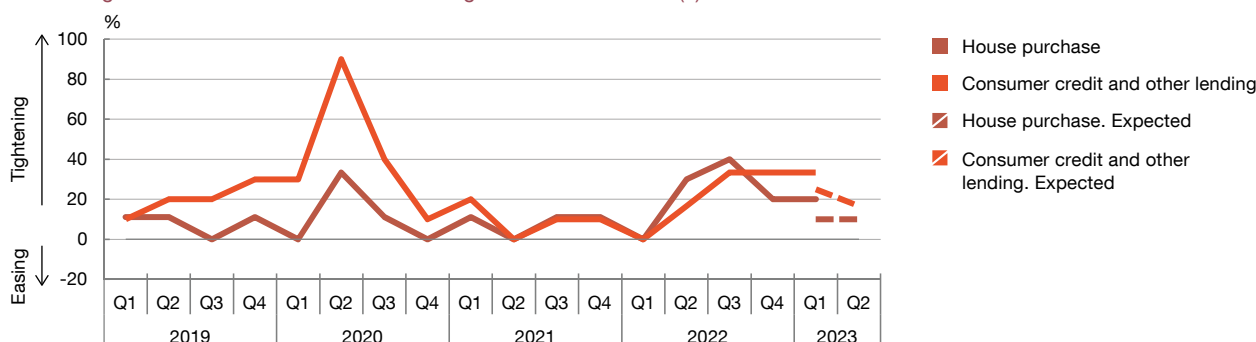
¹ For more details, see Sergio Mayordomo and Irene Roibás (2023). "La traslación de los tipos de interés de mercado a los tipos de interés bancarios". Documento Ocasional, 2312, Banco de España.

2 ... and credit availability is dropping

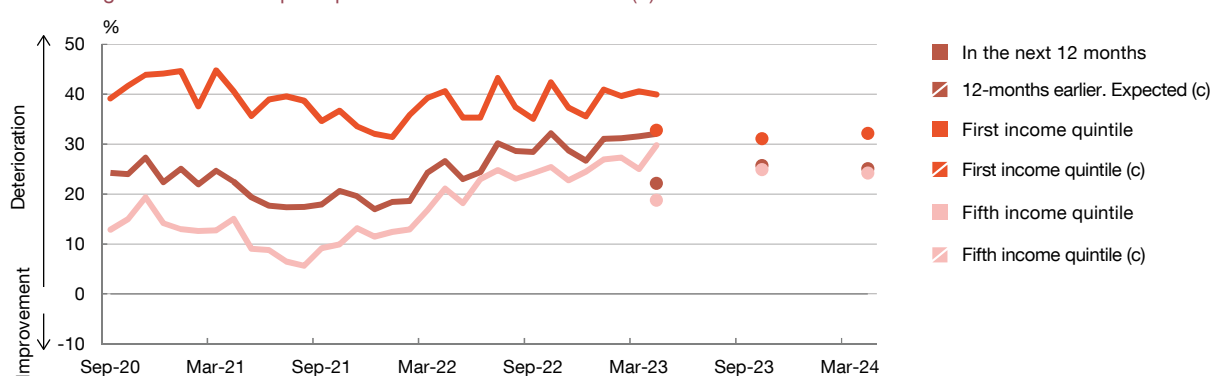
- The bank lending survey (BLS) shows that credit standards tightened in 2022 and continued to do so in 2023 Q1 (see Chart 2.a). The percentage of rejected applications also rose. Banks expect the loan supply to shrink again in 2023 Q2, although to a lesser extent this time.
- They attribute this to their reduced tolerance for risk, the downturn in the economic outlook and in the housing market, and the worsening of borrowers' creditworthiness.
- The European Central Bank's (ECB) Consumer Expectations Survey (CES) also shows that households believe access to credit has become harder since early 2022 (see Chart 2.b). They expect their access to credit will worsen further over the next 12 months, albeit more slowly.
- According to the CES, lower-income households perceive a more severe tightening in access to credit than those with higher income, although the gap between the two groups appears to have narrowed of late.

Chart 2

2.a Change in credit standards for bank lending to households. BLS (a)



2.b Change in households' perception of access to credit. CES (b)



SOURCES: ECB and Banco de España.

a Percentage of institutions reporting tightening less those reporting easing.

b Percentage of households having more difficulty accessing credit less those noting less difficulty. Data are available from September 2020.

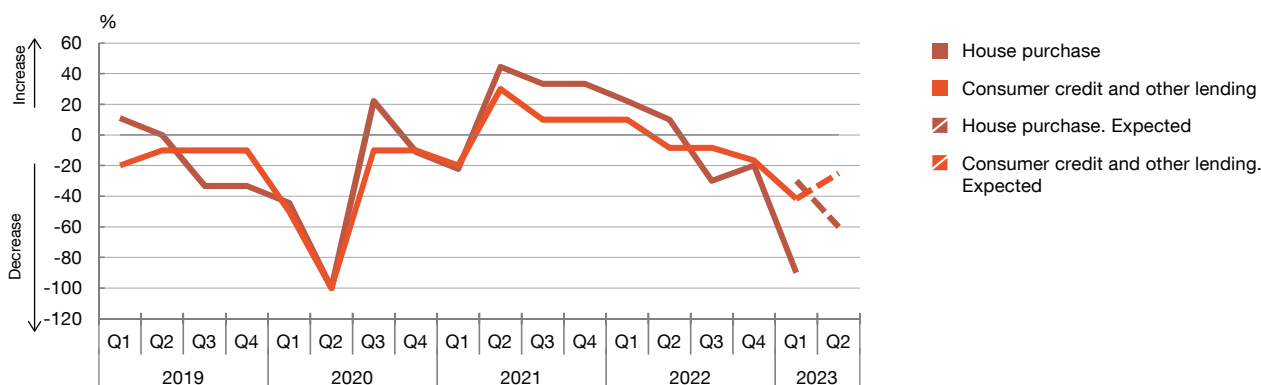
c Each dot represents households' response 12 months earlier regarding their expectations for credit access over the following 12 months.

3 The rising cost of borrowing has curtailed demand for loans to households in recent months

- The BLS shows a contraction in demand for loans to households since mid-2022, a trend that accelerated in 2023 Q1, with the sharpest drop coming in loan applications for house purchase (see Chart 3.a).
- According to the banks, this is mainly a consequence of rising interest rates, waning consumer confidence and, in the case of consumer credit and other lending, greater use being made of alternatives to fund purchases. Banks anticipate a further reduction in household credit applications in 2023 Q2.
- According to the CES, the proportion of households that have a high expectation of applying for an auto loan in the next twelve months dropped further in 2023 Q1, continuing the pattern in place since mid-2021.
- The percentage of households that have a high expectation of applying for a loan for house purchase in the next 12 months has remained stable in recent quarters, although it is below 2021 H2 levels. If these expectations are borne out, they would check the fall in lending for house purchase.

Chart 3

3.a Demand for loans to households. BLS (a)



SOURCE: Banco de España.

a Percentage of institutions reporting an increase less those reporting a decrease.

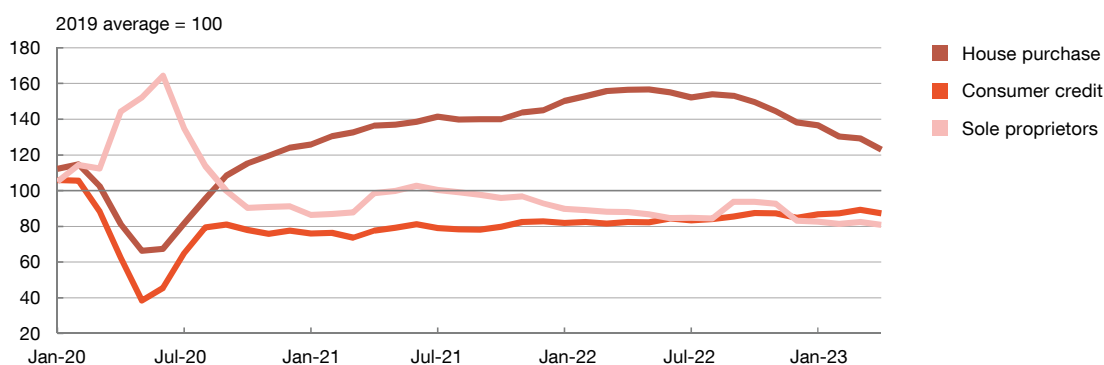


4 All of the above has contributed to a drop in new lending to households and a decline in the outstanding balance

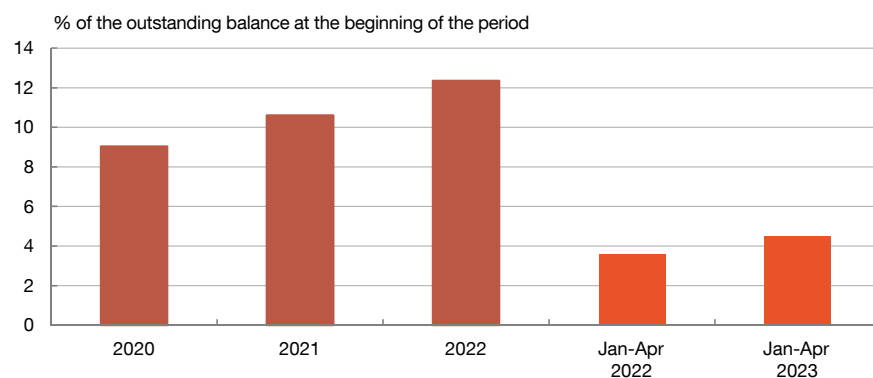
- Since summer 2022, new lending to households for house purchase has dropped sharply, although in April 2023 it still stood 23% higher than its 2019 level (see Chart 4.a). Lending to the self-employed fell more moderately, while consumer credit displayed greater stability. New lending amounts stood below their 2019 averages for both categories.²
- The increasing gap between the cost of outstanding variable-rate loans and the expected profitability of lower-risk investments has been conducive to growth in early repayments on mortgages (see Chart 4.b). Alongside a reduced rate of new lending, this has led to a fall in the outstanding amounts of bank loans.

Chart 4

4.a New lending (a)



4.b Repayments on loans for house purchase (b)



SOURCE: Banco de España.

a Seasonally adjusted three-month cumulative flows. Excludes renegotiations but includes creditor subrogation.

b Early repayments are calculated by subtracting net financing flows from new lending (which does not include renegotiations but does include creditor subrogation).



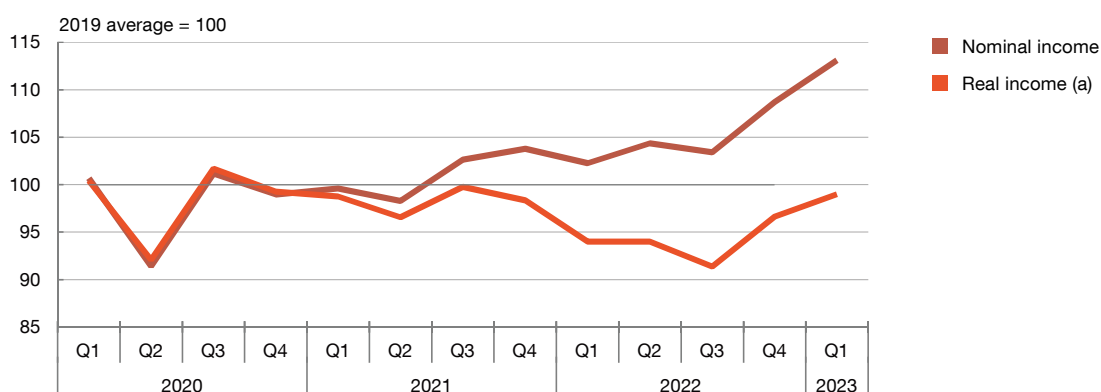
² New lending does not include renegotiations of existing loans with the same credit institution, but does include creditor subrogation.

5 There has been a progressive reduction in households' loss of purchasing power, but the adverse effect of interest rates rises on borrowers' income is amplified

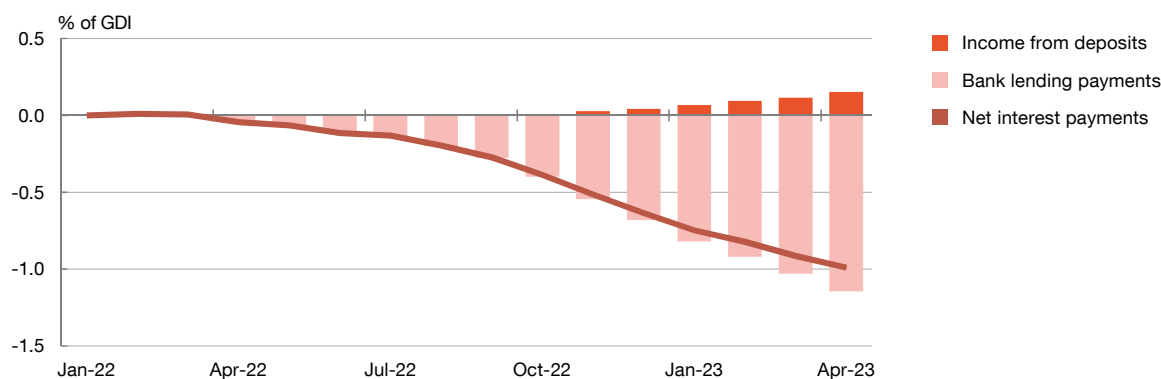
- Household nominal income has grown notably in 2022 Q4 and 2023 Q1, underpinned, to a large extent, by rising wages and robust economic activity. This increase and the more stable consumer prices seen since mid-2022 have allowed the recovery of a large part of the purchasing power lost since 2021 due to inflation (see Chart 5.a).
- The average cost of outstanding bank loans to households rose to 3.8% in April, compared with 2.3% in December 2021. This is an increase of 65% in interest payment per unit of debt. Net interest payments rose by 1.1% of the sector's annual gross disposable income (GDI) in that period. This uplift is borne by borrowers with variable-rate loans, who represent 29% of households and 51% of all borrowers (see Chart 5.b).
- Lower-income households were worse placed to contend with inflation and the rising cost of debt servicing (see Box 2).

Chart 5

5.a Quarterly household GDI (seasonally adjusted)



5.b Change in households' net interest payments since December 2021 (b)



SOURCE: Banco de España.

a Deflating nominal income based on the seasonally adjusted CPI.

b Approximated using bank lending rates for outstanding loan amounts and household deposits.

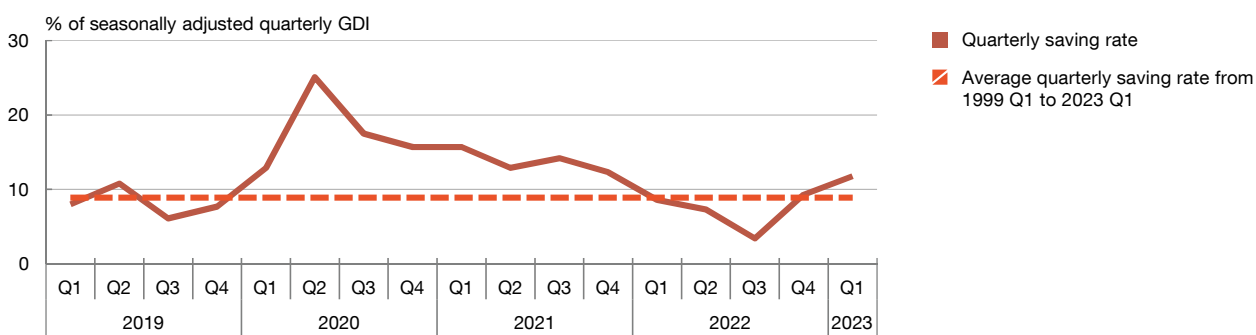


6 The household saving rate has increased again, standing at levels above its historical average in 2023 Q1. At the same time, households have rebalanced their liquid asset portfolio

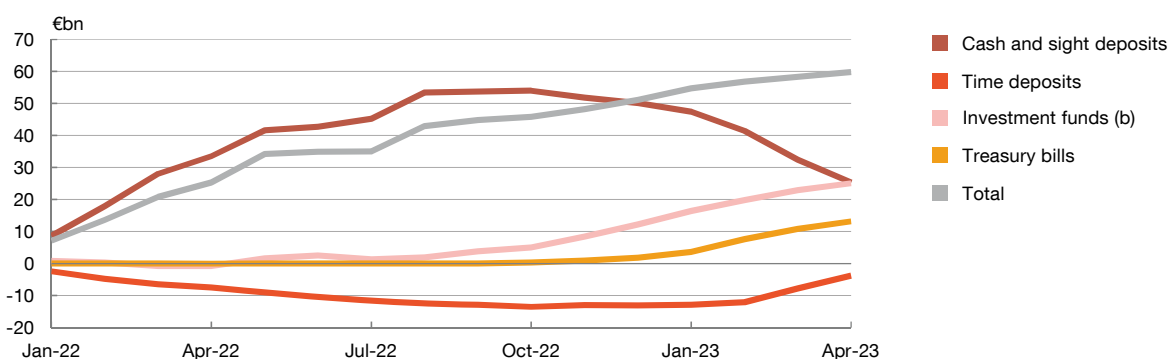
- The improvement in household purchasing power, along with shrinking consumption, have checked the downward trend seen in the household saving rate since the COVID-19 containment measures were lifted (see Chart 6.a).
- The fall in the saving rate in recent years is consistent with households' accumulation of liquid assets (see Chart 6.b). This portfolio has undergone rebalancing since late 2022, with a shift away from cash and sight deposits to more profitable instruments, such as Treasury bills, investment funds and time deposits.

Chart 6

6.a Saving rate of Spanish households (a)



6.b Net flows of liquid assets. Cumulative from January 2022 (a)



SOURCES: INE and Banco de España.

a Seasonally adjusted data.

b Net subscriptions (excluding valuation effects).

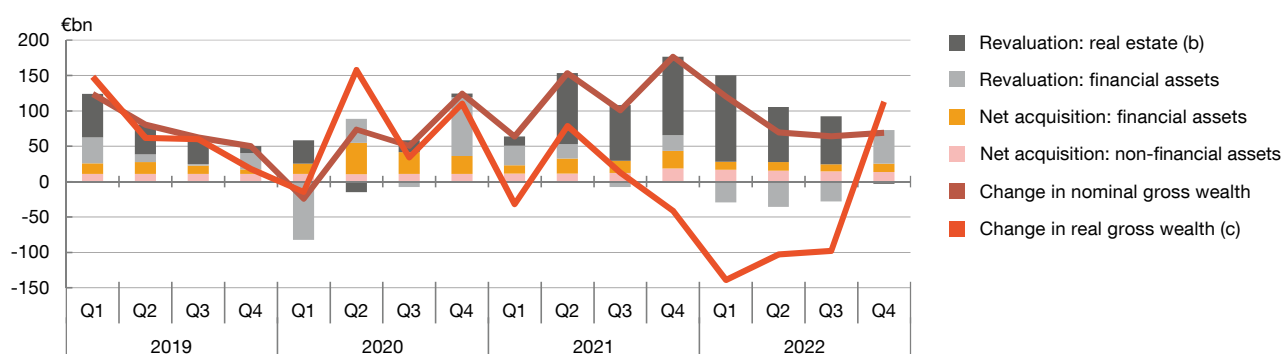


7 Households' wealth has grown and their debt ratio has dropped

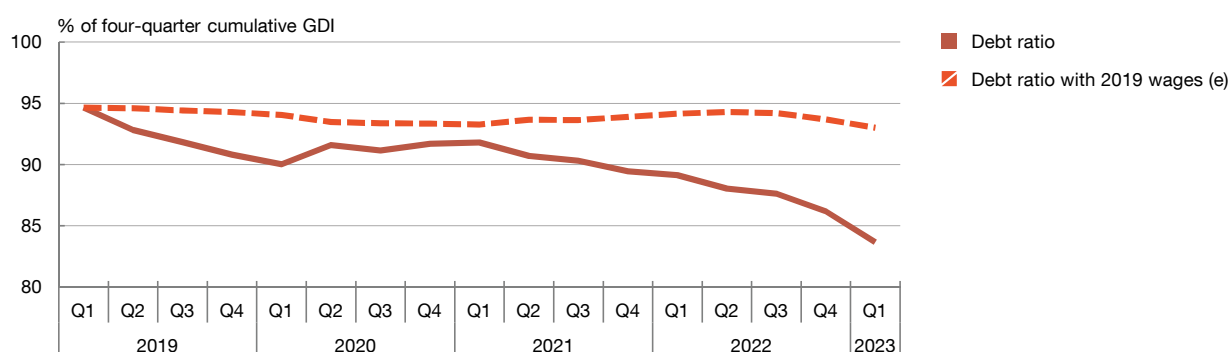
- The slowdown in housing prices meant that the real estate component ceased to underpin the increase in nominal wealth (see Chart 7.a). However, nominal wealth has continued to rise as a result of net asset acquisition and financial asset revaluation.
- In real terms, wealth recovered in late 2022, following falls in previous quarters, thanks to inflation easing.
- The household debt ratio has fallen significantly, standing in early 2023 at levels not seen since 2003. This decline is mainly down to the rise in nominal income (see Chart 7.b), driven by job creation and accelerating wages – linked, in part, to the surge in inflation.
- In spite of the drop in the debt ratio, households with variable-rate loans (29%, according to 2020 data) and particularly those in the lower income segment, appear to have lost some of their ability to service their debt or keep up with other expenses (see Box 2).

Chart 7

7.a Change in gross wealth by components (a)



7.b Debt ratio (d)



SOURCES: INE and Banco de España.

- a** Seasonally adjusted flows.
- b** Only includes residential real estate.
- c** Obtained by deflating CPI by the stock of quarterly nominal gross wealth.
- d** Seasonally adjusted outstanding amount.
- e** Calculated by dividing the outstanding balance by the four-quarter cumulative GDI in March 2019.

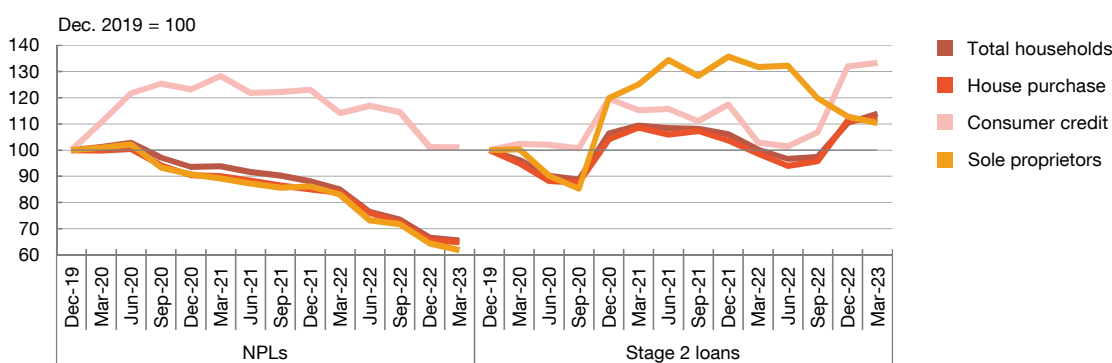


8 Non-performing loans to households continued to fall, while Stage 2 loans have risen

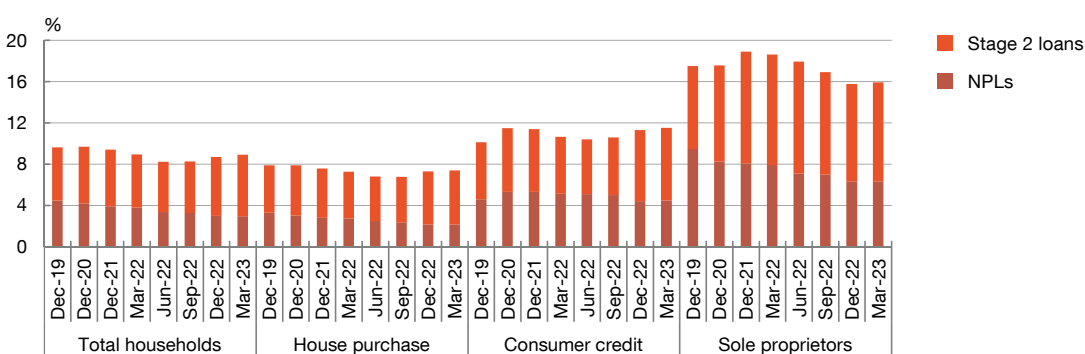
- Non-performing loans (NPLs) to households have continued to fall in recent quarters, with a year-on-year drop in March of 22.5% (see Chart 8.a). The drop is broad-based across categories (housing loans, consumer loans and loans to sole proprietors).
- However, Stage 2 loans have rebounded since late 2022, with growth of 18% year-on-year in March 2023. The increase affected both loans for house purchase and, to a greater extent, consumer loans. In contrast, lending to sole proprietors continued to drop.
- The NPL ratio stood at 3% in March 2023 for the household sector (a year-on-year fall of 0.8 pp) (see Chart 8.b). The ratios fell across all loan types. However, Stage 2 loans rose significantly: 0.8 pp – to 6% for all households – 0.7 pp in housing loans, 1.5 pp in consumer loans and 1.1 pp in loans to sole proprietors. In the case of loans to sole proprietors, the increase is the result of the fall in the outstanding balance.

Chart 8

8.a NPLs and Stage 2 loans to households (a)



8.b NPL and Stage 2 ratios for households



SOURCE: Banco de España.

a Loans are classified as non-performing either when they are in default, i.e. there are amounts more than 90 days past due, or else when there are indications that the loan is unlikely to be paid (e.g. the equity of a firm is negative). Stage 2 loans are those for which the credit risk has risen significantly since they were originated, but which do not meet the conditions for classification as non-performing. Generally, they include loans with amounts more than 30 days past due.

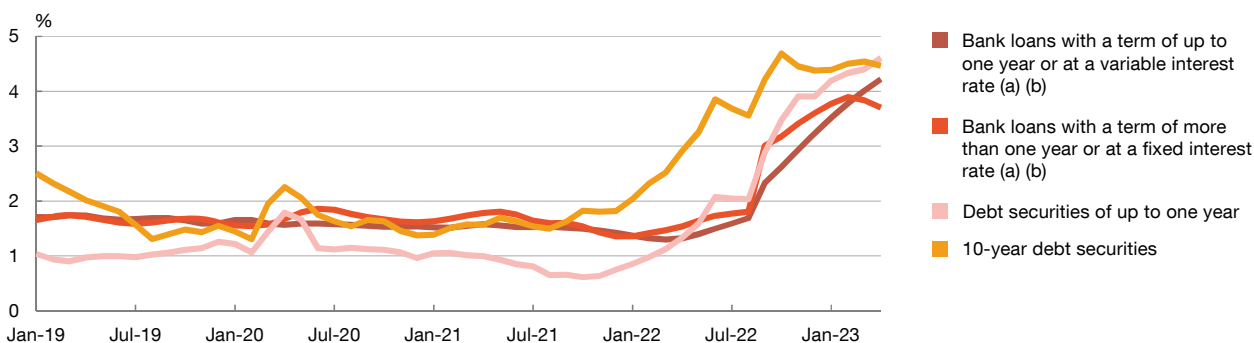


9 The cost of new financing has also continued to rise for firms ...

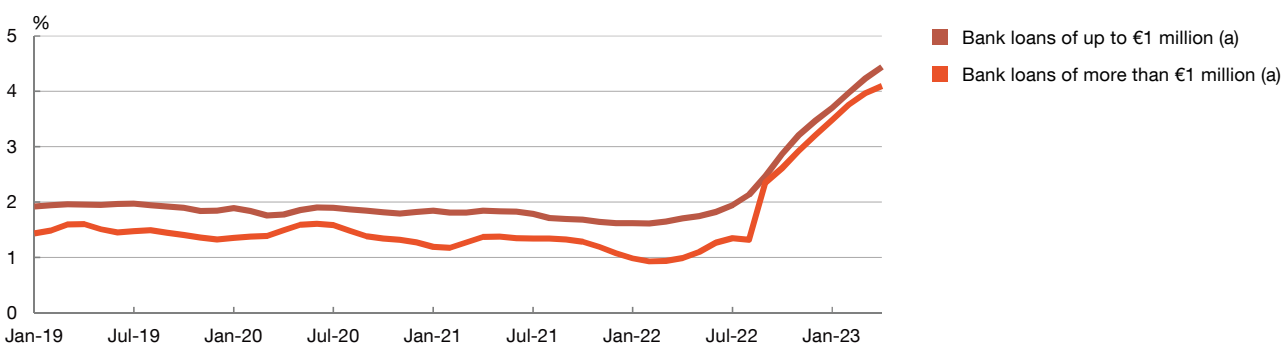
- The speed and intensity with which this increase has taken place has been uneven across maturities and instruments.
- Bond issuance costs increased earlier and more sharply than borrowing costs, in line with risk-free interest rate developments following the shift in monetary policy stance at end-2021 (see Chart 9.a).
- Long-term bond issuance costs stopped rising from October 2022, while short-term bonds continued to increase in 2023 and ultimately outstripped the former.
- Meanwhile, bank lending rates have risen more gradually across all maturities, in line with historical patterns. The cost of loans of more than €1 million, generally granted to large firms, increased more than that of smaller loans (see Chart 9.b).

Chart 9

9.a Cost of new financing to NFCs by maturity and instrument



9.b Cost of new loans to NFCs by loan size



SOURCES: Bloomberg Datalicense and Banco de España.

a Narrowly defined effective rates (NDER) adjusted seasonally and for the irregular component (small changes in the series with no recognisable pattern in terms of periodicity or trend).

b The term refers to the interest rate reset period.

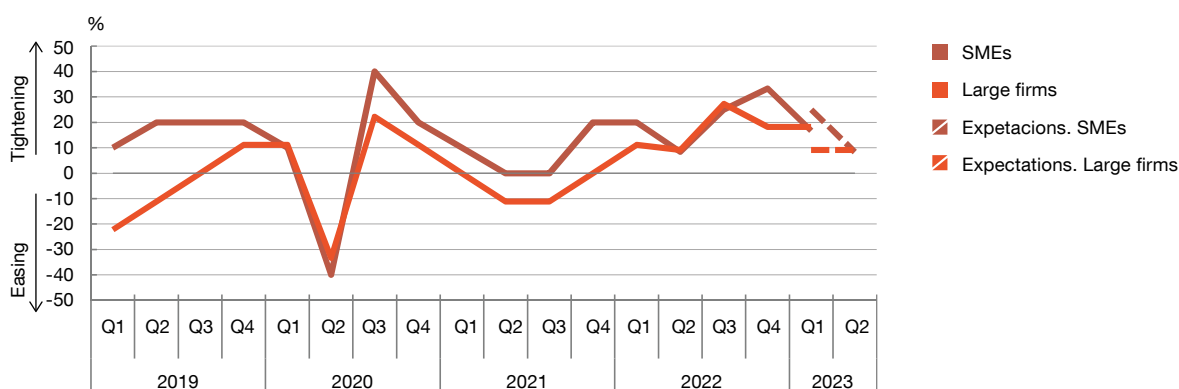


10 ... and their access to bank credit has deteriorated

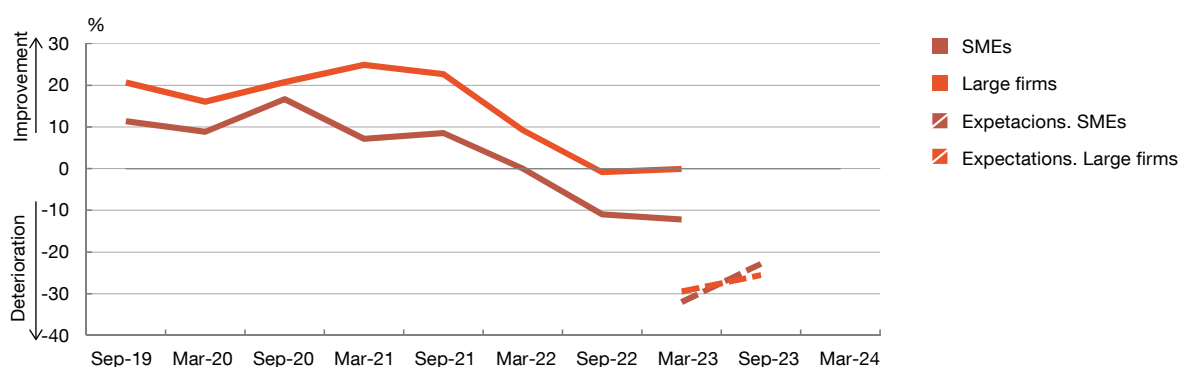
- According to the BLS, the tightening of credit standards continued in 2023 Q1 and was greater for SMEs in cumulative terms since end-2021. Banks expect this trend to continue in Q2, albeit at a slower pace (see Chart 10.a), mainly as a result of the worsening economic outlook.
- The euro area Survey on the Access to Finance of Enterprises (SAFE) also reveals that Spanish SMEs' perception of bank credit availability has worsened since early 2022 (see Chart 10.b). Conversely, access to financing appears to have remained largely unchanged for large enterprises between April 2022 and March 2023.
- According to the SAFE, smaller, younger and more vulnerable firms have had greater difficulties in obtaining financing (see Box 1).

Chart 10

10.a Change in credit standards for loans to NFCs. BLS (a)



10.b Change in firms' perceived bank loan availability. 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.

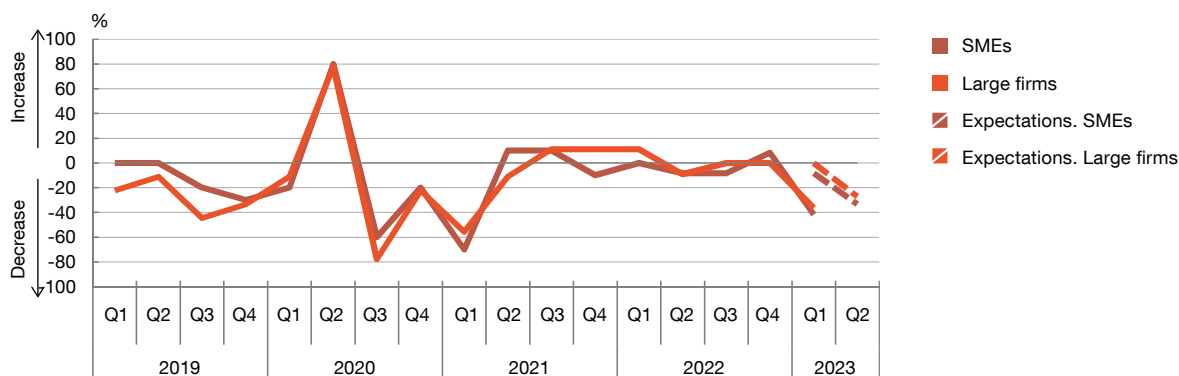


11 Firms' demand for bank credit appears to have declined

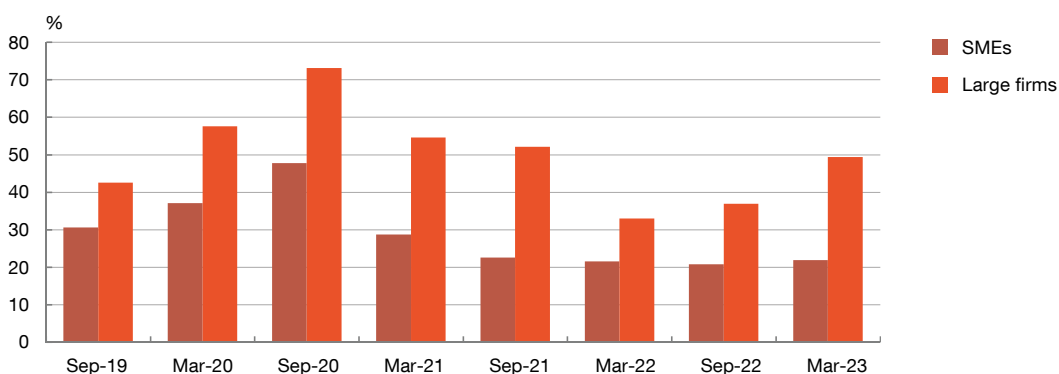
- In the BLS, banks reported a lower demand for credit across all firm sizes in 2023 Q1 (see Chart 11.a).
- This fall would mainly be due to higher interest rates and lower financing needs for fixed asset investment. Banks expect this trend to continue in 2023 Q2.
- However, the latest SAFE information – for the period October 2022 to March 2023 – does not show a decline in loan applications from SMEs or large enterprises (see Chart 11.b). The different responses of banks and firms could be explained, at least in part, by the different period to which they refer. In any event, the share of SMEs that applied for a bank loan between October 2022 and March 2023 remained low.

Chart 11

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



11.b 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.

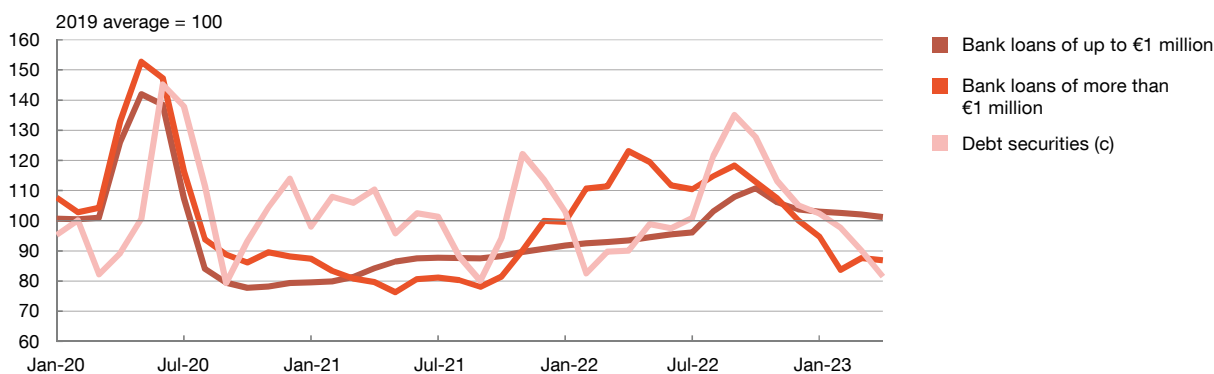


12 The decline in credit supply and demand has led to a significant decrease in new financing raised by firms

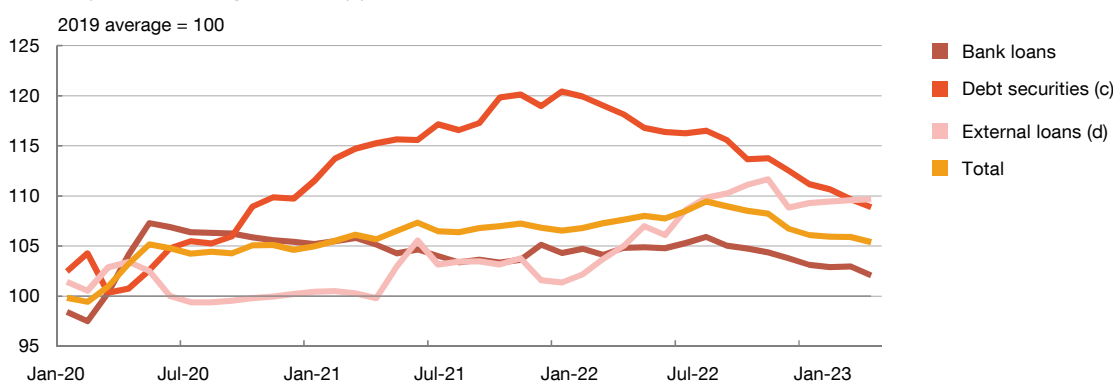
- The decline in the demand for credit, along with the greater difficulty in accessing it, has translated into a significant decrease in new financing raised by firms via bank loans and debt securities since September 2022 (see Chart 12.a).
- The slowdown in bank financing is sharper for loans of more than €1 million.
- The fall in funds raised through debt securities is due to lower issues with maturities of up to one year, while those with longer maturities increased slightly, reversing the trend observed at the start of the monetary tightening cycle, against a background of greater stability in financing costs in recent months.
- The decline in the flow of new transactions has led to a reduction in firms' outstanding debt balance. However, this balance remained above pre-pandemic levels (see Chart 12.b).

Chart 12

12.a New financing raised by NFCs (a)



12.b Adjusted financing balances (b)



SOURCE: Banco de España.

- Three-month cumulative seasonally adjusted flows. Due to the lack of available data on renegotiations by loan amount, the figures include renegotiations of previously arranged loans.
- The adjusted balance is calculated by accumulating seasonally adjusted financing flows starting from the outstanding balance at December 2018, with the net flow calculated as the difference between new loans and repayments made.
- Including issues by resident and non-resident financial subsidiaries of NFCs in Spain.
- Excluding net issues of debt securities by non-resident subsidiaries of NFCs in Spain.

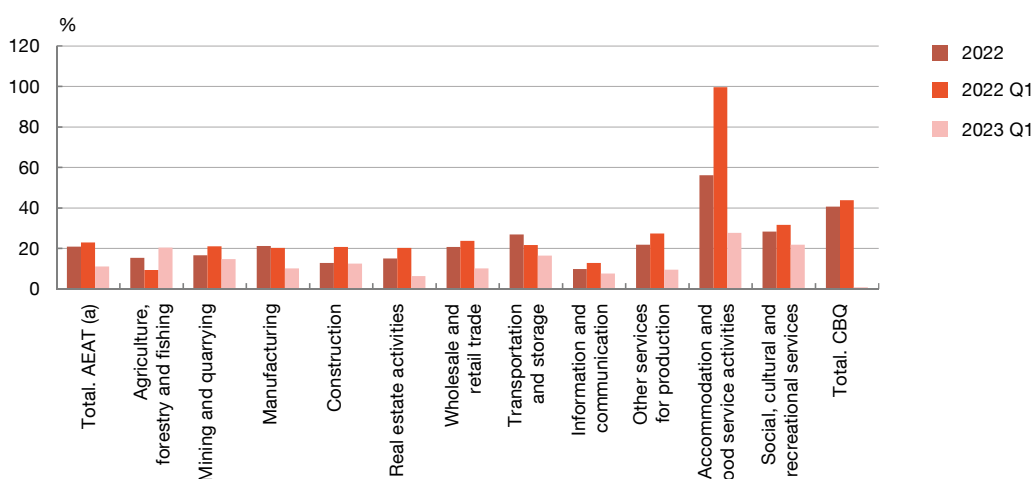


13 Non-financial corporations' (NFCs) turnover continued to increase rapidly in 2023 Q1

- According to the Spanish Tax Revenue Service (AEAT, by its Spanish acronym),³ the nominal value of sales increased by 11% in 2023 Q1. This growth was somewhat more moderate than that recorded in both the same period of 2022 and the year as a whole (22.9% and 20.8%, respectively). Sales increased across all sectors, albeit in almost all cases somewhat less so than a year earlier (see Chart 13.a).
- The Central Balance Sheet Data Office Quarterly Survey (CBQ)⁴ points to much more subdued sales growth between January and March (of only 0.7%). However, this figure is strongly influenced by the performance of a number of large energy sector firms, a sector of activity not included in AEAT data. The median sales figure, which better reflects developments at most firms, recorded a year-on-year increase of 6.2%.
- Other sectors with high CBQ coverage saw increases in sales ranging from 4% to 7%.
- Qualitative information from the Banco de España Business Activity Survey (EBAE, by its Spanish acronym) points to greater turnover buoyancy in 2023 Q2.

Chart 13

13.a Sales. Spanish NFCs. Year-on-year rates of change



SOURCES: AEAT and Banco de España.

a Excludes the energy, education, health, public administration and financial and insurance activities sectors.



³ The AEAT has data on just over one million firms. See statistics on sales, employment and wages at large firms and SMEs at https://sede.agenciatributaria.gob.es/Sede/datosabiertos/catalogo/hacienda/Informe_Ventas_Empleo_y_Salarios_en_Grandes_Empresas_y_Pymes.shtml.

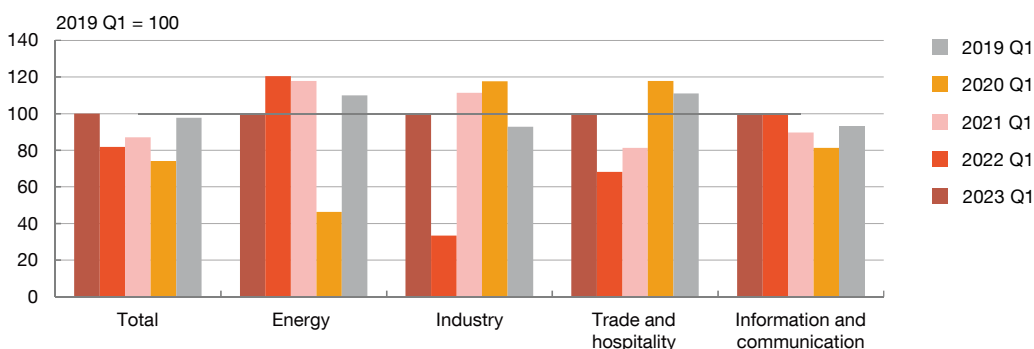
⁴ The CBQ contains information on the 916 (mainly large) firms that had reported their 2023 Q1 data by 15 June. The sample represents 12.1% of the gross value added (GVA) of the entire NFC sector.

14 Average margins on sales appear to have picked up in 2023 Q1, albeit unevenly across sectors

- According to the CBQ, the average margin on sales, calculated as the ratio of gross operating profit (GOP)⁵ to net turnover, rose in 2023 Q1 with respect to the same period of 2022, reversing the fall of a year earlier (see Chart 14.a).
- By sector there was considerable heterogeneity. The energy sector saw the greatest increase, which largely offset the sharp fall of a year earlier, largely due to the performance of the sub-sector of free-market electricity and natural gas suppliers. Many of these companies were negatively affected in 2022 by the increase in energy costs, as they could not fully pass it on to their customers due to the existence of contracts with fixed prices in the short term. Their margins recovered as they updated their selling prices and their costs decreased.
- In the information and communication sector, the average margin on sales increased, putting an end to the downward trend of recent years. Conversely, in industry it declined, driven by the oil refining sub-sector. Excluding it, margins increased, after the fall recorded a year earlier, reflecting the difficulties faced by many firms in this sector in passing on the increase in their costs to customers. Lastly, in the trade and hospitality sector, margins fell slightly following the rise in 2022.

Chart 14

14.a Margin on sales. Breakdown by sector. CBQ (a)



SOURCE: Banco de España.

a Defined as $GOP / \text{Net turnover}$. Calculations based on quarterly flow.



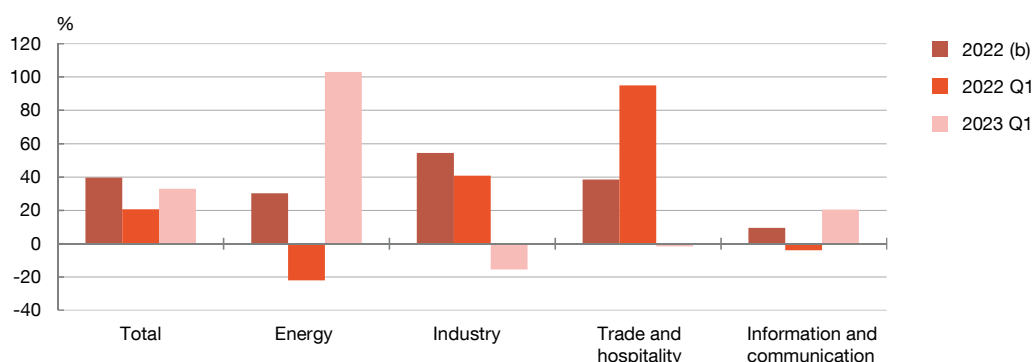
⁵ GOP is obtained by subtracting input and personnel costs from output.

15 Against this backdrop, firms' operating surplus continued to grow, although with significant sectoral heterogeneity

- According to the CBQ, GOP grew at an annual average rate of 32.8% in 2023 Q1, up from 20.4% a year earlier (see Chart 15.a).
- However, the sectoral breakdown is highly uneven. GOP grew sharply in the information and communication sector (20.3%) and, above all, in the energy sector (103%). The sharp rise recorded by energy firms was driven by the positive performance of sales margins, discussed in the previous page.
- Conversely, GOP fell by 1.7% in the trade and hospitality sector and to a greater extent (by 15.6%) in the industrial sector, following the sharp rises of a year earlier, prompted by the expansionary behaviour of the oil refining sub-sector in 2022. GOP decreases between January and March 2023 have been concentrated precisely in this sub-sector, together with the chemical industry; meanwhile, the other industrial sub-sectors have seen increases.
- In any event, it should be borne in mind that these results are based on the CBQ sample, which comprises a small number of generally large firms. The qualitative information from the SAFE shows smaller firms' profits performed worse.

Chart 15

15.a GOP. Year-on-year rate of change. CBQ (a)



SOURCE: Banco de España.

- a** GOP is defined as operating income less operating expenses and personnel costs.
b Calculated as the weighted average of quarterly data.

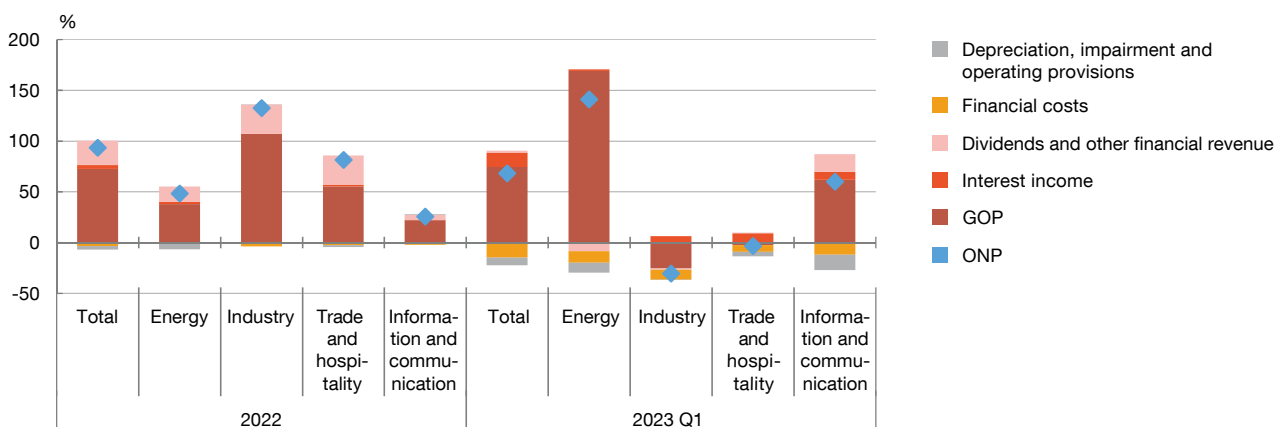


16 However, the higher average cost of debt is beginning to dampen growth in profit after interest

- According to the CBQ, the ratio approximating the average cost of financial debt rose to 2.3% in 2023 Q1, up 0.8 pp on a year earlier. The sectoral breakdown shows broad-based increases of between 0.4 pp and 1.4 pp.
- In most sectors, the rise in the average cost of outstanding debt has contributed to curbing the growth in profit after interest, which is approximated by ordinary net profit (ONP).⁶ Specifically, in 2022 net interest expenses (expenses less income) had barely any impact on growth in ONP, whereas in 2023 Q1 they curbed year-on-year ONP growth by between 3.3 pp and 9.9 pp, depending on the sector (see Chart 16.a).
- The depreciation, impairment and operating provisions item also tempered ONP growth in most sectors. Conversely, dividends received and other financial revenue made a positive contribution.
- As a result, the CBQ data show ONP growth of 68.1% in 2023 Q1. The sectoral breakdown reveals heterogeneity, with ONP rising in information and communication (59.7%) and energy (140.8%), but falling in industry (30.8%) and in trade and hospitality (3.7%). In industry, the contraction in ONP was concentrated in the sub-sectors of oil refining, chemicals and computer and electronic products.

Chart 16

16.a Year-on-year ONP growth (a). Contribution by components. CBQ



SOURCE: Banco de España.

a ONP is GOP plus net financial revenue less net depreciation, impairment and operating provisions.



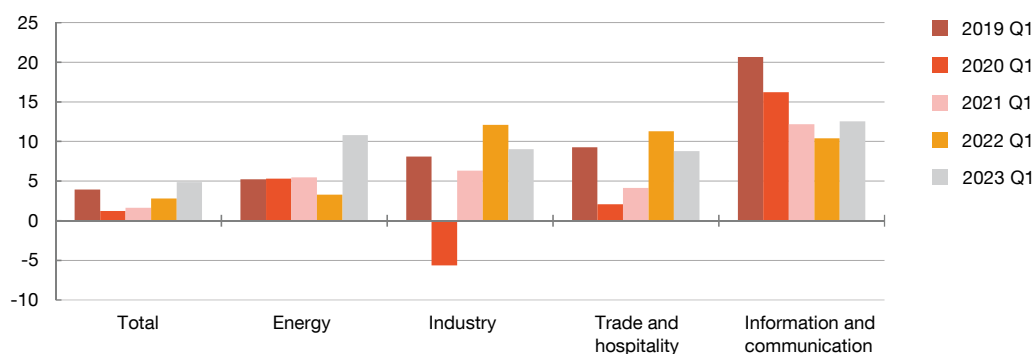
⁶ ONP is calculated as GOP plus financial revenue (primarily from interest and dividends received), less financial costs (mainly interest expenses) and less depreciation and operating provisions.

17 Higher ordinary profit translated into corporate profitability gains

- On CBQ data, in 2023 Q1 return on equity (ROE)⁷ stood at 4.8%, up by 2 pp on the same quarter in 2022 and slightly above pre-pandemic levels (see Chart 17.a).
- The sectoral breakdown reveals uneven profitability developments. For instance, profitability was up in the energy and information and communication sectors, but down both in the trade and hospitality sector and in industry. With the exception of information and communication, the 2023 Q1 figures were above or very close to those of 2019 Q1.
- In 2023 Q1, median ROE – which captures the representative firm’s performance – was up even more sharply than average ROE, climbing by 2.6 pp on a year earlier to 8% and also outstripping the 6% recorded in 2019 Q1.

Chart 17

17.a Return on equity. CBQ (a)



SOURCE: Banco de España.

a Ratio defined as ONP / equity.



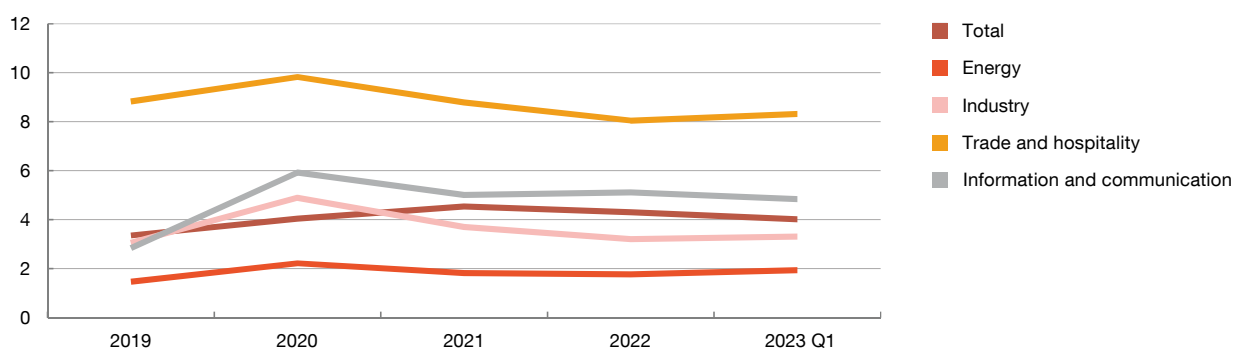
⁷ ROE is calculated as ONP / equity.

18 Firms' liquidity buffers have held stable over recent months and remain above 2019 levels

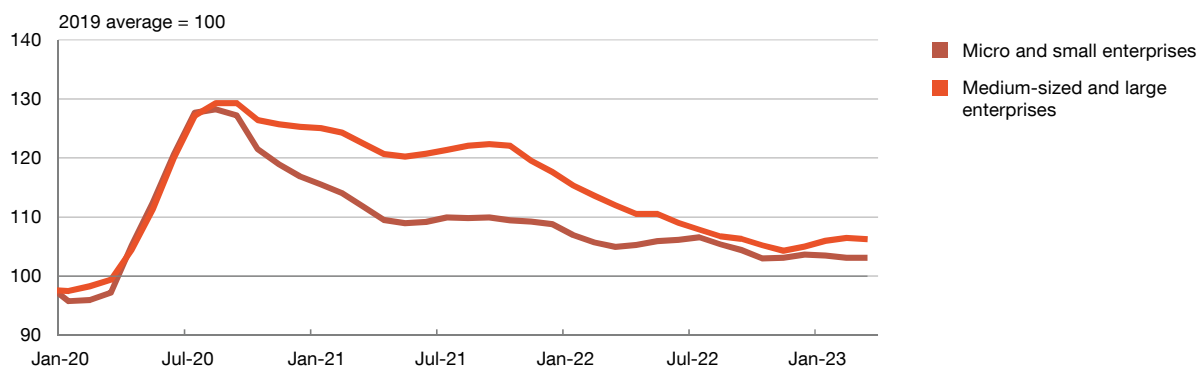
- According to the CBQ, firms' average liquidity ratio⁸ was virtually unchanged in 2023 Q1. The sectoral breakdown reveals some heterogeneity, with this ratio exceeding 2019 levels virtually across the board (see Chart 18.a).
- Also stable was the ratio of firms' undrawn credit to outstanding debt, which stood just above 2019 levels, as it did at the start of the year (see Chart 18.b). The proportion of firms with this type of liquidity buffer is higher among larger firms (26%) than among their smaller counterparts (19%).

Chart 18

18.a Liquidity ratio. Sectoral breakdown. CBQ (a)



18.b Availability of bank credit lines. Undrawn credit as a proportion of total bank debt (b)



SOURCE: Banco de España.

a Ratio defined as cash and cash equivalents / total assets.

b Median of the ratio of undrawn credit to total drawn and undrawn credit for different firm sizes. This ratio is obtained for the sub-sample of firms with undrawn credit based on the monthly information drawn from the Banco de España's central credit register (CCR). Firms are classified by size based on the information available in the Banco de España's business register (DIBE). The three-month moving average is shown to smooth the series, with normalisation to the 2019 average.



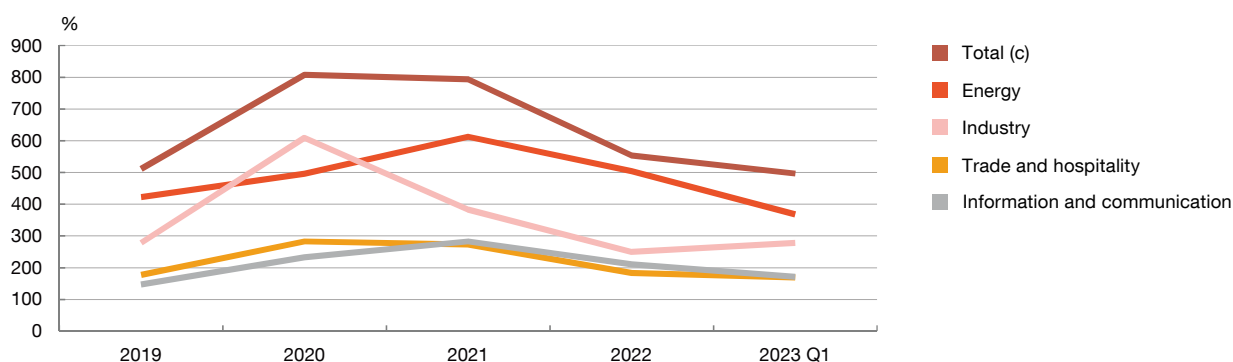
⁸ The liquidity ratio is calculated as cash and cash equivalents / total assets.

19 Firms' debt-to-income ratio declined further, although their debt burden has risen slightly

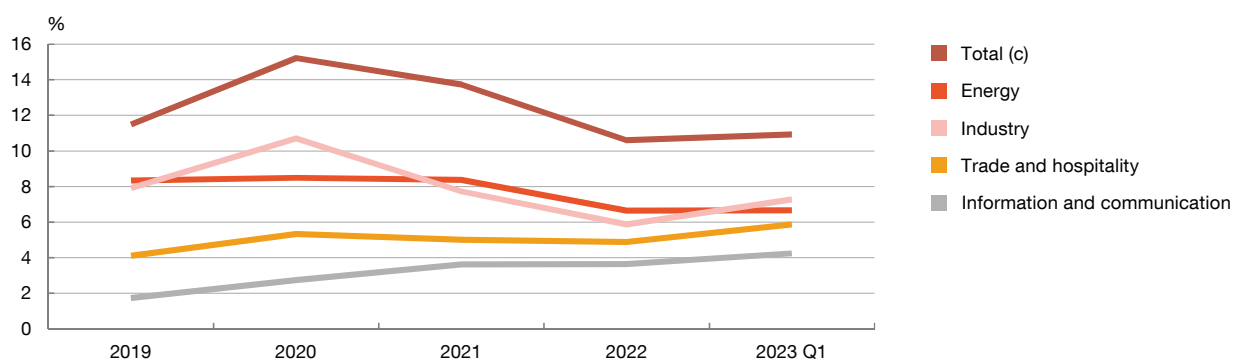
- In the period January-March 2023, the average ratio of debt to ordinary profit (GOP plus financial revenue) of CBQ firms declined further, continuing the trend of recent years. This is consistent with the more aggregate national accounts data and was driven by both improved profits and lower debt (see Chart 19.a).
- The sectoral breakdown shows declines across all sectors of activity, with the exception of industry where there was a moderate increase.
- Conversely, the average debt burden ratio (the ratio of interest expenses to ordinary profit) climbed slightly in 2023 Q1, reversing the downward trend of previous years (see Chart 19.b). This owed to higher financial costs linked to the increase in the average cost of debt, which slightly outpaced the growth in ordinary profit. According to the sectoral breakdown, this ratio rose moderately across all sectors.

Chart 19

19.a Debt ratio. Sectoral breakdown. CBQ (a) (b)



19.b Interest burden. Sectoral breakdown. CBQ (b) (d)



SOURCE: Banco de España.

a Ratio defined as interest-bearing borrowing / (GOP + financial revenue).

b The revenue and costs included in these ratios are calculated based on four-quarter cumulative amounts.

c Includes, in addition to the sectors shown, transportation and storage, activities with limited representation in the sample (e.g. construction) and other services, which include holding companies (which have higher debt and financial burden ratios, leading to the total figure being higher than the sum of the other sectors shown).

d Ratio defined as interest on borrowed funds / (GOP + financial revenue).

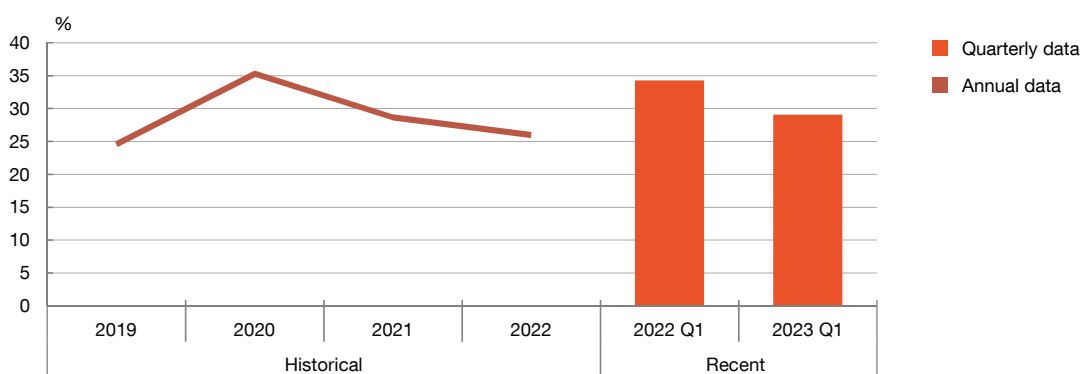


20 Against this background, in 2023 Q1 the percentage of financially vulnerable firms declined, returning to pre-pandemic levels

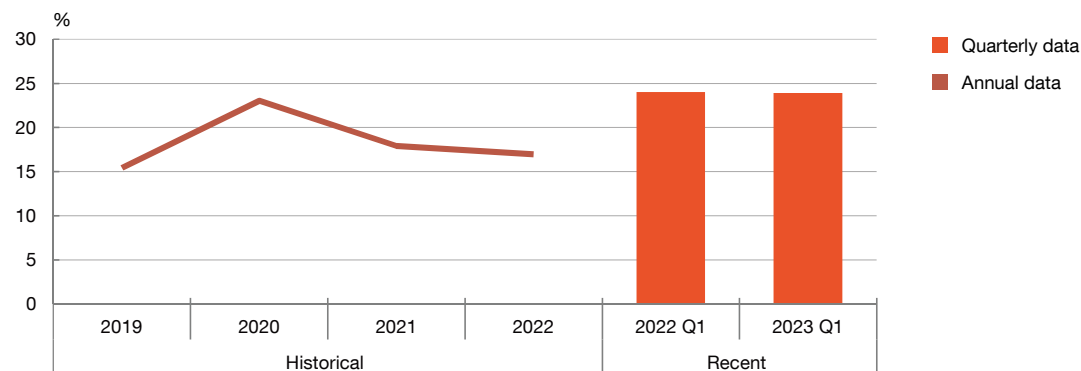
- In 2023 Q1, the percentage of CBQ firms with negative ONP declined to 29%, well below the 34.3% of a year earlier (see Chart 20.a).
- The percentage of highly-indebted firms – those with a net debt-to-earnings ratio higher than 10 or that are loss-making – also declined in 2023 Q1, albeit very slightly, down by 0.1 pp on a year earlier (to 23.9%) (see Chart 20.b).

Chart 20

20.a Percentage of firms with negative ONP. CBQ



20.b Percentage of highly-indebted firms. CBQ (a)



SOURCE: Banco de España.

a Net financial debt is defined as interest-bearing borrowing less cash and cash equivalents. Highly-indebted firms are those with a ratio of net financial debt / (GOP + financial revenue) higher than 10, or with positive net financial debt and zero or negative profits.

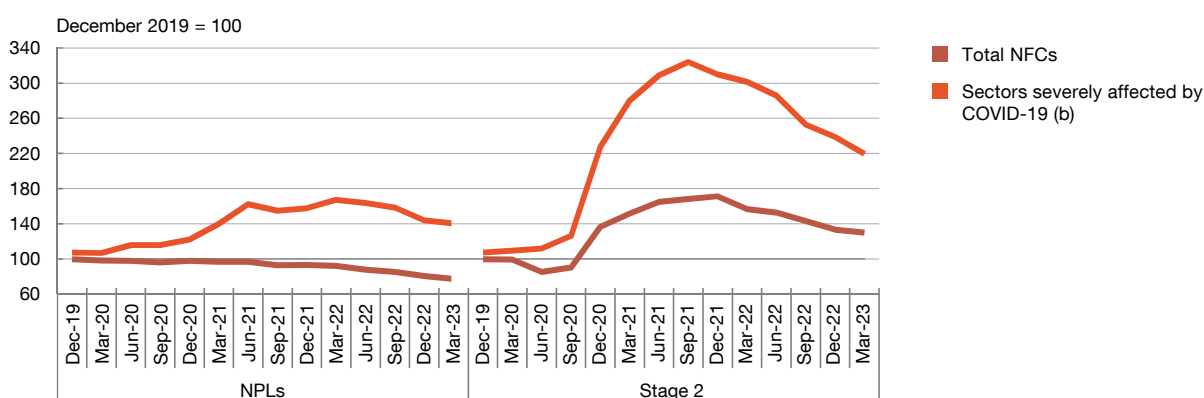


21 Firms' credit quality shows no signs of deterioration

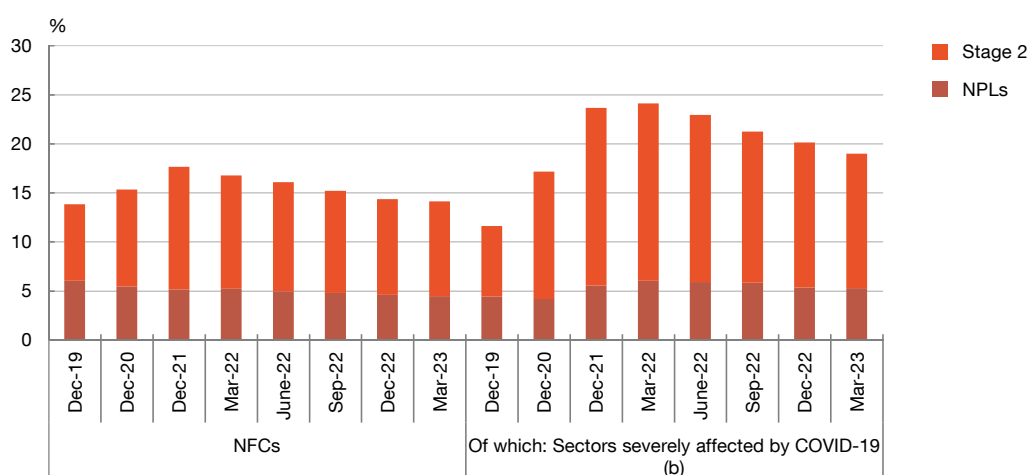
- Non-performing loans (NPLs) to NFCs declined further, falling by 14.9% year-on-year in March, 10 pp more than a year earlier (see Chart 21.a). The sharpest decreases came in the sectors hardest hit by the pandemic (16.9%), whose ability to pay improved as economic activity bounced back once the restrictions on movement were lifted.
- The significant reduction in Stage 2 loans also continued, with a drop of 17.1% in March 2023. The sectors most affected by the pandemic recorded the largest declines (28.3%).
- As compared with a year earlier, in March 2023 the NPL ratio was down by 0.7 pp (to 4.5%) and the Stage 2 ratio by 1.9 pp (to 9.7%) (see Chart 21.b). This same pattern was repeated in the sectors hardest hit by the pandemic, where the NPL ratio fell to 5.3% and the Stage 2 ratio to 13.7%.

Chart 21

21.a NPLs and Stage 2 loans to NFCs (a)



21.b NPL and Stage 2 ratios for NFCs



SOURCE: Banco de España.

- a Loans are classified as non-performing either when they are in default, i.e. there are amounts more than 90 days past due, or else when there are indications that the loan is unlikely to be paid (e.g. the equity of a firm is negative). Stage 2 loans are those for which the credit risk has risen significantly since they were originated, but which do not meet the conditions for classification as non-performing. Generally, they include loans with amounts more than 30 days past due.
- b Lending to the hardest-hit sectors is proxied by that to the sectors with a fall in turnover of more than 15% in 2020, which can be identified in the FI-130 regulatory return. In particular, the most affected sectors include hospitality, manufacture of refined petroleum products, social services and recreation, transportation and storage and manufacture of transport equipment.

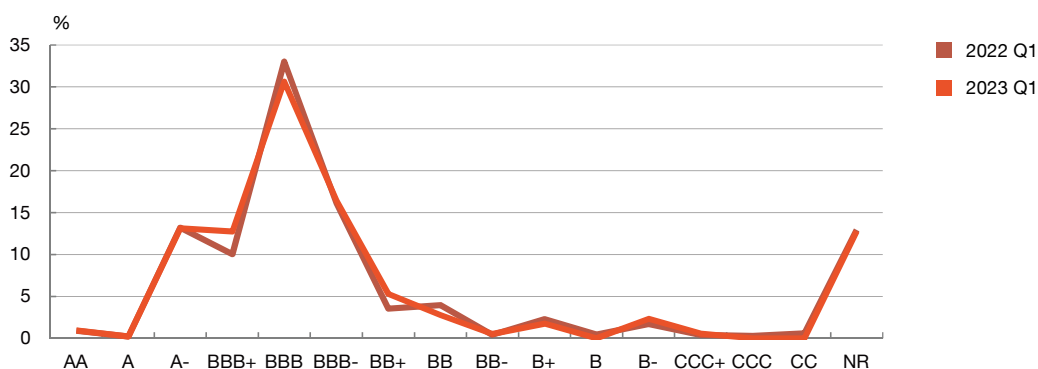


22 There was no deterioration in the credit rating of bonds issued by Spanish companies ...

- In 2023 Q1, the credit rating distribution of the outstanding bonds issued by Spanish NFCs and their subsidiaries, both resident and non-resident, was virtually unchanged on a year earlier. This is because there have been practically no rating changes. Nor have the ratings agencies placed Spanish firms on negative watch.
- That said, more than 47% of the outstanding bonds have a credit rating of BBB or BBB- (see Chart 22.a), i.e. just above the high-yield category (BB+ or lower). Therefore, the current credit quality structure of Spanish corporate bonds represents a vulnerability in the event of future adverse shocks, which could result in a significant share of NFC bonds losing their investment grade rating. This would significantly drive up financing costs.

Chart 22

22.a Breakdown of the outstanding balance of Spanish NFC bonds. By credit rating (a)



SOURCES: ECB, Eikon and Banco de España.

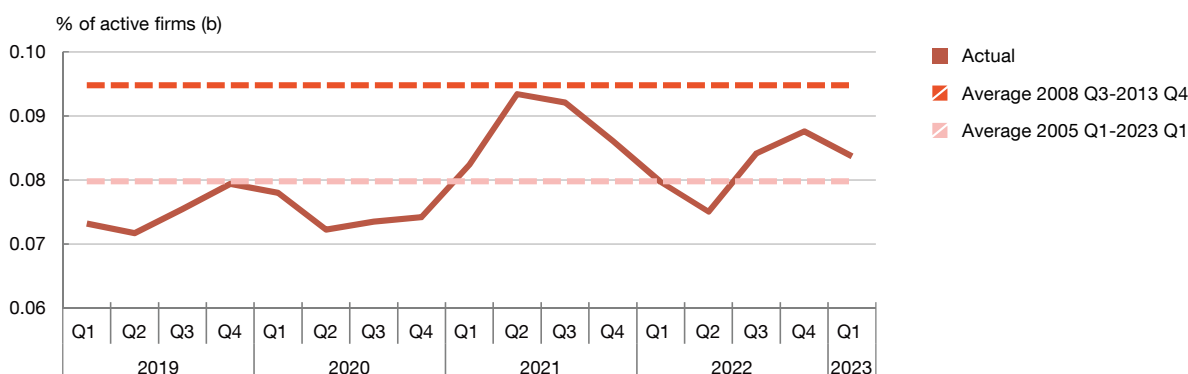
a Shown is the best credit rating assigned by the rating agencies. The results are presented based on the scale used by S&P and Fitch; the ratings used by Moody's and DBRS are standardised to that scale. NR = Not Rated. Data for ratings and outstanding bonds as at 31 March 2022 and 31 March 2023. The outstanding balance of a given firms' bonds is calculated based on those issued by the parent and by its resident and non-resident subsidiaries.

23 ... nor any uptick in corporate insolvencies

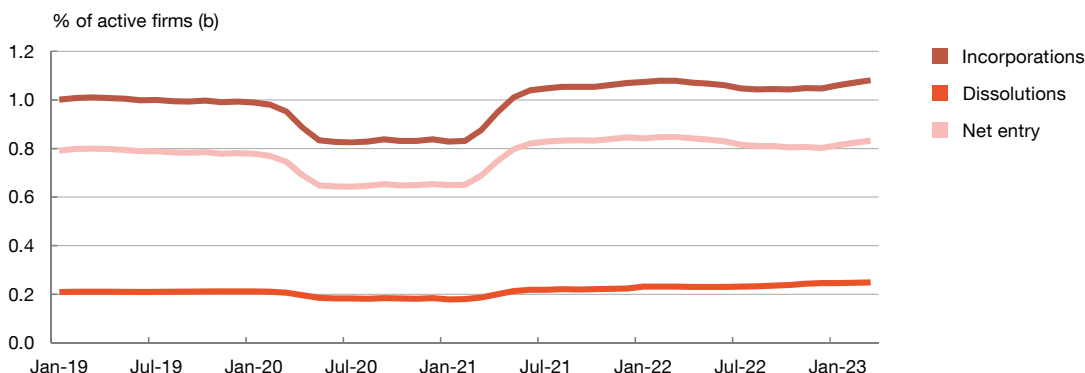
- The number of firms in insolvency proceedings increased in 2022 H2, influenced by the end of the insolvency moratorium (see Chart 23.a).⁹ In 2023 Q1, the insolvency rate (as a percentage of active firms) stood slightly above the average since 2005, but below the rates observed during the global financial crisis.
- The liquidation rate has risen in recent months but remains very low (0.25% of all active firms in April). Further, new company incorporations maintained the head of steam that followed the normalisation of activity in 2021, with the net entry rate standing at 0.83% in April, above the 2019 levels (see Chart 23.b).

Chart 23

23.a Number of insolvencies. NFCs (a)



23.b Incorporations, dissolutions and net entry of firms (c)



SOURCES: INE and Colegio de Registradores.

a Four quarter moving averages.

b The figure for total active firms is drawn from the central business directory (DIRCE) and is the sum of (i) public limited companies, (ii) limited liability companies, (iii) limited partnerships, (iv) incorporated partnerships, (v) joint ownerships and (vi) cooperatives.

c 12-quarter moving averages. The series of incorporations, dissolutions and net entry of firms (incorporations less dissolutions) is shown as a percentage of the number of active firms at 1 January of each year.



⁹ In April 2020, the Government approved an insolvency moratorium for all debtors, be they firms or individuals, suspending until 31 December 2020 debtors' duty to file for insolvency and preventing their creditors from filing a creditor's petition before that date. The moratorium ultimately expired on 30 June 2022.

Box 1

RECENT DEVELOPMENTS REGARDING THE CONSTRAINTS ON SPANISH FIRMS' ACCESS TO BANK FINANCING

Access to bank financing is a major factor determining firms' investment decisions, and one that may also affect other variables such as sales growth or recruitment.¹ In this box, the sample of Spanish SMEs² included in the Survey on the Access to Finance of Enterprises (SAFE), conducted on a six-monthly basis by the ECB, is used to analyse developments in their access to bank lending, with particular emphasis on the most recent period of monetary policy tightening. Against this backdrop, this box examines whether there are more constraints on firms that normally face greater difficulties in gaining access to credit, i.e. smaller, younger and more vulnerable firms.³

A significant proportion of SMEs are highly dependent on bank loans. On average, around 55% of the Spanish SMEs participating in the SAFE consider bank loans to be an important source of financing (see Chart 1). Only a third of these firms, on average, have reported seeking new financing of this type in the last six months. These trends have remained stable since 2014. Given that this box aims to analyse the constraints on firms' access to credit, the sample of firms referred to hereafter is limited to those that consider credit to be an important source of financing, regardless of whether or not they have used it in the last six months.

Based on firms' responses to the SAFE, an indicator of constraints on access to bank financing was constructed. This is a broad indicator which considers that a firm faces constraints if (i) its request for financing was rejected (narrow constraints indicator), (ii) it did not request financing fearing that it would not be granted (discouraged borrowers), (iii) it obtained financing, but received less than 75% of the amount requested, or (iv) it rejected the lender's offer since it considered the interest rate was too high.

The proportion of SMEs facing constraints in accessing bank loans, which are their main source of financing, was

still high in 2014 (above 20%) following the global financial crisis, and moved on a downward path until the first wave of the survey in 2019 (covering the period from October 2018 to March 2019), when it reached a low of 7% (see Chart 2). Subsequently, this ratio remained below 10%, only increasing temporarily during the pandemic. In 2022, coinciding with the ECB's monetary policy tightening, an increase in the percentage of firms with difficulties in gaining access to credit was observed. This proportion is estimated to have exceeded 11% in the latest wave, which covers the period from October 2022 to March 2023, thus reaching the highest level posted since 2016. The moderate rise in this indicator since the second wave of 2021 can be explained by the higher percentage of firms whose requests for financing were rejected (2.3 percentage points (pp)). In addition, both the rise in discouraged borrowers (0.7 pp) and in rejections due to the cost of the financing offered (0.5 pp) remain low.

According to the academic literature, smaller, younger and more vulnerable firms face greater difficulties in obtaining credit.⁴ The data from the SAFE survey for Spanish firms suggest likewise, as can be seen in Chart 3, which shows the correlation between firm characteristics and the probability of facing constraints in accessing bank credit.⁵ This analysis covers two periods. The first runs from the first wave of the survey in 2016 to the second wave in 2019, a period of sustained economic growth and of relative stability for benchmark bank lending rates. The second period covers the two waves of the survey in 2022 and coincides with the monetary tightening phase. As Chart 3 shows, there is generally a negative correlation between a firm's size and the probability of it facing such constraints. In particular, micro enterprises have faced greater restrictions in most of the waves covered by the survey. These difficulties have become somewhat more marked in the most recent period, but

1 See Miguel García-Posada Gómez. (2019). "Credit constraints, firm investment and employment: Evidence from survey data". *Journal of Banking and Finance*, Vol. 99, pp. 121-141, or Banco de España. (2017). *Annual Report 2016*.

2 The analysis is limited to SMEs since the survey does not contain information about the sector in which large firms operate, for confidentiality reasons. This is a significant factor which could help explain the differences between firms regarding the constraints on their access to financing. Moreover, the sample of large firms is very small and greater emphasis is placed on the SME segment, given that it normally faces greater credit constraints.

3 Vulnerable firms are defined as firms that simultaneously report lower turnover, decreasing profits, higher interest expenses and a higher or unchanged debt-to-assets ratio.

4 Evidence also shows that access to credit is affected by the availability of assets that may be used as collateral in financing operations, by total factor productivity and by possible problems of information asymmetries.

5 The analyses conducted hereafter consider firms' access both to bank loans and new credit lines. Note that Chart 2 cannot take into account both types of lending since the information on the factors determining the constraints on each type of financing is reported separately.

Box 1

RECENT DEVELOPMENTS REGARDING THE CONSTRAINTS ON SPANISH FIRMS' ACCESS TO BANK FINANCING (cont'd.)

Chart 1
SMEs that consider bank loans an important source of financing (a) (b)

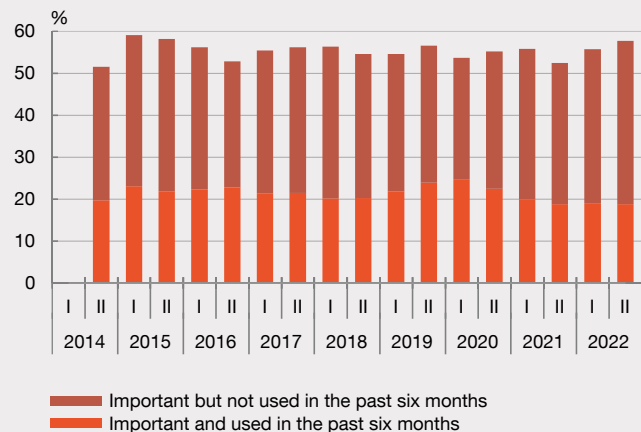


Chart 2
SMEs that have difficulties in obtaining bank loans (a)

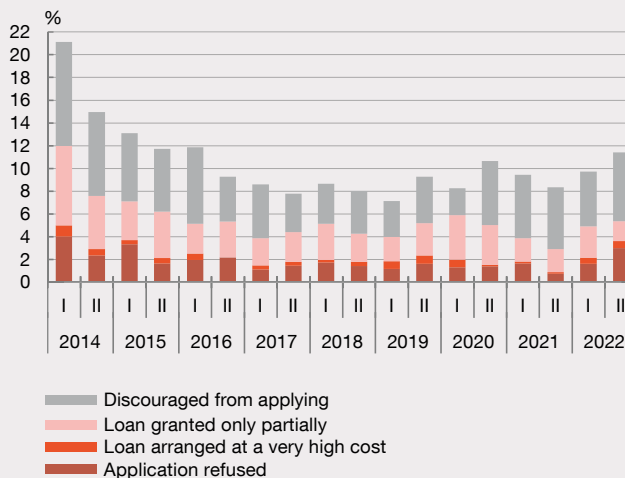


Chart 3
SMEs with bank credit constraints due to firm characteristics (a) (c)

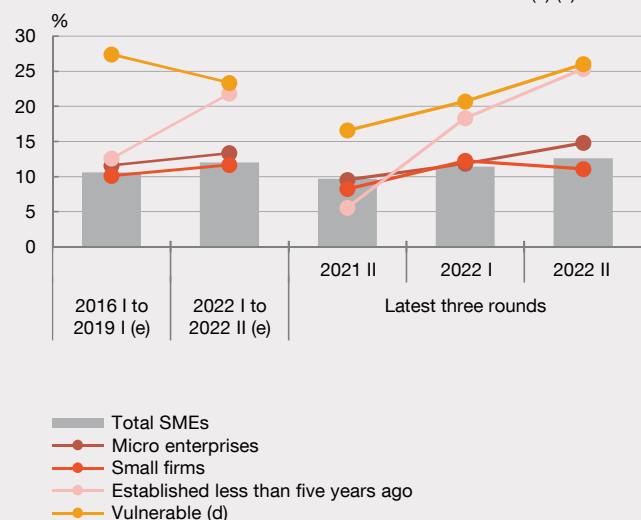
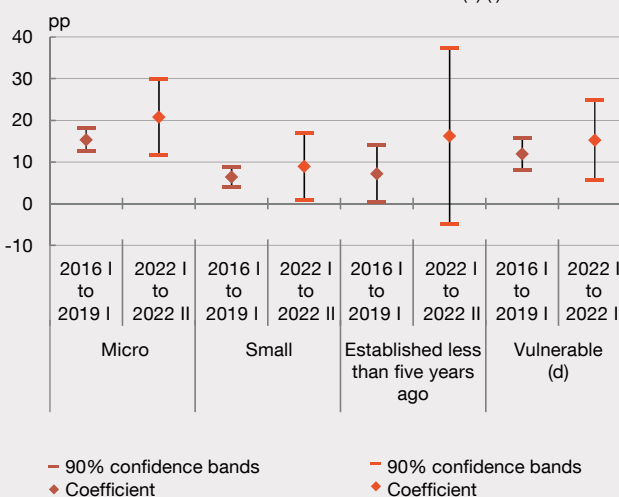


Chart 4
Effect of firm characteristics on bank credit constraints (a) (f)



SOURCES: Banco de España and ECB.



- a "2014 I" denotes the wave from April to September 2014 and "2014 II" the wave from October 2014 to March 2015, and so forth.
- b Classified as "important" if the firm has used this type of financing in the past or plans to use it in the future. This information is available as of the second wave of 2014, as in prior waves firms for which this source of financing was important did not report whether they had used it in the past six months.
- c A firm is considered to be facing bank credit constraints when it is in one of the following situations: it has not applied for a loan or credit line in the past six months because it anticipates it will be refused; it applied for a bank loan or credit line in the past six months and received less than 75% of the amount requested; it rejected the loan or credit line because of the very high cost; or its application was refused by the bank. Both loans and credit lines are taken into account, so a firm may be considered constrained due either to a loan or a credit line application.
- d A firm is considered vulnerable in a particular wave if it simultaneously reports, for the previous six months: lower turnover, decreasing profits, higher interest expenses and a higher or unchanged debt-to-assets ratio.
- e The average of the percentages for the corresponding periods.
- f The diamonds denote the coefficient estimated from a regression analysis for a series of firm characteristics where the dependent variable is a categorical variable indicating whether the firm's access to bank loans or credit lines is constrained (see note c for a detailed description of this indicator). The regressors of interest, whose coefficients are shown in the chart, are categorical variables relating to firm size (micro enterprise or small firm), age (established less than five years ago) and vulnerability (see note d). Additionally, the regression uses time fixed effects and a series of controls proxying a firm's profitability, export capacity, sector of activity and legal structure. The coefficients for a period of stability in benchmark bank lending rates (2016 I to 2019 I), along with their 90% confidence bands, are shown in copper. The estimates for the most recent period (2022), when interest rates have risen, are shown in orange.

Box 1

RECENT DEVELOPMENTS REGARDING THE CONSTRAINTS ON SPANISH FIRMS' ACCESS TO BANK FINANCING (cont'd.)

more so for micro enterprises than for SMEs overall.⁶ In addition, constraints on access to bank financing have been found to be negatively correlated to a firm's age (young firms are proxied as those that are less than five years' old), and positively correlated to a firm's vulnerability or risk. Indeed, vulnerable firms faced the most constraints on their access to bank financing during the period of macroeconomic stability (2016-2019), and have experienced a sustained, albeit moderate, increase in difficulties in accessing credit since late 2021.

In order to fully disentangle the relationship between SME characteristics and financing constraints, a regression analysis controlling for other factors that could also affect access to credit was conducted. The dependent variable in this regression is an indicator showing whether a firm has faced constraints in accessing credit, in line with the broad indicator described in Chart 3. The regressors are categorical variables relating to firm size, age and vulnerability, as mentioned above, and a series of controls for firm-specific characteristics and time fixed effects.

The findings confirm that smaller, younger and more vulnerable firms face greater difficulties in obtaining credit. Specifically, in the period 2016-2019, micro enterprises and small firms in Spain were 15 pp and 6 pp, respectively, more likely to face constraints on access to bank financing than medium-sized firms (represented by

the copper-coloured dots in Chart 4). Moreover, the probability of young firms and the most vulnerable firms experiencing constraints was 7 pp and 12 pp, respectively, higher than for older and less vulnerable firms. In addition, the difficulties faced by these types of firms increased moderately in 2022. Thus, the probability of micro enterprises and small firms suffering constraints rose by 5 pp and 3 pp, respectively (represented by the orange dots in Chart 4). The probability of the most vulnerable firms suffering constraints also increased (by an additional 3 pp).⁷ Although the findings point to a more pronounced increase in constraints for certain types of firms based on the direct comparison of estimated coefficients, the 90% confidence bands suggest that the difference in coefficients estimated for the two periods may not be statistically significant. This is mainly due to the size of the standard errors of the regression analysis for 2022, possibly on account of the lower number of observations used. In order to ascertain whether the differences between the two periods for each type of firm are statistically significant, an additional regression analysis was conducted,⁸ following which it was concluded that only the increase corresponding to micro enterprises would be statistically significant at a significance level of 90%. The increase associated with vulnerable firms would be marginally non-significant in statistical terms.

6 The stratification by size in the SAFE survey comprises three SME categories: micro enterprises (one to nine employees), small firms (10 to 49 employees) and medium-sized firms (50 to 249 employees).

7 The estimated increase for young firms has been more marked in terms of percentage points (9 pp), although the coefficient obtained is not statistically significant. This is because the standard error of estimate is high, given the relatively small number of firms in the sample that were established less than five years ago (under 3%).

8 Specifically, the regression analysis conducted is similar to that shown in Chart 4 but includes the two periods (2016 I to 2019 I and 2022 I to 2022 II) in a single estimate. This new analysis uses as regressors the interaction between a categorical variable that takes the value of one in the two 2022 waves and of zero in the remaining waves, with each of the variables defining the firms that normally face greater constraints in their access to credit. The coefficients estimated for these interaction terms indicate whether there are any differential effects on the constraints faced by each type of firm in 2022.

Box 2

THE IMPACT OF INFLATION AND HIGHER INTEREST RATES ON HOUSEHOLDS' FINANCIAL SITUATION BY INCOME LEVEL

High inflation and monetary policy tightening in the euro area are having an adverse impact on households' financial situation in recent quarters. Although households' nominal gross disposable income (GDI) in 2022 was 6.8% higher than in 2020, their purchasing power in that period fell by 4.5% as a result of inflation. This has restricted Spanish households' ability to spend and save. Inflation has also eroded the real value of more liquid financial assets, limiting households' ability to use their savings to cover their expenses. Moreover, although inflation also reduces the real value of households' debts, higher interest rates have driven up the interest burden for households with variable-rate loans, which has also reduced their ability to spend.

The effects of rising inflation and higher interest rates on households' financial situation and consumption are uneven across households, as they depend on the composition of their spending, their ability to save, their level of indebtedness and type of debt and their financial asset holdings. All these factors tend to vary by income level.

This box draws on information from the *Encuesta Financiera de las Familias* (Spanish Survey of Household Finances), specifically EFF 2020 which is the latest wave available, to identify the different impact that higher inflation and interest rates could have according to households' income level.¹

Lower income households are more vulnerable to rising inflation owing to the composition of their consumption basket and their lower ability

to save. The consumption of households in the bottom quintile of the income distribution absorbs almost all their disposable income and is more concentrated on staple goods and services. Specifically, 55% of their income is spent on staple goods such as food and basic utilities (water, electricity, telephone, etc.), compared with 30% for those in the median quintile (see Chart 1). If rental of the main residence and debt servicing (interest plus principal payments)² are included, in 2020 essential expenditure amounted to 79% of income of households in the bottom income quintile, compared with 44% for those in the median quintile. Moreover, inflation has had a considerable impact on staple goods and services, which has meant that lower income households have borne higher rates of inflation than the economy overall.³ According to García-Miralles (2023),⁴ between August 2021 and September 2022 the inflation borne by the bottom 30% of households by income was around 11.3%, compared with 9.7% for the top 30%.

To assess the impact of higher inflation and interest rates by income level, the following exercise is conducted. First, the impact of inflation is assessed for each income quintile in the EFF 2020. This is done by applying, to each component of essential consumption expenditure, the cumulative inflation in 2021 and 2022 according to the corresponding heading of the Harmonised Index of Consumer Prices (HICP).⁵ The simulation is made under the assumption that nominal household income increases by 6.8%, equivalent to the increase in households' GDI in the National Accounts between

1 The income variable in the EFF refers to total gross income before tax, that is, the sum of all income received by all household members including, inter alia, employment income, capital income and income from public transfers.

2 All debts are included: main residence and other real estate debts, credit card debts and others.

3 For an analysis of the distributional effects of inflation in Spain between 2006 and 2021, see Henrique Basso, Ourania Dimakou and Myroslav Pidkuyko. (2023). "How inflation varies across Spanish households". Documentos Ocasionales – Banco de España, 2307.

4 García-Miralles, Esteban. (2023). "Support measures in the face of the energy crisis and the rise in inflation: an analysis of the cost and distributional effects of some of the measures rolled out based on their degree of targeting". *Economic Bulletin – Banco de España*, 2023/Q1, 15.

5 The information on main residence rental expenditure is drawn from the Ministry of Transport, Mobility and Urban Agenda. There are no data available for 2022 so the HICP figure is used.

Box 2

THE IMPACT OF INFLATION AND HIGHER INTEREST RATES ON HOUSEHOLDS' FINANCIAL SITUATION BY INCOME LEVEL (cont'd)

Chart 1
Distribution of household expenditure in 2020

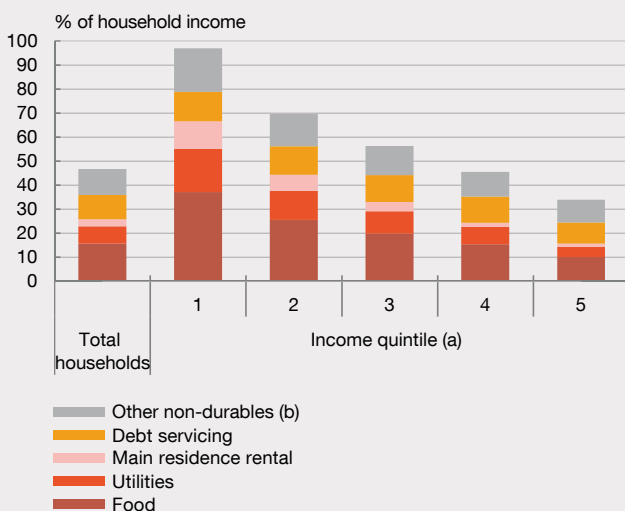


Chart 2
Financial situation in the face of higher inflation and interest rates. Total households (c) (d)

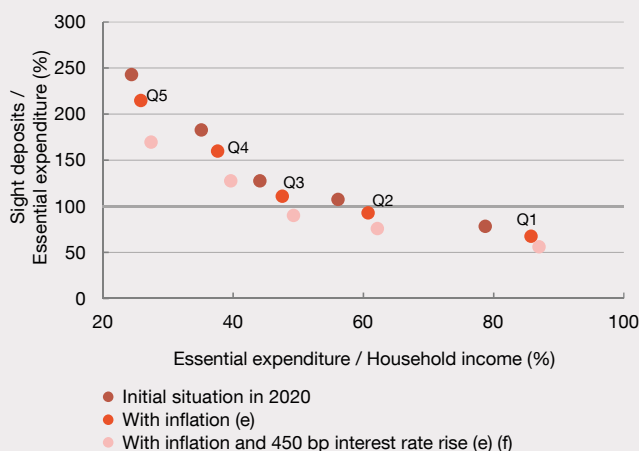


Chart 3
Percentage of households that cannot meet their essential expenses with either their income or their sight deposits (c)

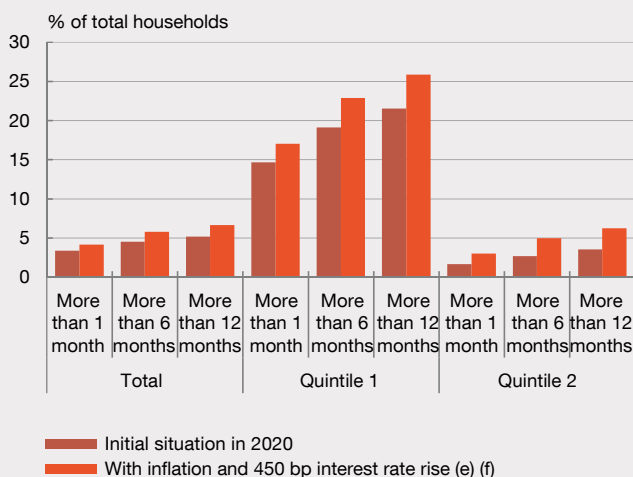
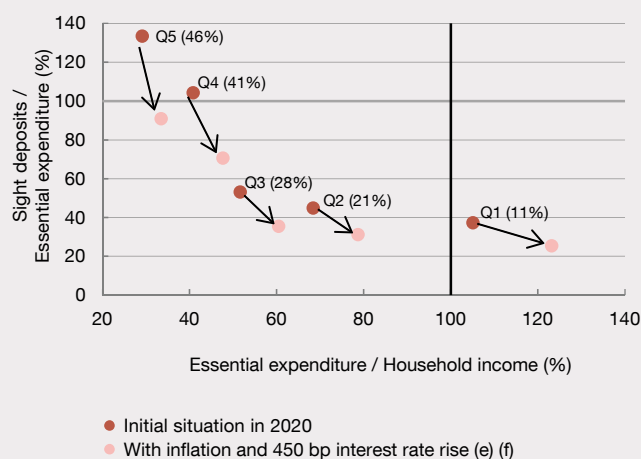


Chart 4
Financial situation in the face of higher inflation and interest rates. Households with variable-rate debt (c) (d) (g)



SOURCES: Banco de España, EFF 2020 and INE.

- a The income quintiles are defined for the sample of all households.
b Expenditure not included in food or utilities, such as leisure, education, travel, etc., excluding expenditure on durable goods.
c Essential expenses are defined as the sum of the expenditure on food, utilities, rental of main residence and debt servicing.
d Mean ratios calculated as the sum of the numerator of the households in each quintile divided by the sum of the denominators of the households in each quintile.
e The impact of inflation is obtained by multiplying each component of essential consumption expenditure by the cumulative inflation in 2021 and 2022. Household income is updated in line with nominal GDI growth.
f It is assumed that interest rate rises are passed through fully to the cost of variable-rate loans and that sight deposits decline owing to the shift to time deposits. Specifically it is understood that sight deposits decrease in terms of the historical relationship between their share of total deposits and the interest rate differential between the two deposit types.
g The figures in brackets denote the percentage of households with variable-rate loans in the quintile.



Box 2

THE IMPACT OF INFLATION AND HIGHER INTEREST RATES ON HOUSEHOLDS' FINANCIAL SITUATION BY INCOME LEVEL (cont'd)

2020 and 2022, and that this increase applies equally to all households. This is a simplifying assumption, owing to the lack of more granular data, which fails to take into account changes in the income distribution that could affect some of the simulations made here.⁶

Second, the additional impact is considered of an interest rate rise of 450 basis points (bp), in line with the increase observed in the 12-month EURIBOR from December 2021 to the cut-off date for this report. Under the simulation assumptions, this interest rate rise is passed through fully to the cost of variable-rate borrowing, and partially to deposit interest rates.⁷ The increase in interest rates also affects the composition of deposits. Specifically, it is assumed that there is a shift from sight deposits to time deposits, with sight deposits decreasing in terms of the historical relationship between their share of total deposits and the interest rate differential between the two types of deposits.

Under these assumptions, the essential spending of households in the first income quintile rises from 79% of their total gross income in 2020 to 86% in 2022 as a result of inflation, and to 87% adding in the impact of the higher interest rates (see Chart 2).

These households also have fewer liquid financial assets available to meet their consumption needs. In 2020, the sight deposits of households in the bottom income quintile covered only 78% of their annual essential consumption. The impact of inflation and the interest rate rises reduce this figure to 56%. Moreover, for households in the first three income quintiles, the capacity of their sight deposits to cover their essential expenditure drops below 100%. This could be a more widespread restraint on consumption.

The rising cost of living and of debt servicing drives up the number of households whose income is not sufficient to meet their essential expenses. In 2020, 7% of households had insufficient total gross income to meet their essential expenses; in 2022, given the higher inflation and interest rates, this figure rises to 9%. The percentage of financially fragile households – defined as those who cannot meet more than one month's essential expenses with either their income or their sight deposits – rises from 3.4% to 4.1%⁸ (see Chart 3). These figures are significantly higher in the first income quintile, where the percentage of financially fragile households rises from 14.6% in 2020 to 17%⁹ in 2022.¹⁰ The percentage of

6 The EFF 2020 does not reflect the poor performance of low incomes during 2020 as a result of the pandemic. The EFF income variable refers to the calendar year preceding the survey year, updated in line with the CPI. Accordingly, the vulnerability indicators calculated for the initial situation in 2020 may be relatively optimistic, especially for low income households. This situation was subsequently reversed as a result of the social protection measures implemented and employment growth, as seen in the *Encuesta de Condiciones de Vida* (Spanish Living Conditions Survey) with data up to 2021 where income growth is proportionally higher among the low income brackets. If the stronger recovery in low incomes since 2020 were taken into account, the vulnerability indicators simulated for 2022 would show less deterioration than that shown here.

7 Specifically, drawing on historical evidence, the elasticity assumed is 0.16 for sight deposits and 0.87 for time deposits. In any event, the evidence available since the rate hiking cycle began in early 2022 shows that, so far, the pass-through to time deposits is slower than in the past. 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. 140-180.

8 This percentage barely changes if other financial assets available to cover essential expenditure are considered.

9 If other financial assets available, such as time deposits, listed shares, investment funds and other debt securities, are considered, these percentages barely change. Specifically, given this broader definition of financial assets available to cover expenses, 14.6% of households are unable to cover more than one month's essential expenditure in 2020, and 16.3% in 2022, that is, just 0.7 pp less than under the assumption that only sight deposits are used to cover these expenses.

10 See also Banco de España. (2023). "Box 1.1 Impact of inflation and interest rate developments on households' financial fragility". *Financial Stability Report – Banco de España*. Spring 2023. The box sets out the percentages of fragile households, understood as indebted households whose monthly income plus the available balance on their bank accounts are not sufficient to cover their main monthly expenses. The percentages of households deemed financially fragile differ from those shown in Chart 3 essentially because different expenditure aggregates are used, and because from a financial stability standpoint the focus is on indebted households.

Box 2

THE IMPACT OF INFLATION AND HIGHER INTEREST RATES ON HOUSEHOLDS' FINANCIAL SITUATION BY INCOME LEVEL (cont'd)

households with deposits that are not sufficient to meet the essential expenses not covered by income for more than six months increases from 4.5% to 5.8%. For the first income quintile it rises from 19.1% in 2020 to 22.9% in 2022.

Given that higher interest rates have a direct impact on households with variable-rate loans, the results of the simulation shown in Chart 2 are repeated in Chart 4 exclusively for households with variable-rate loans. It shows that these households are more vulnerable, irrespective of their income levels. Not only because they devote a larger proportion of their income to meeting their essential expenses (which, as explained earlier, include debt servicing), but also because their liquid assets cover a smaller proportion of those expenses. Moreover, these households are more severely affected by inflation and higher interest rates. For instance, for the median income quintile, when the full sample is considered the percentage of income devoted to essential expenditure increases from 44% to 49%, whereas

for the households with variable-rate loans it rises from 52% to 60%. Vulnerability is concentrated, once again, in the first two income quintiles, where financial fragility is higher and is increasing. However, the percentage of indebted households in these groups is quite low: 11% in the first income quintile and 21% in the second, compared with over 40% in the top two quintiles.

The results obtained show that lower income households are more vulnerable to inflation and rising interest rates. This could advise the introduction of economic policy measures to support these households. In this respect it is important to note that these simulation exercises do not consider other key aspects that have affected households' financial situation in recent quarters. Specifically, among other measures, the income transfers to low income households, the one-off increase in non-contributory pensions, the introduction of the minimum income scheme and the reform of the Code of Good Practice¹¹ can be expected to have helped mitigate some of the effects described here.

11 See Banco de España. (2023). "Special Feature. Codes of good practice for principal residence mortgages and supplementary measures". *Financial Stability Report – Banco de España*. Spring 2023. https://www.bde.es/f/webbde/Secciones/Publicaciones/InformesBoletinesRevistas/InformesEstabilidadFinancera/23/FSR_2023_1_SF.pdf

How to cite this document

Banco de España. (2023). *Report on the financial situation of households and firms. First half of 2023*. <https://doi.org/10.53479/30699>

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