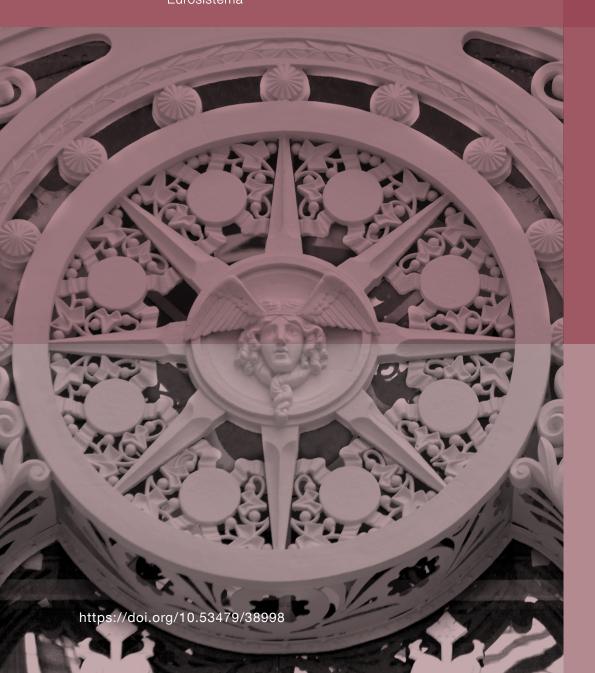
REPORT ON THE FINANCIAL SITUATION OF HOUSEHOLDS AND FIRMS

Second half of 2024

BANCO DE **ESPAÑA**Eurosistema



Report

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BOX 1

The impact of cost of debt developments on investment by Spanish firms

This box presents microeconomic evidence on the negative relationship between investment and the cost of borrowing for firms. The findings suggest that the rise in ECB interest rates during the recent period of monetary tightening had adverse, though highly uneven, effects on business investment. The impact has been significantly greater on firms with low capital and liquidity levels and on those most exposed to interest rate changes due to the predominance of short-term and variable-rate loans on their balance sheet.

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BOX 2

A composite indicator of aggregate household financial vulnerability

This box presents a composite indicator of Spanish households' aggregate financial vulnerability, combining five key dimensions to measure the sector's financial soundness. The indicator shows a relatively benign aggregate financial situation for Spanish households since 2015, underpinned by the sector's deleveraging, low borrowing costs through to 2022 and an improving labour market. Recently, real incomes and saving have helped keep the vulnerability indicator at low levels.

BOX 3

Probability of default in bank lending to firms: recent developments

Since mid-2022 the average probability of default (PD) of loans to Spanish non-financial corporations of all sizes has been on a downward trend, according to an aggregate index of PD based on information reported by Spanish banks to the Central Credit Register. This primarily owes to a shift in the composition of credit towards lower-risk borrowers.

Editorial

Households' and firms' financing conditions improved in 2024 H2, reflecting the less restrictive European Central Bank monetary policy and market expectations for further policy rate cuts in the coming months. In a highly dynamic macroeconomic environment, the fall in the cost of new financing has heightened demand for funds, prompting the year-on-year growth in the stock of household and firm debt to turn slightly positive. This contributed to a rise in household consumption expenditure – although the saving rate remains at high levels by historical standards – and business investment, although the latter has again been softer than expected in recent quarters (Box 1).

Households' financial situation has improved, supported by robust economic activity and a buoyant labour market, which have surprised on the upside in recent months and, along with the moderation in inflation, have continued to drive growth in real household income. For households with variable-rate loans, the interest burden has begun to fall, and will do so more quickly in the coming quarters if financial market expectations for interest rates are borne out. It is estimated that in 2025 H1 more than 60% of variable-rate loans to households (and to firms) could see their cost fall by more than 100 basis points compared with September 2024. In addition, the increase in house prices in recent quarters, while hindering housing affordability for some, has bolstered households' financial position overall. All the above has driven down households' financial vulnerability to low levels from a historical standpoint, as evidenced by both aggregate indicators (Box 2) and simulations carried out using microeconomic data. Against this backdrop, the quality of loans to households on banks' balance sheets has improved.

The financial position of firms also remained benign in 2024 H2, with profits continuing to grow apace. However, there was still significant heterogeneity by sector of activity, with the services sector and, in particular, trade and hospitality continuing to perform better than industry, in line with the recent composition of Spain's GDP growth. On the whole, the corporate sector has again demonstrated a solid financial position. Aggregate debt ratios are near all-time lows and the share of vulnerable firms has held stable, likewise at historically reduced levels. Against this backdrop, there has been a decline in troubled corporate loans on banks' balance sheets. This appears to reflect the increase in the relative share of loans to higher credit quality firms (Box 3).

As indicated in the latest Macroeconomic projections and quarterly report on the Spanish economy, Spain's economic growth is likely to remain robust in 2025. In addition, the less restrictive monetary policy anticipated by markets will continue to ease the debt burden of indebted households and firms, while also improving financing conditions, which will help to underpin consumer spending and investment. In any event, the risks to the economic outlook are on the downside. In particular, the above-mentioned projections highlight the risks associated

¹ This effect has been offset in recent quarters by the growth in income and the falling cost of financing.

with the fragmentation of international trade flows (in part due to a possible increase in tariffs imposed by the United States). Similarly, in financial markets, risk-bearing asset prices are very high, while equity risk premia are very low, which, in the current context of high uncertainty, increases the likelihood of sharp corrections that could lead to a tightening of financial conditions.

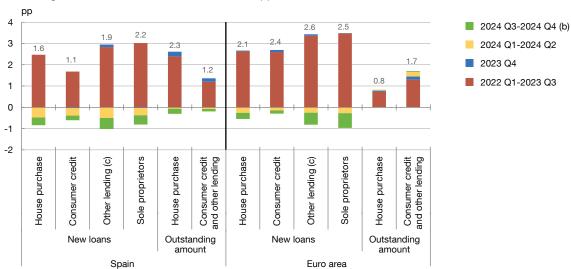
BANCO DE ESPAÑA

1 Favourable developments in financing conditions drove demand for loans to households in 2024 H2

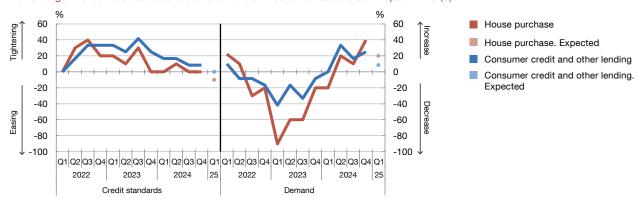
- In keeping with the less restrictive monetary policy stance, the cost of new lending to households continued to decline in 2024 H2 (Chart 1.a). In contrast to the lesser pass-through of key interest rates in Spain compared with the euro area average during the interest rate hiking cycle that began in 2022, in 2024 the cumulative decline in lending rates was generally more marked in Spain. The higher prevalence of variable-rate mortgages and short-term consumer loans in Spain contributed to a decrease in the average cost of outstanding loans in 2024, while in the euro area the average cost continued to rise.
- According to the BLS, credit standards for loans for house purchase remained stable in 2024 Q3 and Q4, while those for consumer credit and other lending tightened less than in previous quarters. Loan demand rose from Q2, driven mainly by a decline in the cost of borrowing (Chart 1.b).

Chart 1

1.a Change in the cost of bank loans to households (a)



1.b Change in credit standards and demand for bank loans to households in Spain. BLS (d)



SOURCES: ECB and Banco de España.

- a Bank rates are narrowly defined effective rates (NDERs), i.e. they exclude related charges such as repayment insurance premiums and fees. Interest rates on new loans are adjusted seasonally and for the irregular component.
- **b** Data to November.
- c Excludes loans to sole proprietors.
- d The percentage of banks reporting a tightening/increase less the percentage reporting an easing/decrease.

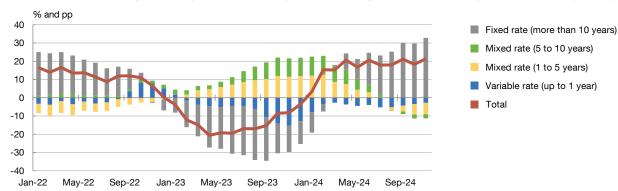


This translated into more robust lending for house purchase ...

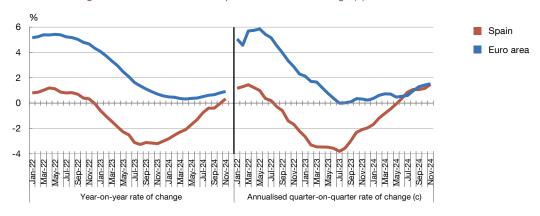
- The volume of new loans for house purchase continued to rise in 2024 H2, with an increase in fixed-rate mortgages and a decline in mixed or variable-rate mortgages (Chart 2.a). Fixed-rate mortgages accounted for 62% of total new mortgage loans in 2024 H2 (to November), compared with 44% in the same period of 2023. Mixed and variable-rate mortgages represented 28% and 10%, respectively, compared with 40% and 16% one year earlier.1
- The outstanding amount of mortgages to households began to rise in mid-2024, ending two years of continuous declines. In November 2024 the year-on-year growth rate stood at 0.3%, while the annualised quarter-on-quarter rate was 1.5% (Chart 2.b). Lending for house purchase likewise gained momentum in the euro area, with the outstanding amount up 0.9% year-on-year in November 2024 (1.5% in annualised quarter-on-quarter terms).

Chart 2

2.a Volume of new lending for house purchase. Year-on-year rate of change and contributions by initial rate fixation period (a)



Outstanding amount of loans for house purchase. Rate of change (b)



SOURCE: Banco de España.

- a Three-month cumulative data. Includes renegotiations of existing loans. The classification of the mortgage rate type based on the initial rate fixation period is an approximation and may not reflect the loan's actual rate type.
- **b** Securitisation adjusted data (for the euro area, data are only available from December 2021).
- c Seasonally adjusted data.



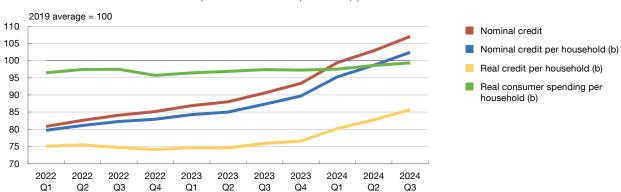
¹ See note a of Chart 2.a the definition used for these types of loans.

3 ... and an acceleration in consumer lending

- In 2024 H2 new consumer lending continued to grow in nominal terms (20.6% year-on-year to November) and in real terms per household (Chart 3.a). In 2024 Q3 real private consumer spending per household had nearly recovered pre-pandemic figures, while the real flow of credit remained 14% below those levels.
- According to the CCR, the year-on-year growth in new consumer credit was broad-based across income levels (proxied by the average income for the household's postcode district), but somewhat more pronounced among lower-income households (4.7 pp higher in the bottom quintile of the income distribution than in the top quintile). This increase primarily owes to a rise in the number of borrowers and, to a lesser extent, higher credit per household.
- The outstanding amount of consumer credit grew by 6.7% year-on-year in November 2024. Purchases of durable goods remained the main driver of this growth, although the contribution of non-durable goods purchases has increased since early 2024 (Chart 3.b), amid a recovery in household consumer spending.

Chart 3

3.a Volume of new consumer loans and private consumer expenditure (a)



3.b Outstanding amount of consumer credit, by purpose. Year-on-year rate of change and contributions



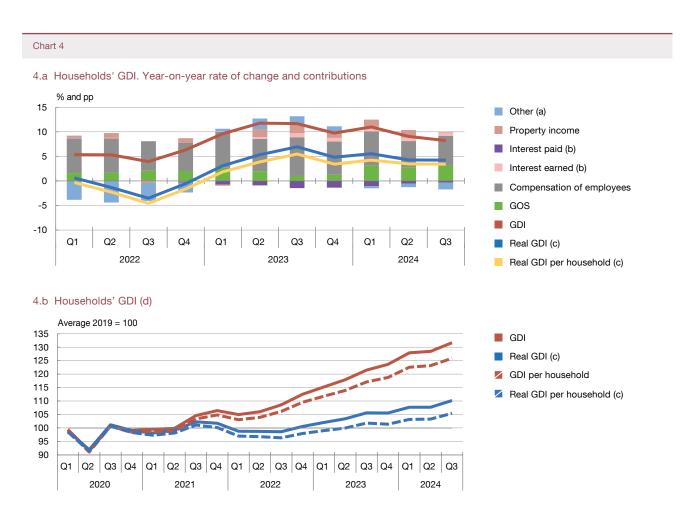
SOURCES: INE and Banco de España.

- a Seasonally adjusted series. For the real-term series, the private consumption deflator is used.
- **b** Divided by the total number of households (both with and without loans).
- c Loans that have been derecognised by the originating credit institution and transferred, either to securitisation special purpose entities or another type of assignee (but continue to be administered by a monetary financial institution) or to Sareb (the asset management company for assets arising from bank restructuring). The purpose of the loans cannot be determined on the information available.
- d Year-on-year rates calculated based on outstanding amounts, meaning they are affected by reclassifications and write-offs



Household income continued to grow in real terms per household in 2024 Q3 ...

- Household GDI grew by 8.2% year-on-year in 2024 Q3, 0.8 pp less than in the previous quarter, while in real terms the growth rate held at 4.2% (Chart 4.a). The slowdown in nominal GDI owed mainly to more sluggish growth in property income, while the contribution of employee compensation to the increase in GDI was up by 0.7 pp to 6 pp thanks to employment growth, which offset the easing in compensation per employee.
- In 2024 Q3, real GDI per household was 5.4% higher than its 2019 average (Chart 4.b).



SOURCES: INE and Banco de España.

- a Includes allocation of FISIM.
- **b** Prior to allocation of FISIM.
- c The private consumption deflator is used.
- d Seasonally adjusted series.

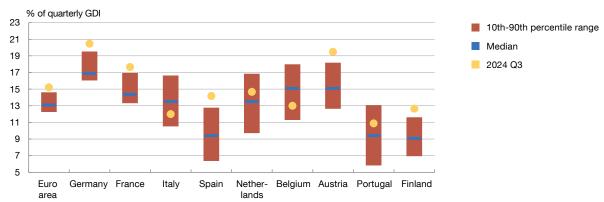


5 ... while the saving rate rose slightly, holding at historically high levels

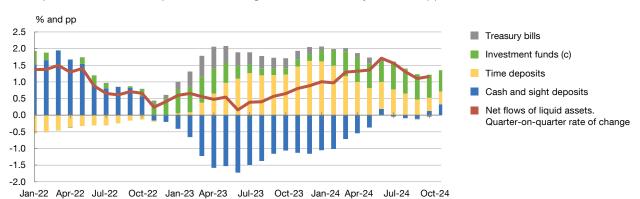
- As a share of GDI, household saving increased by 1.1 pp in 2024 Q3 to 14.2%. As in most euro area countries, the saving rate stands at historically high levels, above the 90th percentile of the series since 1999 (Chart 5.a). This situation may reflect, among other factors, a decline in households' marginal propensity to consume, which, according to the Spanish Survey of Household Finances (EFF by its Spanish acronym), was especially pronounced among higher-income households, renter households and those whose liquid assets have increased the most.
- Net investments in time deposits slowed in 2024 H2 (Chart 5.b), after their remuneration began to decline from July, with a cumulative decrease of 44 bp to 2.2% in November. Net outflows of cash and sight deposits came to an end, with net inflows beginning to appear in late 2024, while net subscriptions of investment funds grew at similar rates to H1.

Chart 5

5.a Household saving rate from a historical perspective (1999-2024) (a). International comparison



5.b Liquid assets. Quarter-on-quarter rate of change and contributions by instrument (b)



SOURCES: European Commission, INE and Banco de España.

- a Seasonally adjusted quarterly data.
- b Seasonally adjusted data. Quarter-on-quarter rate of change calculated as net flows divided by the outstanding amount, which excludes the price effects of investment funds from December 2021. The latest data are for November 2024, except for Treasury bills and total liquid assets, which are for October.
- c Net subscriptions (excl. valuation effects).

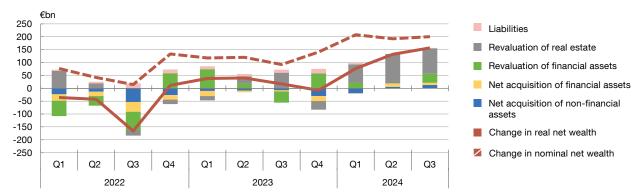


6 Rising property prices continued to drive up the wealth of homeowners ...

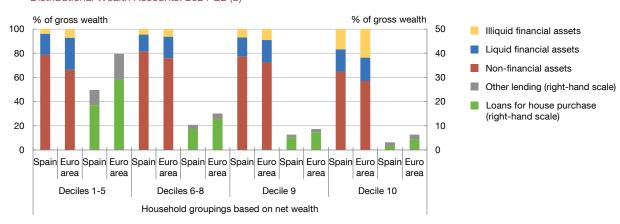
- Households' real net wealth grew in 2024 Q3, supported by both asset revaluation and, to a lesser extent, net asset purchases (Chart 6.a). The main driver was house price growth (up by 2.1% on the previous quarter), followed by the revaluation of financial assets. The contributions, in real terms, of net purchases of financial assets and real estate turned positive from Q2, having been negative since mid-2021.
- According to the Distributional Wealth Accounts,² Spanish households in all wealth brackets concentrate more of their gross wealth in real estate assets than their euro area counterparts. However, debt for house purchase accounts for a lower percentage of household gross wealth than in the euro area (Graph 6.b). This is largely due to the proportion of dwellings in Spain owned by debt-free households aged over 65.

Char 6

6.a Net wealth. Quarter-on-quarter change by component of real net wealth (a)



6.b Composition of gross wealth by instrument based on net wealth. Distributional Wealth Accounts. 2024 Q2 (b)



SOURCES: ECB and Banco de España.

- a Nominal flows are seasonally adjusted and deflated with the consumption deflator. Liabilities are presented with the sign changed.
- b Experimental statistics published by the ECB based on data from the 2021 wave of the Household Finance and Consumption Survey.



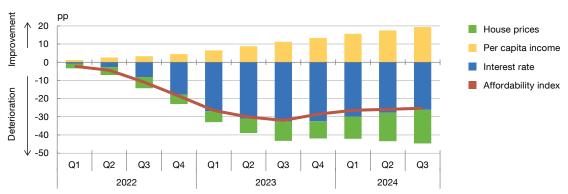
² Experimental statistics produced by the ESCB to provide by distributional information on household wealth.

... but continued to make housing less affordable for potential new buyers

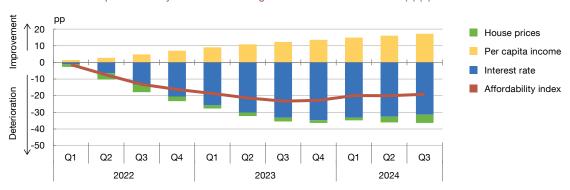
- Rising house prices have continued to worsen housing affordability. However, since 2023 Q4 this effect has been more than offset by the growth in per capita income and the decrease in borrowing costs. This led to a slight improvement (6.6 pp year-on-year to Q3) in the indicators that proxy home ownership affordability for buyers with mortgage financing, although a large part of the cumulative tightening in the period 2022-2023 persists (Chart 7.a).
- In the euro area, per capita income growth and lower borrowing costs had a smaller impact on the improvement in affordability in 2024 (7 pp, versus 12.2 pp in Spain) (Chart 7.b). However, lower house price growth in the euro area since 2022 has contained the cumulative deterioration in the affordability index since then (19.2 pp in the euro area, versus 25.3 pp in Spain).

Chart 7

7.a Home ownership affordability. Cumulative change since end-2021. Spain (a) (b)



7.b Home ownership affordability. Cumulative change since end-2021. Euro area (a) (b)



SOURCES: Eurostat, ECB and Banco de España.

a Affordability index calculated following the methodology used in the Atlanta Fed's HOAM Index. The change in the index and its components is expressed in percentage points of the change in their respective logarithms. 2021 Q4 = 100.

[&]quot;House prices" is measured using the house price index (HPI), "per capita income" is the ratio of seasonally adjusted GDI to the population and "interest rate" is the cost of new loans to households for house purchase.

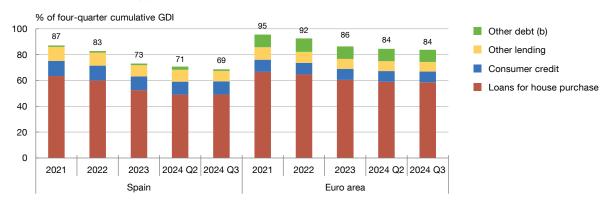


8 The household debt ratio fell slightly in 2024 Q3 ...

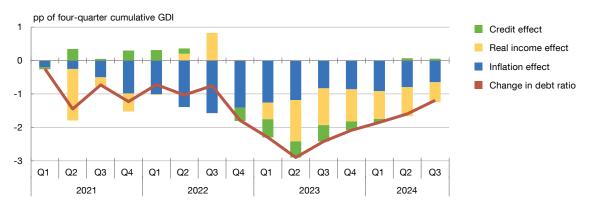
- The household debt ratio stood at 69% of GDI (44% of GDP) in 2024 Q3, down slightly from Q2. These figures are below the euro area average, where the household debt ratio stabilised at 84% of GDI (52% of GDP) (Chart 8.a). Unlike in the euro area, since 2013 loans for house purchase have gradually accounted for a smaller share of total Spanish household debt. In 2024 Q3 they represented around 70% of debt, not too dissimilar from the euro area figure, but down almost 7 pp since 2013.
- For the first time since mid-2022, nominal household debt ceased to decline in 2024 Q2 (Chart 8.b). Inflation
 continued to erode real household debt and, together with the growth in real income, helped bring the debt ratio
 down.

Chart 8

8.a Household debt ratio (a)



8.b Breakdown of quarterly change in debt ratio (c)



SOURCES: INE, ECB and Banco de España.

- a Annual figures refer to Q4.
- **b** Loans received from non-residents in each area.
- c Seasonally adjusted outstanding amount.



9 ... and the interest burden as a percentage of income held steady, as the cost of outstanding debt remained high

- Interest payments rose slightly in 2024 Q3, although as a percentage of GDI they barely changed (Chart 9.a). The average cost of outstanding debt remained at historically high levels despite the slight decrease in recent months. This decline is expected to steepen in 2025 H1, when the cost of over 60% of variable-rate mortgages will fall by more than 100 bp (compared to September 2024), according to simulations conducted using the CCR and the market's interest rate expectations in early January 2025.³
- Higher interest income kept the net interest burden (interest payments less interest income) as a percentage of GDI on the downward path it began in early 2024, standing at 1.3% in 2024 Q3, down 0.1 pp from Q2.



SOURCES: INE and Banco de España.

- a Seasonally adjusted interest income and payment flows prior to the allocation of FISIM.
- **b** GDI is seasonally adjusted and excludes net interest income after the allocation of FISIM.



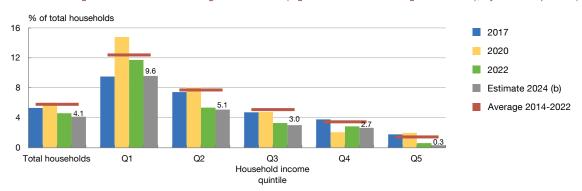
³ Variable-rate mortgages accounted for 56% of the total at the end of September 2024.

10 Households' financial vulnerability is at historically low levels

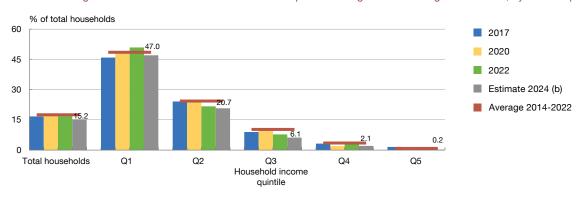
- So indicate both aggregate indicators (Box 2) and simulations conducted using the latest EFF (2022). The percentage of households with a high debt burden has fallen by 0.5 pp since 2022 to 4.1% in 2024,⁴ below the average for the period 2014-2022 (Chart 10.a). This decrease is widespread across income levels, but sharpest in the first income quintile, and was essentially due to growth in income and employment.
- The percentage of households that spend more than 70% of their income on essentials (including, in addition to debt servicing, food, utilities and rent of the main residence) also decreased relative to 2022, standing at 15.2% in 2024, below the average for the period 2014-2022 (Chart 10.b). Contributing factors included easing food inflation and lower utilities prices.

Chart 10

10.a Percentage of households with a high debt burden (higher than 40% of their gross income), by income quintile (a)



10.b Percentage of households with a ratio of essential expenditure to gross income higher than 70%, by income quintile (c)



SOURCE: Banco de España.

- a The debt burden is the ratio of debt payments (including interest and repayment) to gross household income.
- b Estimated drawing on the 2022 EFF. It is assumed that the change in the 12-month EURIBOR (average for the year) between 2022 and 2024, of 219 bp, is passed through in full to the cost of variable-rate debt and that the level of debt remains constant and equal to that in 2022. It is assumed that each household's income increases as observed in the National Accounts and is distributed by income quintile as per the Household Budget Survey.
- c Essential expenditure is defined as the sum of spending on food, utilities, rent of the main residence and debt servicing.
- d The same assumptions as in Chart 10.a are applied, adding the impact of inflation by updating the different expenditure components using the HICP. Between 2022 and 2024 food inflation ran at 15.6%, utilities inflation at -13.6% and rent inflation at 4.3%.



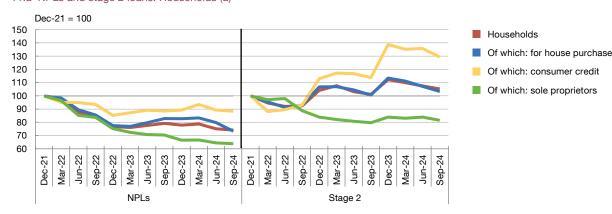
⁴ For indebted households it decreased by 0.6 pp to 7.4%.

11 Against this background, the credit quality of bank lending to households improved between March and September 2024

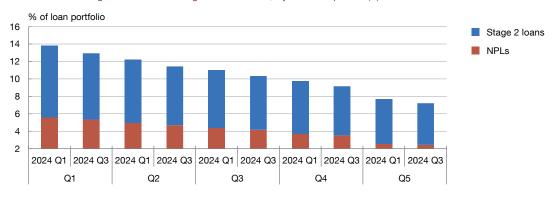
- The stock of troubled loans decreased by 4.8%⁵ between March and September 2024, due to the decline both in NPLs and in stage 2 loans⁶ (Chart 11.a). This decrease was widespread across portfolios and more pronounced in loans for house purchase.
- The troubled loan ratio stood at 9.1% in September, down 0.5 pp from March and 0.6 pp from end-2019. This reflects the decline in the NPL ratio (0.2 pp, to 3.1%) and the stage 2 ratio (0.3 pp, to 6%). There is a decreasing relationship between these ratios and household income (Chart 11.b). Between March and September 2024 the ratios fell across all income levels, doing so more sharply for households residing in lower income postcodes (especially the stage 2 ratio).

Chart 11

11.a NPLs and stage 2 loans. Households (a)



11.b NPL and stage 2 ratios in lending to households, by income quintile (b)



SOURCE: Banco de España.

- a Aggregate of deposit institutions and SLIs. 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 Prepared drawing on information from the CCR. Quintiles constructed drawing on the INE's postcode income data.

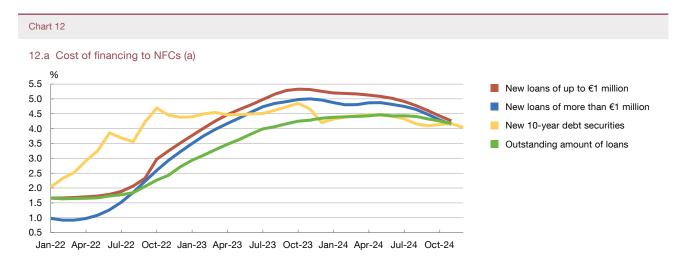


⁵ Around 3 pp of this fall was due to transfers off the balance sheet and write-offs by deposit institutions.

In September 2024 stage 2 loans accounted for 65.7% of all troubled loans.

12 Firms' borrowing costs continued to decrease in 2024 H2

- In line with the looser monetary policy stance, interest rates on new bank loans to firms continued to decline in 2024 H2 (Chart 12.a). Interest rates fell more on loans of up to €1 million (75 bp between June and November) than on loans of over €1 million (67 bp). Meanwhile, the cost of new ten-year debt security issuance decreased by 37 bp between mid-2024 and December, recording a cumulative fall of 81 bp since October 2023.
- The average cost of outstanding bank debt also started to reflect the decrease in interest rates, falling by 30 bp from its May 2024 peak to 4.2% in November. This cost remains at historically high levels, although, if the market's interest rate expectations bear out, it will continue to decrease over the coming months. Specifically, based on the simulations conducted using the CCR and the market's interest rate expectations in early January 2025, the cost of 64% of variable-rate loans to businesses will decrease by over 100 bp (compared to September 2024)⁷ in 2025 H1.



SOURCES: Bloomberg Data License and Banco de España.

a Latest data: November 2024 (bank financing) and December 2024 (debt securities). Bank rates are NDERs, i.e. they exclude related charges, such as payment protection insurance premiums and fees. The rates on new loans are adjusted seasonally and for the irregular component.



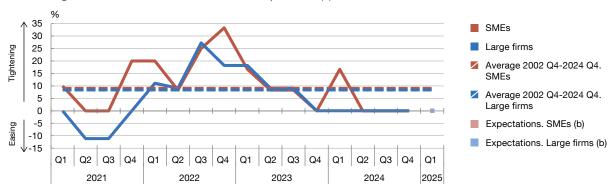
⁷ Variable-rate loans accounted for 70% of the total at the end of September 2024.

13 On the supply side, firms' access to bank credit improved slightly ...

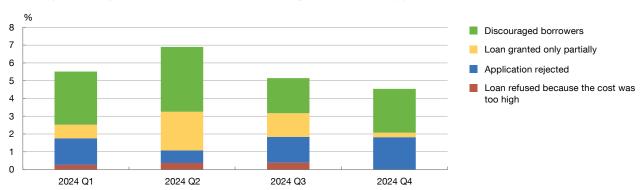
- According to the BLS, credit standards remained unchanged between October and December 2024 for both large firms – for the fifth consecutive quarter – and SMEs (Chart 13.a). Banks expect this stability to continue in 2025 Q1.
- Meanwhile, according to the SAFE, SMEs and large firms alike perceived an improvement in access to bank financing in Q4, thanks to favourable developments in their financial position and banks' greater willingness to lend.
- The SAFE also reveals a decline in the percentage of firms reporting difficulties in accessing bank lending in 2024 Q4 (Chart 13.b). This decrease is due to the reduction in the percentage of borrowers who obtained only part of the amount requested and loans refused because the cost was too high, which offset the increase in the proportion of discouraged borrowers (firms that did not apply for credit because they believed that it would not be granted) and rejected applications.

Chart 13

13.a Change in banks' credit standards for NFCs in Spain. BLS (a)



13.b Proportion of Spanish firms with difficulties in obtaining bank loans. SAFE (c)



SOURCE: ECB and Banco de España.

- a Percentage of banks reporting a tightening of credit standards less percentage of banks reporting an easing of credit standards.
- **b** The net percentage is zero for both SMEs and large firms.
- c As a percentage of firms for which bank loans are relevant, either because they have used bank financing in the past or because they are considering using it in the future. Discouraged borrowers are firms that did not apply for financing because they believed it would not be granted to them.

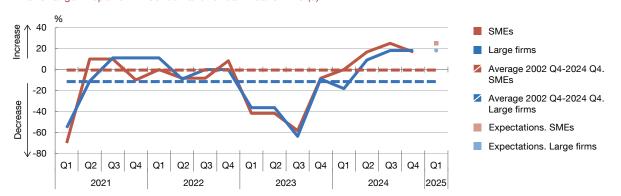


14 ... and on the demand side there was an increase in loan applications, although they remain low by historical standards

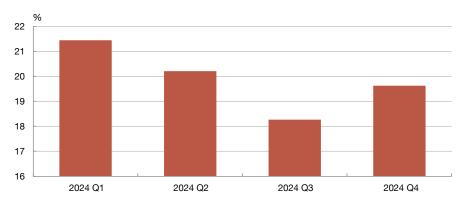
- According to the BLS, loan demand grew between October and December both in the SME segment and among large firms – for the third quarter running (Chart 14.a). Loan applications are expected to continue rising in 2025 Q1.
- Based on the responses of the banks surveyed, this higher demand is mainly due to the positive impact of lower interest rates, higher financing needs (for fixed investment and inventories and working capital) and reduced use of internal financing.
- Based on the sample of firms surveyed in the SAFE, there was also a slight increase in the percentage of firms applying for bank loans in 2024 Q4 (Chart 14.b). However, this percentage is still lower than that recorded in 2024 H1.

Chart 14

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



14.b Percentage of firms that have applied for bank loans in Spain. SAFE (b)



SOURCES: ECB and Banco de España.

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

b As a percentage of firms for which bank loans (including subsidised loans) are relevant. Firms are classified as such if they have used bank financing in the past or are considering using it in the future.

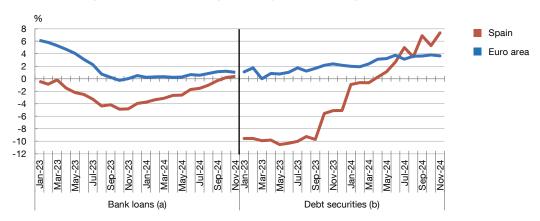


15 As a result, the financing obtained by Spanish firms gathered momentum

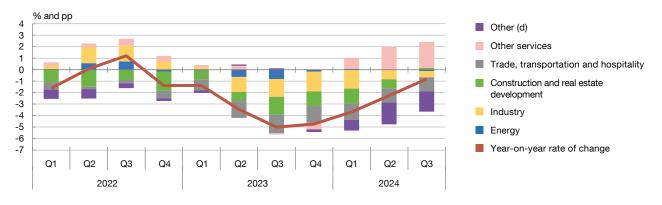
- New lending to firms remained somewhat buoyant in 2024 H2 and the outstanding amount stopped falling in year-on-year terms in October, approaching euro area growth rates. The funds raised via debt securities, which account for around 20% of firms' debt, recovered more forcefully, with year-on-year growth rates of more than 7% (Chart 15.a).
- The sectoral breakdown of bank lending⁸ shows that the outstanding amount in services, excluding trade, transportation and hospitality, has been rising in year-on-year terms since the start of 2024. Lending for construction and real estate development began to increase, in year-on-year terms, in 2024 Q3. In the remaining sectors it continued to decline year-on-year, albeit at an increasingly slower rate since end-2023 (Chart 15.b).

Chart 15

15.a Outstanding amount of NFC financing. Year-on-year rate of change



15.b Outstanding amount of NFC financing. Year-on-year rate of change and contributions, by sector (c)



SOURCES: ECB and Banco de España.

- a Securitisation adjusted data.
- **b** The data for Spain include issuances by non-resident subsidiaries, unlike the euro area data, which do not (they do include issuances within the euro area when the parent and subsidiary reside in different countries).
- c Calculated in terms of outstanding amounts, which means they are affected by reclassifications and write-offs.
- d Includes agriculture and fishing and securitised and unclassified loans.



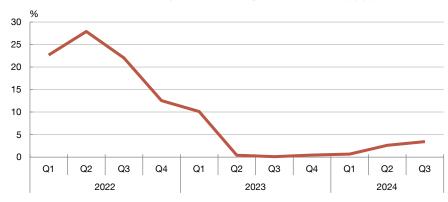
⁸ These year-on-year changes are affected by reclassifications and write-offs, as there is no information on net flows by purpose. They are different from those in Chart 15.a, which are calculated as the net flow divided by the stock at the start of the period and only include net transactions.

16 Turnover accelerated between July and September in year-on-year terms ...

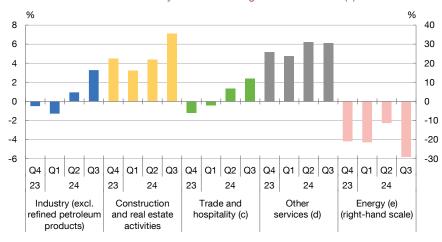
- Nominal turnover increased by 3.4% year-on-year in 2024 Q3, according to the combined information of the Spanish tax revenue service and the CBQ (Chart 16.a). This growth rate is slightly higher than in previous quarters.
- Turnover rose in all economic sectors except energy, which, as in previous quarters, continued to be dragged down by the decline in selling prices (Chart 16.b). In the remaining sectors, turnover grew at a similar or faster pace than in previous quarters, with construction and real estate activities and the "other services" group recording the highest increases.
- Meanwhile, the EBAE suggests that firms' turnover also performed well in 2024 Q4, albeit with notable crosssector heterogeneity, as usual.

Chart 16

16.a Turnover of NFCs. Year-on-year rate of change. AEAT and CBQ (a) (b)



16.b Turnover of NFCs. Year-on-year rate of change. AEAT and CBQ (a)



SOURCES: AEAT (VESGEP) and Banco de España.

- a AEAT data adjusted for the calendar effect, except for electricity, gas, steam and air-conditioning supply, and for coke and refined petroleum products, which come from the CBQ (whose coverage of these sectors is very high).
- b The following sectors are not included: education, health, public administration and financial and insurance activities.
- c The low turnover growth rates in this category are mainly explained by firms in the trade sector.
- d Includes transportation and storage; information and communication; social, cultural, recreational and other services; and other services for production.
- e Includes mining and quarrying, and electricity, gas and water.

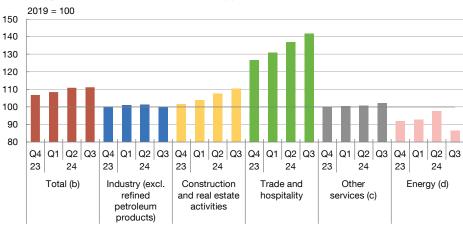


17 ... while profit margins remained virtually unchanged, although there are significant sectoral differences

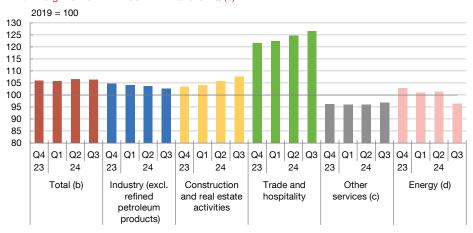
- The margin on sales increased slightly for firms overall (Chart 17.a), while the margin on GVA decreased slightly (Chart 17.b). In this vein, National Accounts data also show a slight decline in GOS as a percentage of GVA in the market economy.
- Both the margin on sales and the margin on GVA increased in construction and real estate activities, in trade and
 hospitality, and, more moderately, in other services. By contrast, they fell in the energy sector and, albeit only
 slightly, in the industrial sector (excluding refined petroleum products), where production and wage costs rose
 more than turnover.

Chart 17

17.a Margin on sales. NFCs. AEAT and CBQ (a)



17.b Margin on GVA. NFCs. AEAT and CBQ (e)



SOURCES: AEAT (Observatorio de Márgenes Empresariales) and Banco de España.

- a Defined as GOP (calculated as Turnover Procurements Wages) / Turnover. Four-quarter moving sum.
- b The following sectors are not included: education, health, public administration, recreation, financial and insurance activities and other services. AEAT data, except for electricity, gas, steam and air-conditioning supply; coke and refined petroleum products; and wholesale of solid, liquid and gaseous fuels and related products, which come from the CBQ.
- c includes transportation and storage; information and communication; professional, scientific and technical activities; and administrative and support service activities.
- d Includes mining and quarrying, and electricity, gas and water.
- e Defined as GOP (Turnover Procurements Wages) / GVA (Turnover Procurements). Four-quarter moving sum.

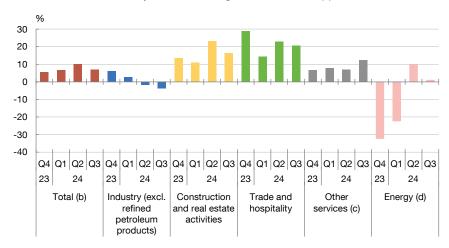


Gross operating profit continued to grow robustly across almost all sectors

- Nominal GOP increased between July and September 2024 by 6.9% year-on-year, less than in the previous quarter (Chart 18.a). This increase was seen across practically all sectors, with particularly strong growth in trade and hospitality (21%) and construction and real estate activities (16%). The only sector covered by this report where GOP declined was industry (excluding refined petroleum products), which saw a drop of nearly 4% driven by narrowing margins.
- According to the CBQ, in 2024 financial costs continued to weigh on ONP growth, but increasingly less so. The contribution of GOP between July and September was negative due to the refined petroleum products and energy sectors, 9 whose earnings were affected by shrinking margins. As a result, CBQ firms' ONP fell by 19.4% year-on-year and by 3% in the first three quarters of 2024, although it would have increased by 6.5% in that period if the energy and refined petroleum products sectors were excluded.

Chart 18

18.a GOP. NFCs. Year-on-year rate of change. AEAT and CBQ (a)



SOURCES: AEAT (Observatorio de Márgenes Empresariales) and Banco de España.

- a GOP is calculated as Turnover Procurements Wages. Calendar effect adjusted.
- The following sectors are not included: education, health, public administration, recreation, financial and insurance activities and other services. AEAT data, except for electricity, gas, steam and air-conditioning supply; coke and refined petroleum products; and wholesale of solid, liquid and gaseous fuels and related products, which come from the CBQ.
- c Includes transportation and storage; information and communication; professional, scientific and technical activities; and administrative and support service activities
- d Includes mining and quarrying, and electricity, gas and water.



These sectors account for a very large share of the CBQ firm sample (see Annex 1).

The profitability and liquidity buffers of firms in the Central Balance Sheet Data Office Quarterly Survey sample remained stable, on average, in 2024

- The return on equity of CBQ firms stood at 11.2% in the first three quarters of 2024, 0.1 pp less than in the same period in 2023 (Chart 19.a). The breakdown by sector shows uneven developments. There was a drop in the industrial sector with falls in most of its sub-sectors, which were particularly sharp for the refined petroleum products sub-sector. In contrast, other sectors (energy, trade and hospitality, and information and communication) saw levels holding at or above the previous year's levels.
- CBQ firms' average liquidity held stable between January and September 2024 and slightly above 2019 levels. In general, minor variations can be observed across sectors, with the only notable change being a slight increase in the industrial sector (Chart 19.b).

Chart 19 19.a Return on equity of NFCs. CBQ (a) (b) 25 Total (c) 20 Energy Industry 15 Trade and hospitality 10 Information and communication 5 0 -5 2019 Q1-Q3 2020 Q1-Q3 2021 Q1-Q3 2022 Q1-Q3 2023 Q1-Q3 2024 Q1-Q3 19.b Liquidity ratio of NFCs. CBQ (b) (d) 10 Total (c) 9 Energy 8 7 Industry 6 Trade and hospitality 5 Information and communication 4 3 2 1 0 2019 2020 2021 2022 2023 2024 Q3

SOURCE: Banco de España.

- a Ratio defined as ONP / Own funds.
- **b** Holding companies are excluded.
- c In addition to the sectors shown in the chart, the total includes transportation and storage, activities with limited coverage (for example, construction) and other services
- d Ratio defined as Cash and cash equivalents / Total assets.

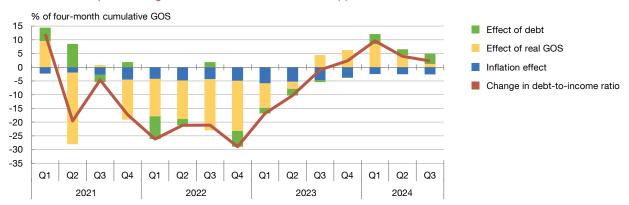


20 The debt-to-operating surplus ratio rose again in 2024 Q3, although it remains at record-low levels ...

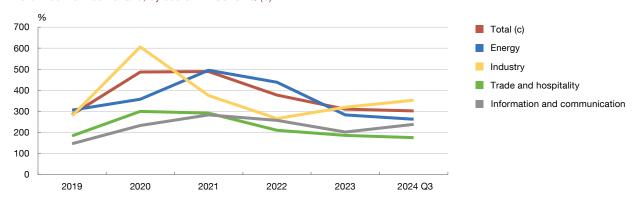
- For firms as a whole, debt rose faster than nominal income in 2024 Q3, slightly pushing up the ratio of debt to GOS again, to 332% (Chart 20.a). However, in terms of GDP, the ratio continued to decline, to 64.8%, a level not seen since 2002 and 4.1 pp lower than the euro area average.
- The average ratio of debt to ordinary profit (GOP plus financial revenue) for CBQ firms remained stable between January and September, relative to the average level in 2023 (Chart 20.b), because the small increase in debt was similar to the growth in ordinary profit. By sector, a slight increase in this ratio was observed in the industrial sector (and in practically all its sub-sectors) and in the information and communication sector, along with moderate declines in the energy and the trade and hospitality sectors.

Chart 20

20.a Quarter-on-quarter change in the debt-to-income ratio. NFCs (a)



20.b Debt-to-income ratio, by sector. NFCs. CBQ (b)



SOURCES: INE and Banco de España.

- a Balance of seasonally adjusted outstanding debt. Excluding loans between NFCs resident in Spain.
- b Interest-bearing borrowing / (GOP + Financial revenue). The numerator is the balance of the debt held at the end of Q3 and the denominator is the four-quarter accumulated profit. Holding companies are excluded.
- c In addition to the sectors shown in the chart, the total includes transportation and storage, activities with limited coverage (for example, construction) and other services.

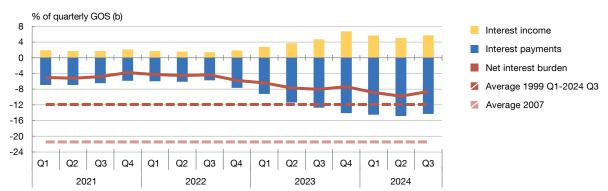


21 ... while the net interest burden relative to profits fell

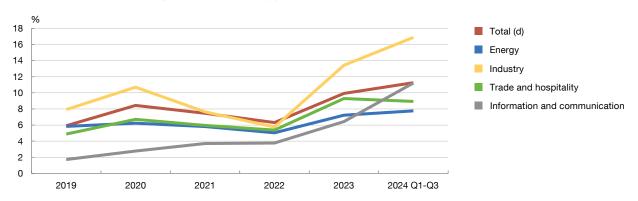
- The net interest burden on the corporate sector, in GOS terms, fell in 2024 Q3 to 9.4%, 4.5 pp below its post-1999 average and 17.9 pp less than the peak reached in 2007 (Chart 21.a). This decline reflected a drop in interest payments, which had not happened since December 2021, and growth in interest income, both in absolute terms and relative to GOS.
- CBQ data show that in most sectors the average gross debt burden ratio (the ratio of interest expenses to ordinary profit) in the first three quarters of 2024 was higher than the average for the previous year (Chart 21.b). The rise in the industrial sector, which affected most industrial sub-sectors, was particularly sharp, exacerbated by both the increase in financial costs and the drop in ordinary profits. In contrast, this ratio dropped in the trade and hospitality sector, buoyed as it was by strong profits.

Chart 21

21.a NFCs' net interest burden (a)



21.b Gross financial burden, by sector. NFCs. CBQ (c)



SOURCES: INE and Banco de España.

- a Seasonally adjusted interest income and payment flows prior to the allocation of FISIM.
- **b** GOS excludes net interest income prior to the allocation of FISIM.
- ${\bf c} \ \ {\sf Interest} \ {\sf on} \ {\sf borrowed} \ {\sf funds} \ {\it /} \ ({\sf GOP} \ + \ {\sf Financial} \ {\sf revenue}). \ {\sf Holding} \ {\sf companies} \ {\sf are} \ {\sf excluded}.$
- d In addition to the sectors shown in the chart, the total includes transportation and storage, activities with limited coverage (for example, construction) and other services, which can lead to the total levels of some indicators being higher than the sum of the sectors depicted.

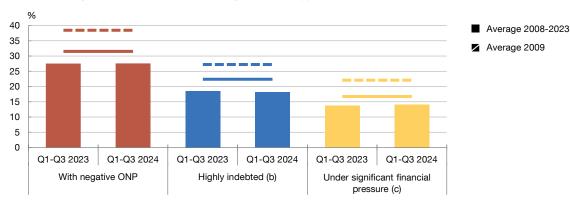


22 The percentage of vulnerable firms held stable and remains at a moderate level from a historical standpoint

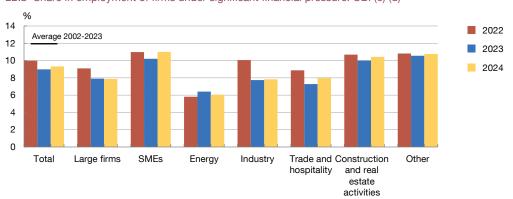
- In the first three quarters of 2024, 27% of CBQ firms had negative ONP, 18% were under significant financial pressure and 14% were highly indebted. These levels are very similar to those seen in the same period in 2023 (Chart 22.a). In any event, they are below the average for 2008 to 2023.
- Estimations drawing on the CBI (with a larger and more representative sample) suggest that employment rose somewhat among firms under significant financial pressure, although this indicator is below its historical average.
 By size, this uptick was driven by SMEs (Chart 22.b). By sector, the share of employment in vulnerable firms rose slightly in the trade and hospitality sector, with other sectors experiencing only minor fluctuations.

Chart 22

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



22.b Share in employment of firms under significant financial pressure. CBI (c) (d)



SOURCE: Banco de España.

- a Holding companies are excluded.
- b Firms are understood to be highly indebted when their ratio of net financial debt to (GOP + Financial revenue) is higher than 10, or they have positive net financial debt and zero or negative earnings. Net financial debt is defined as interest-bearing borrowing less cash and cash equivalents.
- c Firms whose earnings do not cover their interest expenses.
- d The data for 2023 are the result of applying the change in the share in employment of vulnerable firms, calculated using a common sample of firms, to the data for 2022. Data for 2024 are estimated using a sub-sample of firms for which information is available in the CCR or, if such information is not available, by imputing them on the basis of firms operating in the same province and sector (two-digit NACE Rev. 2 level) and of a similar size for which such information is available. The financial costs of each firm are proxied drawing on the average interest rates in 2024 and the average balances of interest-bearing debt. It is assumed that the interest-bearing debt will reflect changes in each firm's bank loans, according to the CCR. It is assumed that the change in GOP is equal to that observed using AEAT data by NACE section or CBQ data, if it contains data on a firm. Holding companies, head offices and dormant firms are excluded, as are firms with misreported data concerning employment, financial costs or interest-bearing debt.

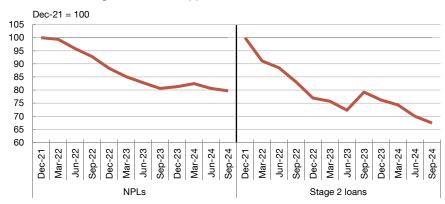


The credit quality of loans to non-financial corporations continued to improve ...

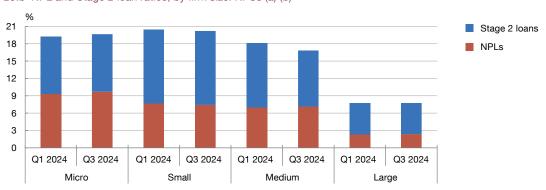
- Troubled loans fell by 7.4%¹⁰ between March and September 2024. This decrease came mainly on the back of the fall in Stage 2 loans, which accounted for 67% of the balance of troubled loans in September 2024, as well as the drop in NPLs, which resumed their decline following the slight uptick in early 2024 (Chart 24.a).
- The troubled loans ratio stood at 13.2% in September, 1 pp lower than in March (7 pp below the end-2019 levels). This fall was owing to the reduction in the Stage 2 ratio (down 0.9 pp to 8.8%) and, less so, the NPL ratio (down 0.1 pp to 4.3%). At 7.7%, the troubled loans ratio among large firms is significantly lower than among other firms (Chart 24.b). In the 12 months to September 2024, the NPL ratio remained relatively stable across all business segments, while the Stage 2 loan ratio fell somewhat among medium-sized firms (by 1 pp).

Chart 23

23.a NPLs and Stage 2 loans. NFCs (a)



23.b NPL and Stage 2 loan ratios, by firm size. NFCs (a) (b)



SOURCE: Banco de España.

a Aggregate of deposit institutions and SLIs. 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. Loans are classified as Stage 2 when their credit risk has increased significantly since initial recognition and generally include those with amounts more than 30 days past due. The data in Chart 23.a are drawn from the amounts in portfolios belonging to banks and specialised lending institutions. The data in Chart 23.b are drawn from the CCR.

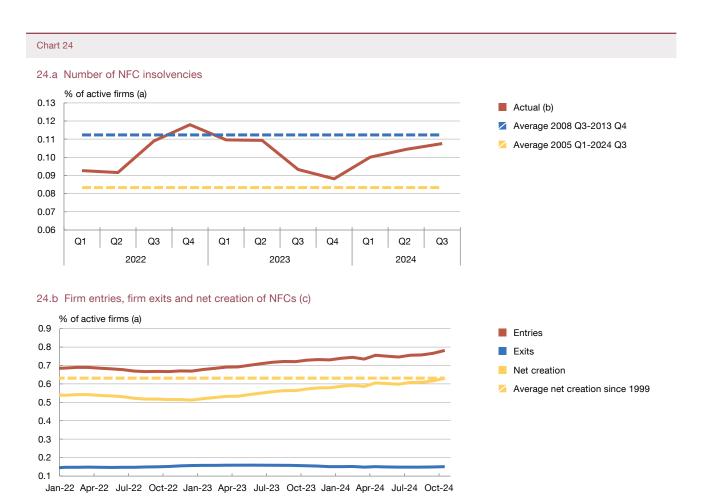


b The ratios are calculated with respect to the total amount of loans in each particular portfolio, according to firm size.

¹⁰ Around 2.9 pp of this fall was the result of loans being transferred off the balance sheet and written off by deposit institutions.

24 ... while insolvencies held at low levels compared with most other European countries

- The number of NFC insolvencies (on a four-quarter moving average basis) increased in the second and third quarters of 2024 (Chart 25.a). The insolvency rate (as a percentage of active firms) stood at 0.11%, which, while close to the figure observed during the global financial crisis, is still well below that in most other European countries. This change is mostly owing to the new special insolvency procedure being more attractive to microfirms, as it is less costly and faster than the general procedure. This new procedure has become increasingly popular since it was first introduced on 1 January 2023.
- Meanwhile, although business entries have continued to rise in recent months, the number of exits has barely changed (Chart 25.b). In consequence, net business creation has remained robust, standing at 0.63% of active firms in October 2024, a level similar to its average since 1999.



SOURCES: INE and Colegio de Registradores.

- a The figure for total active firms is drawn from the DIRCE and is the sum of (i) public limited companies, (ii) private limited companies, (iii) general partnerships, (iv) limited partnerships, (v) joint ownership and (vi) cooperative societies.
- **b** Four quarter moving averages. Shown as a percentage of the average active firms since 2022.
- c Latest figure: October 2024. 12-month moving averages. The series of firm entries, firm exits and net creation (entries less exits) is shown as a percentage of the number of active firms at 1 January of each year.



THE IMPACT OF COST OF DEBT DEVELOPMENTS ON INVESTMENT BY SPANISH FIRMS

Miguel García-Posada and Laura Domínguez Zabalza

The negative relationship between business investment and the cost of borrowing is well documented in both macroeconomic and financial research.¹ This box uses granular data from the Banco de España's Central Balance Sheet Data Office integrated database (CBI)² to analyse the relationship between corporate investment and the average cost of outstanding debt, and how this relationship varies depending on firms' characteristics, such as liquidity and capitalisation.

Chart 1 shows overall investment (tangible gross fixed capital formation and investment property, in real terms) and cost of outstanding debt (ratio of financial costs to interest-bearing borrowing) developments for firms in the CBI sample from 2018 to 2023. Between 2022 and 2023 investment declined by 3.6%, while the average cost of outstanding debt rose by 1.5 percentage points (pp).³ Conversely, between 2021 and 2022 investment increased by 17.2% and the average cost of outstanding debt rose by only 0.2 pp.

Chart 2 shows the distribution of the cost of debt for firms⁴ in 2023, when policy interest rates reached their peak in the latest tightening cycle, and 2021, before the cycle began. This chart shows that the cost of debt not only increased in aggregate terms, but that it did so across the board, as the distribution of this variable shifted to the right between 2021 and 2023. The rise in the cost of outstanding debt for each firm was primarily driven by its pre-existing funding structure. Firms with short-term or variable-rate long-term loans experienced a greater

increase, as their borrowing conditions are renewed earlier.

To assess the impact of a change in the cost of outstanding debt on business investment, two linear regression models are estimated using the CBI firm sample for the period 2021-23. In both models, the dependent variable is the ratio of investment in tangible fixed assets to total assets at each firm, and the explanatory variable of interest is the average cost of outstanding debt at all other firms within the same sector-province-size-year group.⁵ The first model allows the marginal effect of the variable of interest to vary across firms, depending on whether they have high or low capital while the second allows that marginal effect to vary across firms with high or low liquidity. A firm is considered to be highly capitalised if the ratio of own funds to total assets is greater than or equal to the median of that ratio in both 2022 and 2023; otherwise, it is considered to have low capital. Likewise, a firm is considered to have high liquidity if the ratio of liquid assets to total assets is greater than or equal to the median of that ratio in both 2022 and 2023; otherwise, it is considered to have low liquidity. Both regressions include firm characteristics as controls.6

The results of the estimation show that changes in the cost of debt have a greater impact on the investment ratio of less capitalised firms and those with lower liquidity ratios. Poorly capitalised firms (i.e. highly-leveraged firms) are more vulnerable to interest rate changes, as any given change in the cost of debt will result in a greater change in

¹ For example, for Spain, see Pablo Aguilar, Corinna Ghirelli and Blanca Jiménez-García. (2023). "Recent changes in investment in Spain from a macroeconomic perspective". Economic Bulletin - Banco de España, 2023/Q3, 03.

² Various filters are applied to ensure comparability between the different firms in the sample. For example, holding companies, listed companies, and those for which no information about their sector is available are excluded. Firms whose aim is not profit maximisation (e.g. state-owned enterprises), dormant firms and firms in the process of being wound up or subject to insolvency proceedings are also excluded.

³ The Banco de España Business Activity Survey (EBAE) for 2023 Q4 shows that the increase in financial costs was one of the factors that most hindered business activity (for 39.3% of firms), while the difficulty in accessing external finance had a much milder impact (affecting only 22% of firms). See Alejandro Fernández Cerezo and Mario Izquierdo. (2024). "Banco de España Business Activity Survey: 2023 Q4". Economic Bulletin - Banco de España, 2023/Q4, 07.

⁴ Kernel density estimation of that variable. Firms with no financial costs are excluded from this estimation, as they could distort the comparison between 2021 and 2023 and because they are also excluded from the subsequent regression exercises.

This approach is inspired by the methodology used in Raghuram G. Rajan and Luigi Zingales. (1998). "Financial Dependence and Growth". The American Economic Review, 88(3), pp. 559-586. The main reason for using the average cost of debt of similar firms, rather than that of the firm itself, is to avoid endogeneity issues arising from the possible correlation between each firms' investment opportunities, the cost of its debt and its propensity to invest, which could lead to biased estimates. Moreover, the correlation between that cost and a firm's financial position (leverage, liquidity, etc.) could give rise to multicollinearity issues. Also, as there can be a spurious correlation between a firm's financial costs-to-debt ratio and other indicators of its financial position (such as its capital or liquid asset holdings) due to the omission of a relevant factor, it is advisable to use the average financial costs-to-debt ratio of similar firms as the explanatory variable of interest.

⁶ For a description of the control variables used, see note e in Chart 4. The controls' coefficient estimates have the expected sign. For example, there is a positive relationship between the return on assets (ROA) and investment, which is consistent with the findings in Sergio Puente and Maristela Mulino. (2024). "A first approximation of the firm-level relationship between profit margins and business investment in the Spanish economy". *Economic Bulletin - Banco de España*, 2024/Q4, 04, which documents a positive relationship between profit margins and investment for most Spanish firms.

Box 1 THE IMPACT OF COST OF DEBT DEVELOPMENTS ON INVESTMENT BY SPANISH FIRMS (cont'd)

Chart 1 Cost of debt and investment in tangible fixed assets (a)

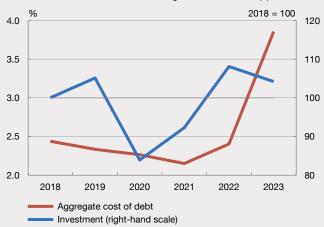


Chart 2 Distribution of the cost of debt in recent years (b)

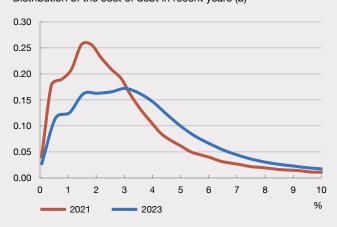


Chart 3
Distribution of the change in the cost of debt and the liquidity and capital ratios

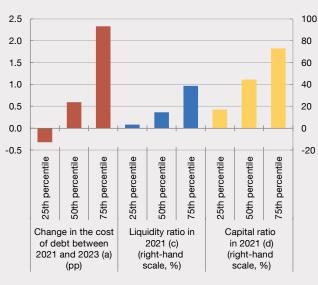
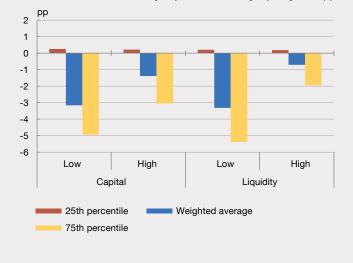


Chart 4
Economic effects of the cost of corporate financing on the ratio of investment to total assets, by capital ratio and by liquidity ratio (e)



SOURCE: Banco de España.

- a The cost of outstanding debt is calculated as Financial costs / Average interest-bearing borrowing. Investment refers to tangible gross fixed capital formation and investment property in real terms.
- **b** Kernel density estimation of the cost of debt. Firms with no financial costs are excluded.
- c The liquidity ratio is calculated as Cash and cash equivalents / Total assets.
- d The capital ratio is calculated as Own funds / Total assets.
- e Effects obtained from an estimation of two linear regression models, using a sample of Spanish firms in the period 2021-23. In both models, the dependent variable is the ratio of investment in tangible fixed assets to total assets, while the explanatory variable of interest is the arithmetic mean of the ratio of financial costs to interest-bearing debt at all other firms within the same sector-province-size-year group. The first model allows the marginal effect of the variable of interest to vary across firms with high or low capital, while the second allows that marginal effect to vary across firms with high or low liquidity. A firm is considered to be highly capitalised if the ratio of own funds to total assets is greater than or equal to the median of that ratio in both 2022 and 2023; otherwise, it is considered to have low capital. Likewise, a firm is considered to have high liquidity if the ratio of liquid assets to total assets is greater than or equal to the median of that ratio in both 2022 and 2023; otherwise, it is considered to have low liquidity. In both cases, the following firm characteristics are included as controls with a one-year lag: the logarithm of total assets, the logarithm of age and the square of that variable, the turnover-to-total assets ratio, ROA, bank debt as a proportion of total liabilities and binary variables that indicate whether the firm is highly capitalised, whether it has high liquidity, whether it belongs to a business group, whether it has bank debt and whether it has negative equity, as well as binary variables indicating its legal form. Lastly, sector-year, province-year and size-year fixed effects are introduced, where sector corresponds to the four-digit NACE Rev. 2 classification and size corresponds to the following firm categories: micro, small, medium and large. The economic effects are calculated, for each type of firm (e.g. highly-capitalised ones), by multiplying the corresponding marginal effect by the increase from 2021 to 2023 in the cost of these firms' outstanding debt. This increase is obtained as: (i) the average change weighted by the volume of debt; (ii) the 25th percentile of the distribution of those changes; and (iii) the 75th percentile. These products are then expressed as a percentage of the weighted average of the ratio of investment to total assets in 2022-23, where the weights correspond to each firm's total assets.

THE IMPACT OF COST OF DEBT DEVELOPMENTS ON INVESTMENT BY SPANISH FIRMS (cont'd)

the debt burden at these firms than at firms with lower leverage. Moreover, firms with significant liquid asset holdings can use these assets to finance their current liabilities (short-term debt and obligations), allowing them to allocate other funds (both own funds and retained earnings) to new investment projects.

Chart 3 shows that, prior to the monetary policy tightening, there was a high dispersion in capital and liquidity ratios. It also highlights that the change in the cost of debt between 2021 and 2023 was very uneven.⁷ Therefore, firms' financial situation and cost of financing changes are both key sources of heterogeneity in the impact of monetary policy tightening on firms' investment decisions.

The economic effects of the increase in the cost of outstanding debt on business investment are calculated for each firm type (e.g. highly capitalised firms) by multiplying the corresponding estimated marginal effect⁸ by the increase observed between 2021 and 2023 in the cost of its outstanding debt. This increase is obtained for each of the four firm types in three different ways (to reflect both the average increase and relatively extreme cases) as: (i) the average change weighted by each firm's debt, (ii) the 25th percentile of the cost increase distribution, and (iii) the 75th percentile of that distribution. These are then divided by the weighted average of the ratio of investment to total assets in 2022-23 for each firm type (where the weights correspond to each firm's total assets) and expressed as percentages.

Chart 4 shows these economic effects. During the recent period of monetary policy tightening, all groups of firms showed a negative relationship between the change in the cost of debt and investment. This effect is substantially reduced for highly capitalised firms and those with high liquidity, which suggests that high capital and liquidity mitigated the adverse impact of rising debt costs on business investment. Taking the weighted average change in the cost of debt in 2021-23, the investment ratio fell by

3.2 pp among firms with low capital, but by just 1.4 pp among highly capitalised firms. Likewise, the investment ratio of firms with low liquidity fell by 3.3 pp, while the drop among firms with high liquidity was just 0.7 pp. In a more adverse situation, where the increase in the cost of debt is that equivalent to the 75th percentile, the investment ratio decreased by 4.9 pp for poorly capitalised firms, but by 3 pp for highly capitalised firms.

To approximate the macroeconomic effects of the rising cost of debt, the contribution of the cost of debt increase between 2021 and 2023 to the drop in investment in 2023 relative to that seen in 2021 is estimated based on the previous results. First, the falls in investment in 2021-23 owing to the increases in each firm's cost of debt are calculated, differentiating between firm types. The drops for each firm type are then aggregated and divided by the overall investment in 2021. The outcome shows that the fall in investment in 2021-23 owing to the increase in the cost of debt represented 16.4% of investment in 2021, when firms are classified by their capital ratios. 10 These figures are consistent with simulations carried out using the Quarterly Macroeconometric Model of the Banco de España (MTBE by its Spanish initialism), which estimate that 16.7% of the drop in private productive investment can be attributed to the post-2022 monetary policy tightening.11

However, the adverse effect of the rise in the cost of debt on investment appears to have been mitigated by the improvement in the financial position of Spanish firms since the global financial crisis. The average capital ratio of firms in 2008 was 24.7%, but stood at 39.9% in 2022-23. Likewise, the average liquidity ratio in 2008 was 16.1%, while it was 24.4% in 2022-23. Focusing the analysis on the mitigating effect of capital and using the earlier estimations, it can be seen that, with the 2008 business capital ratios, an increase in the cost of debt equal to that seen in 2021-23 would have entailed larger

⁷ Although this chart shows that the 25th percentile of this variable is negative (indicating that 25% of firms saw a reduction in their cost of debt between 2021 and 2023), its value is very small (around -0.3 pp). This could be due to factors such as the maturity of debt obtained at high interest rates.

⁸ For example, the marginal effect for poorly capitalised firms is the coefficient of the average cost of debt of similar firms, while for highly capitalised firms it is the sum of this coefficient and the coefficient of the interaction between that variable and the binary variable denoting high capitalisation.

⁹ These falls are calculated as the product of the corresponding marginal effects (for each firm type) and the increase in the cost of debt for each firm between 2021 and 2023.

¹⁰ This figure rises to 18.1% when firms are classified by their liquidity ratios.

¹¹ The sum of the dynamic effects in 2022-24 associated with the interest rate rises in 2022-23. This exercise has been carried out by updating the results presented in the Banco de España's *Annual Report 2022*. See Banco de España. (2023). *Annual Report 2022*, and Ana Arencibia, Samuel Hurtado, Mercedes de Luis López and Eva Ortega. (2017). "New version of the Quarterly Model of Banco de España (MTBE)", Occasional Paper, 1709, Banco de España.

THE IMPACT OF COST OF DEBT DEVELOPMENTS ON INVESTMENT BY SPANISH FIRMS (cont'd)

drops in investment (20.2% compared with the aforementioned decline of 16.4%). The results are similar when accounting for the mitigating effect of the improvement in the liquidity situation.

Lastly, the results of previous estimations can also be used to approximate the potential impact on investment of a fall in firms' cost of debt as a result of the reduction in policy interest rates seen in recent months, which markets anticipate will continue in the coming months. A similar process to those mentioned earlier is performed to approximate these effects. Given that firms' balance sheets for 2024 and 2025 are not available, each firm's

cost of debt is proxied using data from the Central Credit Register of the Banco de España and the expected path of credit market reference interest rates. ¹² Turning to the analysis on capital, the results show that the increase in investment owing to the expected fall in the cost of debt between December 2023 and June 2025 represented 6.5% of investment in 2023, with very similar findings when classifying firms by liquidity situation. The effect is again expected to be heterogeneous – greater among firms with low liquidity and capital ratios and among those that are more exposed to variations in the cost of debt owing to having short average maturities and a predominance of variable-rate loans.

Boxes

¹² The implicit assumption of this calculation is that the change in the average interest rate of all a firm's interest-bearing borrowing is the same as the interest rate on bank debt, which is reasonable for most Spanish firms, which are typically small and do not raise external funding by issuing debt or other instruments. For more details, see Banco de España. (2023). "Box 1. Monetary policy transmission to interest payments on the bank debt of households and firms". Report on the financial situation of households and firms. Second half of 2023, pp. 25-28.

A COMPOSITE INDICATOR OF AGGREGATE HOUSEHOLD FINANCIAL VULNERABILITY

Fernando Nieto and Javier Martín

This box presents a composite indicator of Spanish households' aggregate financial vulnerability, combining five key dimensions commonly used to measure the sector's overall financial soundness. Specifically, the indicator, which follows the approach used by the European Central Bank (ECB), 1 is constructed as the arithmetic mean of the following five sub-indicators:

- 1 Debt servicing capacity: calculated based on the gross interest payments-to-income ratio,² the saving ratio and expectations of personal financial situation over the next 12 months.
- 2 Leverage: calculated based on households' gross debt-to-income and gross debt-to-total assets ratios.
- 3 Financing:³ calculated based on the interest rate on households' outstanding amount of bank loans and the credit impulse, measured as the annual change in net credit flows as a share of GDP. The credit impulse captures the positive impact that financing flows to the private sector have on economic activity, meaning a positive value helps to reduce vulnerability.
- 4 *Income:* calculated based on households' real income growth and the income-to-GDP ratio.
- 5 Labour activity: calculated based on the labour force participation rate⁴ and unemployment expectations.⁵

Each of these sub-indicators is, in turn, a simple arithmetic mean of the individual indicators. Each indicator is first standardised against a reference period, meaning they are converted into a common scale with a mean of zero and a standard deviation of one. Therefore, the value of each indicator is a z-score that captures the number of standard deviations that an observation is above or below the average for the reference period. All variables are included with a sign whereby positive (negative) values can be interpreted as a higher (lower) degree of vulnerability with respect to the reference period.

Chart 1 depicts changes in the indicator and its components in Spain in the period 2005-2024, along with

the contributions from its components. Since 2015 the financial situation of Spanish households has, in aggregate terms, been relatively favourable compared to the reference period average. This essentially owes to the significant deleveraging that has taken place, aided by low borrowing costs until 2022 and an improving labour market, except during the worst phase of the pandemic in 2020. Against this backdrop, real incomes and, more recently, saving have also helped to keep the vulnerability indicator down.

Chart 2 compares the recent situation in Spain with that of the euro area. In 2024 Q3 (latest data available) the financial vulnerability indicator stood very close to 20-year lows in both Spain and the euro area. Deleveraging has played a key role in both cases, with the sub-indicator for this dimension at lows for the period under review. The indicator measuring debt servicing capacity is also at reduced levels (around the 10th percentile of the distribution), as rising income and higher saving have offset the impact of higher interest payments caused by the monetary tightening between 2022 and 2023. For Spain, the only indicator standing above (albeit only slightly) its historical average is financing. This reflects the increase in interest rates on the outstanding amount of loans to households, which has been more pronounced in Spain than in the euro area due to the greater prevalence of variable-rate loans. Similarly, thanks to declining unemployment the labour activity indicator is also at reduced levels, indicating a low degree of vulnerability.

The composite indicator of aggregate household financial vulnerability and GDP growth show a strong negative correlation of -0.6 in contemporaneous terms and -0.7 on the three-quarter lagged indicator (Chart 3). Moreover, there is also a high level of synchrony between the indicator and consumer confidence and the credit quality of total bank loans to households (Chart 4). The correlation with consumer confidence is 0.6 both in contemporaneous terms and with a lead of one quarter. For credit quality the correlation is higher, at 0.8 in contemporaneous terms.

¹ See the ECB Financial Stability Review of November 2023 and November 2024. For more details on the construction of the index, see a similar analysis for non-financial corporations in Sándor Gardó, Benjamin Klaus, Mika Tujula and Jonas Wendelborned. (2020). "Box 1. Assessing corporate vulnerabilities in the euro area". In European Central Bank, *Financial Stability Review*.

² Strictly speaking, the debt burden should include principal repayments.

³ Unlike the ECB indicator, the short-term debt-to-long-term debt ratio and the current financial assets-to-current liabilities ratio are not included, since in Spain's case these variables are influenced by pension advances.

⁴ The ratio of the labour force (employed and unemployed people) to the working-age population.

⁵ Net balance of positive and negative responses to the question "How do you expect the number of people unemployed in this country to change over the next 12 months?" from the European Commission's consumer survey.

A COMPOSITE INDICATOR OF AGGREGATE HOUSEHOLD FINANCIAL VULNERABILITY (cont'd)

These results suggest that the indicator is highly influenced by the economic cycle, tending to show more favourable values during expansionary phases. However, in addition to these cyclical factors, the indicator also captures financial imbalances. During periods of strong economic growth coupled with a build-up of financial imbalances the indicator can present values consistent with a high degree of vulnerability. For instance, as Chart 1 illustrates, in the years leading up to the 2008 global financial crisis the indicator tended to show a significant increase in

Chart 1 Composite indicator of household financial vulnerability (a)

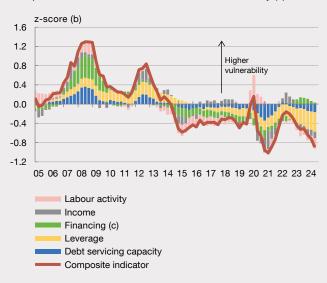


Chart 2 Distribution over time of indicator components: 2005-2024

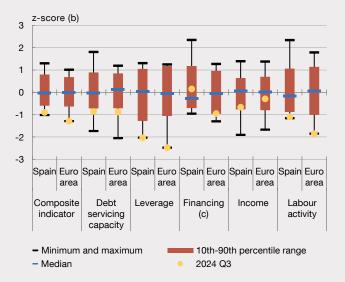


Chart 3 GDP growth and composite indicator of financial vulnerability (d)

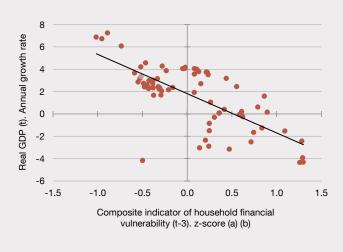
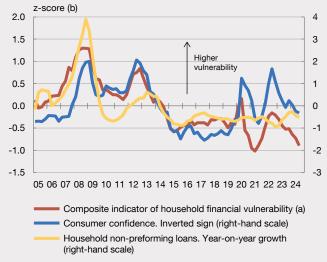


Chart 4 Composite indicator of financial vulnerability, confidence and credit quality



SOURCES: European Commission, INE and Banco de España.

- a Positive (negative) values indicate higher (lower) financial vulnerability than the average for the reference period (2005-2024).
- b Indicates the number of standard deviations that a specific value is above or below the average.
- c In contrast to the ECB's indicator, short-term debt is not included since in Spain this variable is influenced by pension advances, which could skew the interpretation.
- d Six quarters from the pandemic period are excluded (2020 Q2 to 2021 Q3). The dot for the latest GDP figure (2024 Q3) is shown in lighter shade.

A COMPOSITE INDICATOR OF AGGREGATE HOUSEHOLD FINANCIAL VULNERABILITY (cont'd)

Spanish households' financial vulnerability, despite the marked economic buoyancy.

In conclusion, the composite indicator of aggregate household financial vulnerability presented in this box signals a relatively benign financial position for households

by historical standards, both in Spain and in the euro area. This is underpinned by low debt levels, high saving and favourable labour market and income conditions. Nevertheless, as an aggregate indicator it does not take into account the potential pockets of vulnerability in certain household segments.

Boxes

PROBABILITY OF DEFAULT IN BANK LENDING TO FIRMS: RECENT DEVELOPMENTS

Dmitry Khametshin, Sergio Mayordomo and Ana del Río

This box discusses developments in the probability of default (PD) of Spanish banks' lending to non-financial corporations (NFCs). It uses information from the Central Credit Register (CCR) on the PDs reported by banks that use the internal ratings-based (IRB) approach to calculate their risk-weights. Specifically, each month banks report the PD of their corporate borrowers to the CCR.

Using this information, each firm's average quarterly PD was calculated as the average of the PDs assigned to it by each lender, weighted by the size of each bank's exposure to the firm.¹ Likewise, the average PD for all firms with bank loans² is calculated as the average PD of each firm,³ weighted by each borrower's share of the debt. Based on this indicator, since mid-2022 PD has steadily declined

from 5.7% to 4.1% for NFCs overall (Chart 1). By firm size, PD has decreased across the board, although the decline is less pronounced among microenterprises, whose PD was 187 basis points higher than the NFC average in 2024 Q3.

The change in the corporate sector's average PD between two points in time, t=0 and t=1, depends on how the PD of firms with loans in both periods ("fixed firms") performs and on the PD of new borrowers ("incoming firms") and of those that cease to be borrowers ("outgoing firms"). Therefore, the change in average PD between two points in time can be broken down into four factors based on the lending dynamics and credit quality of these types of firms (see the methodological annex for more details on the calculations):

Chart 1
Average PD of bank lending to NFCs, by firm size (a)

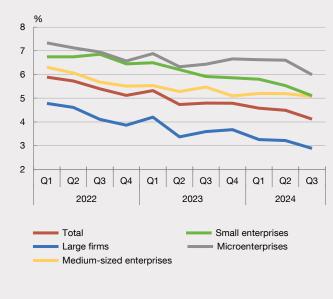
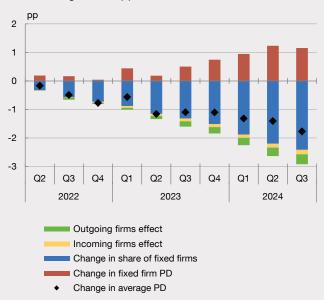


Chart 2
Contributions to the cumulative change in the average PD of lending to NFCs (b)



SOURCE: Banco de España.

- a Average of the PDs estimated by each lender for each NFC, weighted by share of lending. Excluding write-offs. Where there is no information on PD, firms are assigned their average PD according to the other banks or, where that is not possible, they are imputed the average PD of similar-sized firms from the same sector (NACE Rev. 2 division level).
- b Fixed firms are those which are borrowers in t = 0 and t = 1. Their contribution to the change in PD is split between the effect of the change in their debt and the effect of the change in their PD. Incoming firms effect and outgoing firms effect reflect the difference between the average PD of incoming firms (new borrowers) and outgoing firms (those which have paid off their debt), respectively, and that of fixed firms, using the weightings described in the methodological annex for each group.
- 1 Excluding write-offs.
- 2 Where there is no PD information for a firm from a specific bank because it does not use the IRB approach, the average PD from the other banks is taken
- 3 Where there is no information on the PD of a firm, it is imputed the average PD of similar-sized firms from the same sector (NACE Rev. 2 division level).

PROBABILITY OF DEFAULT IN BANK LENDING TO FIRMS: RECENT DEVELOPMENTS (cont'd)

- "Change in fixed firm PD" reflects how the average PD would have changed in the absence of incoming and outgoing firms, with each borrower's share of the debt remaining stable.
- "Change in the share of fixed firms" reflects the change in the weight of firms that remain borrowers in t = 1.
- "Incoming firms effect" reflects the effect of the average PD of new borrowers compared with that of borrowers in the previous quarter.
- 4 "Outgoing firms effect" reflects the effect of the average PD of the firms that no longer have bank debt, typically because they have paid it off.

Based on this breakdown, the decline in the average PD of NFCs overall since early 2022 is mainly explained by the change in the composition of the stock of lending. Thus, over the period under review, firms with lower PDs have accounted for a growing share of the stock of lending, especially those with an existing credit relationship, but also, albeit to a lesser extent, those previously without one. Specifically, the change in the share of fixed firms has contributed to a decline in PD of 2.4 percentage points (pp) between early 2022 and 2024 Q3 (Chart 2). Working in the same direction are firms that paid off their bank debt (outgoing firms effect, -0.3 pp), which had a higher than average PD, and new borrowers (incoming firms effect, -0.2 pp), which have a lower PD than existing borrowers. These developments have offset the deterioration in the PD of the stock of loans that would have arisen had the debt and borrower structure remained unchanged (change in fixed firm PD, 1.1 pp).

Methodological annex

The change in average PD between t = 1 and t = 0 can be broken down into the following factors:

$$PD_1 - PD_0 \quad \underbrace{= \underbrace{\left(PD_1^F - PD_0^F\right)}_{Fixed \ firms} + \underbrace{\left(PD_1 - PD_1^F\right)}_{Incoming} - \underbrace{\left(PD_0 - PD_0^F\right)}_{Outgoing}}$$

where

- $PD_t = \Sigma_i PD_{it}w_{it}$ is the average PD in t, PD_{it} is the PD of firm i in period t and wit is firm i's share of total loans in
- $PD_t^F = \Sigma_{i \in F} PD_{it} w_{it}^F$ is the average PD in t of fixed firms $F, \Sigma_{i \in F}$ () is a summation solely for fixed firms and w_{it}^{F} is fixed firm i's share of total fixed firm loans in period t.

Therefore, the change in average PD between t = 0 and t = 1 can be broken down into four factors based on corporate dynamics:

1 "Change in fixed firm PD" is calculated as the weighted sum of the changes in PD for fixed firms in both periods (t = 0 and t = 1), weighted by their share of fixed firm debt in period t = 0.

Change in fixed firm PD =
$$\Sigma_{i \in F}$$
 (PD_{i1} – PD_{i0}) W_{i0}^{F} [1]

where

- $-\Sigma_{i\in F}$ () is a summation only for fixed firms.
- 2 The contribution of "change in the share of fixed firms" is calculated as the weighted sum of the change in the shares of each firm, multiplied by the PD of each firm in t = 1.

Change in the share of fixed firms = $\Sigma_{i \in F} (w_{i1}^F - w_{i0}^F) PD_{i1}$ [2]

Note that
$$PD_1^F - PD_0^F = \Sigma_{i \in F} (PD_{i1} w_{i1}^F - PD_{i0} w_{i0}^F)$$
 and, therefore, $PD_1^F - PD_0^F = \Sigma_{i \in F} (PD_{i1} - PD_{i0}) w_{i0}^F + \Sigma_{i \in F} (w_{i1}^F - w_{i0}^F) PD_{i1} = [1] + [2].$

3 The contribution of "incoming firms effect" is equal to the difference between the average PD of incoming firms and that of fixed firms in t = 1, multiplied by the share of incoming firms' debt in total lending in t = 1.

Incoming firms effect =
$$PD_1 - PD_1^F = (1 - \theta_1) (PD_1^E - PD_1^F)$$
 [3]

where

- $PD_{1}^{E} = \Sigma_{i \in E} PD_{i1} w_{i1}^{E}$ is the average PD in t = 1 of incoming firms E, $\Sigma_{i \in E}$ () is a summation only for incoming firms and with is incoming firm i's share of total incoming firm loans.
- $-\theta_1$ is the proportion of lending to fixed firms in t = 1. Therefore, $(1 - \theta_1)$ is the proportion of lending to incoming firms in t = 1.
- 4 The contribution of "outgoing firms effect" is calculated as the difference between the average PD of the firms that were only borrowers in t = 0 and the average PD of the fixed firms in the same period, weighted by outgoing firms' share of total bank lending in t = 0.

Outgoing firms effect =
$$PD_0 - PD_0^F = (1 - \theta_0) (PD_0^S - PD_0^F)$$
 [4]

where

- $PD_0^S = \Sigma_{i \in S} PD_{i0} w_{i0}^S$ is the PD in t = 0 of outgoing firms S (those which no longer have bank debt in

PROBABILITY OF DEFAULT IN BANK LENDING TO FIRMS: RECENT DEVELOPMENTS (cont'd)

Report

t= 1), $\Sigma_{i\in S}()$ is a summation only for outgoing firms and w_{i0}^{S} is outgoing firm i's share of total outgoing firm loans.

 $-\theta_0$ is the proportion of lending to fixed firms in t=0. Therefore, $(1-\theta_0)$ is the share of lending in t=0 to firms that no longer have debt in t=1.

ANNEX 1 Databases used in the report

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

Bankruptcy Proceedings Statistics (BPS)

Description: The statistics provide information on bankruptcy applications by non-financial corporations, sole proprietors and individuals. The firms are broken down by variables such as sector of activity, geographical location (region), number of employees, turnover, age and legal form. There is also a breakdown by bankruptcy type (voluntary filing, involuntary or "subsequent" (concurso consecutivo)) and by proceedings class (special for microfirms, ordinary, express / no bankruptcy estate).

Institution: National Statistics Institute (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:

National Statistics Institute (INE): https://www.ine.es/dyngs/INEbase/en/operacion.htm?c=E stadistica_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

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 Balance Sheet Data Office Quarterly Survey (CBQ)

Description: Contains data from the unconsolidated balance sheets and income statements of non-financial corporations. 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 (almost 800 in 2024 Q3, representing 10.4% of total gross value

added according to National Accounts data).

Update: Three months after the reference quarter.

Further information: https://www.bde.es/f/webbe/GAP/Secciones/SalaPrensa/NotasInformativa

s/24/presbe2024-71.pdf

Central Business Register (DIRCE)

Description: The DIRCE provides information on firms (mainly business entities and sole proprietors) 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 to 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.

Publication: December (data reference date: 1 January).

Further information: https://www.ine.es/dyngs/INEbase/en/operacion.htm?c=Estadistica_ C&ci

d=1254736160707&menu=ultiDatos&idp=1254735576550

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-anuales/me

moria-cir/

Distributional Wealth Accounts (DWA)

Description: Experimental statistics produced by the European System of Central Banks to provide distributional information on household wealth drawing on financial account data and adding the non-financial assets in National Accounts. The statistics draw on the detailed data gathered in the Household Finance and Consumption Survey (HFCS) by the European Central Bank, involving around 80,000 households.

Institution: European Central Bank.

Frequency: Quarterly.

Data type: Quantitative.

Sample size: Population.

Publication: Five months after the reference quarter.

Further information: https://data.ecb.europa.eu/data/datasets/DWA/data-information

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

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

Liquidity and Funding Indicators

Description: The liquidity indicators provide data on the financial asset holdings of non-financial corporations and of households and non-profit institutions serving households in cash, deposits, credit institution securities and investment funds. The funding 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

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. 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: National Statistics Institute (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

Quarterly Statistics of the Observatorio de Márgenes Empresariales (Business 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: Agencia Estatal de Administración Tributaria (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-

marge nes-empresariales/observatorio-margenes-empresariales.html

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: Agencia Estatal de Administración Tributaria (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

Survey of Household Finances (EFF)

Description: A survey of households resident in Spain that provides 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, complementing the aggregated data in the FASE. To ensure that the study is representative, the randomly selected sample includes respondents from all economic strata and benefits from the cooperation of the INE.

Institution: Banco de España.

Frequency: Biennial (triennial between 2002 and 2020).

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

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: Quarterly since 2024¹ (previously half-yearly). The survey covers all euro area countries for three quarters of the year, while in the remaining quarter it covers all EU Member States plus some neighbouring countries (the Common round)

Data type: Mainly qualitative.

Sample size: Around 11,000 firms, of which between 1,300 and 1,500 Spanish firms, depending on the round.

Publication: Approximately 15 days after the last month of the reference period.

Further information: https://www.ecb.europa.eu/stats/ecb_surveys/safe/html/index.en.html

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¹ From 2024 the survey combines a quarterly and a half-yearly time frame. In the survey published in November 2024, around 60% of the firms answered the questions taking as reference the period between April and September 2024, while the other 40% did so for the period between July and September 2024.

ACRONYMS AND ABBREVIATIONS

AEAT Spanish tax revenue service

BLS Bank Lending Survey

CBI Integrated Central Balance Sheet Database

CBQ Central Balance Sheet Data Office Quarterly Survey

CCR Central Credit Register
DIRCE Central Business Register

EBAE Banco de España Business Activity Survey

ECB European Central Bank

EFF Spanish Survey of Household Finances ESCB European System of Central Banks

FISIM Financial intermediation services indirectly measured

GDI Gross disposable income
GDP Gross domestic product
GOP Gross operating profit
GOS Gross operating surplus
GVA Gross value added

HICP Harmonised Index of Consumer Prices
HOAM Home Ownership Affordability Monitor

HPI House price index

INE National Statistics Institute IRB Internal ratings-based

MTBE Quarterly Macroeconometric Model of the Banco de España

NACE Nomenclature statistique des activités économiques dans la Communauté européenne (statistical

classification of economic activities)

NDER Narrowly defined effective rate
NFCs Non-financial corporations
NPLs Non-performing loans
ONP Ordinary net profit
PD Probability of default
ROA Return on assets

SAFE Survey on the Access to Finance of Enterprises

Sareb Sociedad de Gestión de Activos Procedentes de la Reestructuración Bancaria (asset management

company for assets arising from bank restructuring)

SLIs Specialised lending institutions SMEs Small and medium-sized enterprises

VESGEP Statistics of Sales, Employment and Salaries in Large Companies and SMEs

bn Billion
bp Basis points
pp Percentage points

H Half
O Quarter

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