Box 1

## THE EFFECTS OF THE MARCH 2023 GLOBAL BANKING TURMOIL ON THE STABILITY OF THE EUROPEAN BANKING SYSTEM

The resolution of Silicon Valley Bank (SVB), the deterioration in the financial position of certain medium-sized banks in the United States and the takeover of the Swiss bank Credit Suisse by UBS, with the backing of the Swiss authorities, has driven up investor risk aversion and financial market volatility since March and prompted a drop in bank share prices worldwide.

SVB and Credit Suisse had already been underperforming other bank stocks since April 2022 (see Chart 1). Between that date and March 2023 both banks' stock prices had been following a downward trend, in contrast to the stability of the US banking sector's overall share prices and the recovery seen in European bank stocks. The additional fall in these two banks' share prices in March 2023, as their financial situation worsened, partially filtered through to the rest of the banking sector, which also saw stock price declines. Indeed, the correlation of SVB and Credit Suisse with other banks increased significantly, albeit temporarily, around the dates of greater stress at these banks (see Chart 2).

To assess the implications of these events for the financial stability of the European banking system and, in particular, the Spanish banking system, certain idiosyncratic factors that have contributed to the financial problems of these two banks must first be identified.

### Silicon Valley Bank

A large part of SVB's depositors were venture capital, fintech and start-up firms, and the bank was therefore heavily dependent on funding in the form of wholesale deposits, the vast majority of which were not protected by deposit insurance. Indeed, according to SVB Financial Group[1] accounting data for 2022, deposits accounted for 80% of its liabilities. Its funding sources were, therefore, short-term and potentially very unstable. Moreover, financial instruments and amortised cost loans[2] represented more than 80% of its assets (see Chart 3). Most of these assets were long-term debt securities that it intended to hold to maturity, and which could therefore accumulate significant latent unrealised losses until the emergence of liquidity pressures, in a setting of rising interest rates.

The volume of deposits at SVB had increased substantially since the start of the COVID-19 pandemic, partly thanks to the liquidity buffers accumulated by the firms in its customer base during that period as well as the new financing raised from investors. As firms gradually withdrew these funds to meet their liquidity needs, SVB was forced to sell a significant part of its debt securities at a loss, which it tried to cover through a capital increase that would offset the ensuing deterioration of its solvency.

Both developments generated mistrust among its depositors, who tried to reduce their deposits to the amount covered by the deposit guarantee scheme. The withdrawal of deposits, facilitated by new technologies and coordination via social networks, was unprecedentedly swift and intense, leading to a rapid loss of liquidity and solvency as more assets had to be liquidated to meet the requests for deposit withdrawals. These events forced the collapse of SVB on 10 March 2023, following which the US Federal Deposits Insurance Corporation (FDIC) initiated the resolution process.[3]

At the time of its collapse, US regulation exempted medium-sized banks like SVB from certain prudential liquidity (liquidity coverage ratio (LCR) and net stable funding ratio (NSFR)) and solvency requirements.[4] These banks are subject to less frequent stress tests than larger banks and may opt out of reflecting in their regulatory capital levels unrealised losses on balance sheet securities classified as available for sale.[5]

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1 SVB Financial Group is a consolidated group comprising SVB, SVB Capital, SVB Private and SVB Securities. According to the 2022 accounting information, SVB's average assets made up more than 90% of the sum of the assets of the entire group.

2 Under this accounting approach, assets (or liabilities) are recorded in the balance sheet at acquisition cost and are not revalued to market value on an ongoing basis, as it is assumed that the holder will keep them on its books until maturity. If they are sold, they must be revalued at market price and the resulting gain or loss must be recognised.

3 See FDIC press release dated 10 March 2023.

4 The S.2155 - Economic Growth, Regulatory Relief, and Consumer Protection Act, which increased the minimum asset threshold above which banks in the United States were required to conduct internal stress test exercises, was published in 2018. The Fed's Prudential Standards, 84 Fed. Reg. 59032 stipulated that banks with total consolidated assets of between $100 billion and $250 billion had to conduct stress tests every two years. Given its asset volume, SVB was not subject to these requirements in 2021.

5 The FDIC allowed smaller US non-advanced approaches banks to opt out of including losses or gains in their available-for-sale portfolios (which are therefore subject to interest rate risk) in their CET1 calculations. See 324.22 Regulatory capital adjustments and deductions. Unlike exposures held at amortised cost, available-for-sale exposures should typically reflect their fair value, which must be updated frequently. The above treatment is therefore an exception to the general accounting valuation and prudential principles.

## Credit Suisse

In the case of Credit Suisse, a global systemically important bank, the loss of investor confidence was closely related to the losses on its investment banking business, to past failed high-risk investment strategies (such as Archegos and Greensill) and to the materialisation of operational risks, linked in particular to money laundering cases, that significantly damaged its perceived trustworthiness, a key factor in banking.

Chart 1
STOCK PRICES OF SVB AND CREDIT SUISSE AND OF THE OVERALL US AND EURO AREA BANKING SECTORS (a)


Chart 2
CORRELATION OF SVB AND CREDIT SUISSE WITH BANKING INDICES (a) (b)


Chart 3
ASSET AND LIABILITY STRUCTURE AT SVB FINANCIAL GROUP AND CREDIT SUISSE. DECEMBER 2022 (c)

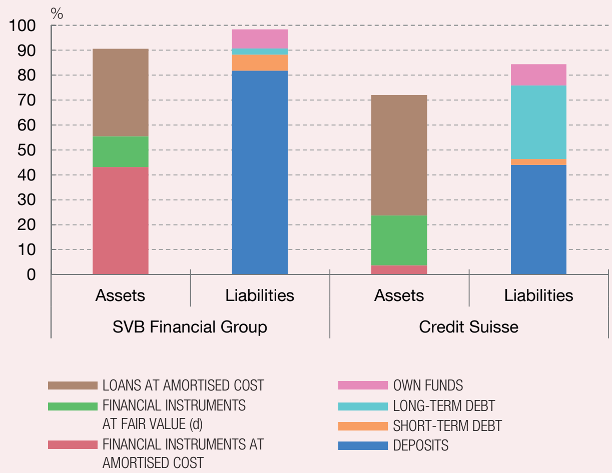
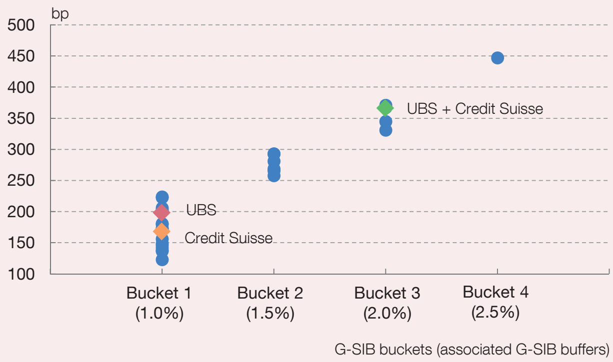



Chart 4
G-SIB OVERALL SCORES AND ASSOCIATED MACROPRUDENTIAL G-SIB CAPITAL BUFFERS FOR UBS AND CREDIT SUISSE. DECEMBER 2021 (e)




**SOURCES:** Refinitiv Datastream, *Credit Suisse Annual Report 2022,* United States Securities and Exchange Commission Form 10-K filed by SVB Financial Group, Bank for International Settlements and Banco de España.

- **a** The banking index is the S&P 500 Banks for the United States and the EURO STOXX Banks for the euro area.
- **b** The correlation coefficient of the daily log returns is obtained taking into account the three months prior to each date. The correlation between Credit Suisse and US banks is similar to that between SVB and euro area banks, with a peak on 15 March 2023. Data updated to 10 April 2023.
- **c** SVB Financial Group is a consolidated group comprising SVB, SVB Capital, SVB Private and SVB Securities. According to the 2022 accounting information, SVB's average assets made up more than 90% of the sum of the assets of the entire group.
- **d** The portfolio of financial instruments at fair value generally includes available-for-sale and other financial instruments where there is no commitment to hold the investment to maturity, and thus requires frequent revaluation to fair value.
- **e** The chart shows the scores of the 30 institutions that the FSB and the BCBS designated as G-SIBs in the latest available Basel exercise. The estimated position of the new entity ("UBS + Credit Suisse"), calculated on the basis of the scores obtained by UBS and Credit Suisse separately, is shown for information purposes.

Credit Suisse was in fact engaged in the complex process of transforming its business model and had suffered significant liquidity withdrawals in the final quarter of 2022.[6] Its LCR had been gradually declining since end-2021, from 203% to the 144% it recorded at end-2022, in daily 3-month average terms.

Unlike in the case of SVB, Credit Suisse's depositor and accounting portfolio structure appears to be unrelated to the crises it has faced. Of note on the assets side are loans at amortised cost (50%) and financial instruments at fair value (20%), with a small percentage of instruments at amortised cost (4%). Most of its liabilities are relatively evenly split between long-term debt (30%) and deposits (44%) (see Chart 3). In any event, this did not stave off Credit Suisse's financial risk management problems.

On 19 March 2023 the Swiss authorities approved the takeover of Credit Suisse by UBS, and undertook to support the merger through both the provision of liquidity by the Swiss National Bank and State guarantees to cover potential losses on certain assets in Credit Suisse's portfolio. Further, due to the risks to financial stability from Credit Suisse's situation, the forced write-down of all of the bank's AT1 debt instruments (also known as CoCos or contingent convertibles) was approved, inflicting a loss of €16 billion on their holders.[7] This possibility, envisaged in the issuance clauses of these financial instruments, was triggered by the financial assistance provided by the government to the bank, averting its resolution in favour of a private solution.

The new bank resulting from the merger of Credit Suisse and UBS will rank among the five largest global systemically important banks (G-SIBs) (see Chart 4). Up to now UBS had outperformed Credit Suisse in several of the metrics used to measure systemic importance, particularly those relating to interconnectedness with other financial institutions and the scale of its international activity (see Chart 5), although both were present in around 50 countries and had a global reach. The services provided by Credit Suisse had a higher degree of substitutability (compared with other banks), reflecting its greater involvement in business segments relating to underwriting and trading of securities and payment activities.

The integration of Credit Suisse into UBS will entail an increase of its capital buffer as a systemic bank. UBS and Credit Suisse were already separately designated as G-SIBs by the Financial Stability Board (FSB) and the Basel Committee on Banking Supervision (BCBS). The score obtained in the last G-SIB identification exercise in 2022 placed UBS and Credit Suisse as the 17th and 23rd most systemic banks, respectively. Based on the BCBS methodology, it is estimated that the new bank will have to maintain a macroprudential buffer of 2%, more than the current 1% requirement at UBS and Credit Suisse (see Chart 4). This could change in the medium term, as the acquisition agreement entails divestments in certain business areas. In any event, all this shows how important the successful stabilisation of the banking sector by the Swiss authorities is for global financial stability.

### Impact of Credit Suisse in the AT1 market[8]

The losses inflicted on Credit Suisse's AT1 bond holders generated considerable uncertainty in financial markets, particularly as they were compatible with a partial recovery of shareholders' investment, disrupting creditor hierarchy expectations. They thus contributed to the stock market declines in the week after the announcement and to a sharp increase in European bank CoCo yields (see Chart 6). This deterioration passed through, albeit much more moderately, to other debt instruments issued by European banks.

Faced with this situation, the Single Resolution Board (SRB), the European Banking Authority (EBA) and the European Central Bank (ECB) issued a joint statement[9] clarifying that, under the European Union's resolution framework, common equity instruments are the first ones to absorb losses, and only after their full use would AT1 be required to be written down. This approach has been consistently applied in past cases and will continue to guide the actions of the SRB and

6 In its 2022 annual report (see Credit Suisse 2022 Annual Report), Credit Suisse indicated that it had experienced liquidity problems in the last quarter of the year relating to large-scale withdrawals of cash deposits and the non-renewal of maturing time deposits.

7 See "Finma approves merger of UBS and Credit Suisse", press release of the Swiss Financial Market Supervisory Authority (FINMA) dated 19 March 2023.

8 Additional tier 1 capital instruments (AT1) are instruments that, while not meeting all the conditions to be considered common equity tier 1 (CET1) capital, allow losses to be absorbed while the bank continues to operate. See FSI. (2019). *Definition of capital in Basel III - Executive Summary.*

9 See SRB, EBA and ECB Banking Supervision statement on the announcement on 19 March 2023 by Swiss authorities, dated 20 March.

Box 1
**THE EFFECTS OF THE MARCH 2023 GLOBAL BANKING TURMOIL ON THE STABILITY OF THE EUROPEAN BANKING SYSTEM** (cont'd)

ECB banking supervision in crisis interventions. The authorities also indicated that AT1 is and will remain an important component of the capital structure of European banks. This joint SRB, EBA and ECB statement managed to stabilise European banks' CoCo prices.

In any event, European banks' ability to obtain funding through this kind of instruments needs to be monitored closely. CoCo holdings of euro area resident investors are concentrated in investment fund portfolios (see Chart 7). These investors have a higher risk appetite than other institutional investors, but it oscillates cyclically and could decline in a scenario of worsening global financial conditions. Non-euro area residents' AT1 holdings, for which less information is available,[10] are also considerable.

## Position of the Spanish banking sector

Several of the idiosyncratic elements behind the stress episodes at SVB and Credit Suisse are not present in European banks, or in particular in Spanish banks, and the events at these banks cannot be automatically extrapolated to these different banking systems as a whole.

The euro area banking system and, particularly, the Spanish system are facing these market tensions from a highly resilient position and with sound capital and liquidity positions, as a result of regulatory reform agreed internationally over the last decade. In Europe, strict capital and liquidity requirements have been applied to all banks, irrespective of their size.

Moreover, Spanish banks are more geared towards the retail segment and in recent times this has contributed to positive profitability developments, in a setting of rising interest rates, and to a favourable liquidity position and good financing conditions. Thus, Spanish banks' profitability has grown significantly over the past year, exceeding the cost of capital, having benefited from the positive effect of higher interest rates on banks' net interest income and the increase in fees and commissions.

Chart 5
G-SIB OVERALL SCORES AND BY CATEGORY OF INDICATOR FOR UBS AND CREDIT SUISSE. DECEMBER 2021 (a)

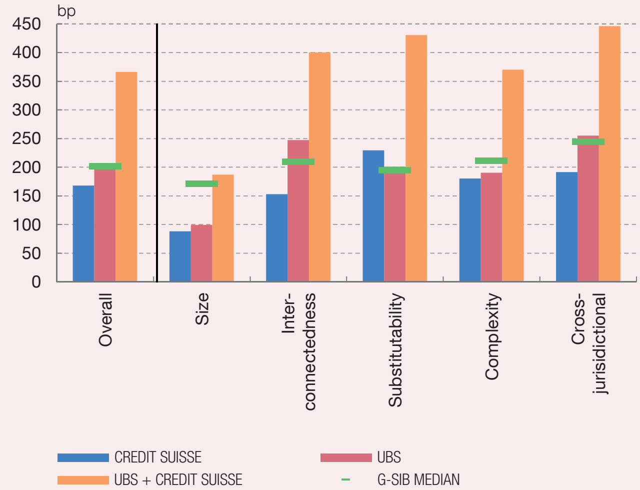
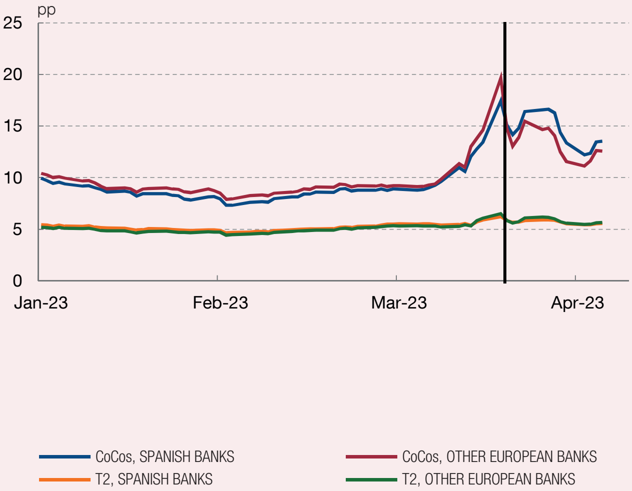



Chart 6
YIELDS ON AT1 AND T2 INSTRUMENTS ISSUED BY EUROPEAN BANKS (b)




**SOURCES:** Dealogic, Refinitiv Datastream, Bank for International Settlements and Banco de España.

a The chart shows the scores obtained by UBS and Credit Suisse in the latest available Basel G-SIB exercise. The scores of the institution are simulated from the sum of the scores obtained separately by UBS and Credit Suisse. The horizontal lines indicate the median of the scores obtained by the 30 institutions identified as G-SIBs.
b Profitability is obtained as the weighted average by volume of the yield traded in the secondary market on the different types of bonds from listed Spanish banks and a sample of European banks. CoCos: contingent convertible debt, eligible as Tier 1; T2: debt that complies with the Tier 2 requirements.

10 A large share of European CoCo holders are in non-euro area investor portfolios, where it is not possible to identify their sector.

It is also important to note that the risk of contagion of Credit Suisse's problems to the Spanish financial system through direct financial exposures is very moderate. First, direct credit exposures via interbank loans are low. In addition, Spanish banks' derivatives and securities lending transactions and repos with Credit Suisse are very limited. Lastly, according to Refinitiv data, Credit Suisse is not a major player in the syndicated loan market, meaning that its joint operations with Spanish banks are not systemically important. However, some caution is necessary, as the information on possible indirect connections through shared exposures to non-bank financial intermediaries or non-financial corporations is not yet fully available.

Due to their particular relevance in the SVB and Credit Suisse stress episodes, Spanish and other European banks' liquidity situation and the composition of their financial instrument and loan portfolios are analysed in more detail below.

### Liquidity situation

Spanish banks have high liquidity ratios, both in the short term and in terms of stable funding over a longer period (see Chart 2.10 in the main text of Chapter 2), placing them at the higher end of the distribution of these metrics among their European peers. As mentioned above, the retail orientation of Spanish banks' business, in clear contrast to SVB, also contributes to this sound liquidity position and to the stability and diversification of their funding sources.

The short-term liquidity position of Spanish deposit-taking institutions has improved in recent years. Specifically, their overall LCR rose from just under 170% at December 2019 to close to 180% at December 2022. Over the past year this ratio has declined by 29 percentage points (pp), helped by the tightening of the ECB's monetary policy and, in particular, the reduction in TLTRO funding. Insofar as it remains above the required 100% banks will not need to tap the market in the short term to cover liquidity outflows, in the 30-day stress scenario defined according to the regulatory LCR parameters. This limits the possibility of an abrupt upsurge in their financing costs.

A closer look at the composition of Spanish banks' high quality liquid assets (HQLAs), which are intended to act as a buffer against potential liquidity withdrawals by their customers, reveals a high concentration in those of the highest quality (see Chart 8, left-hand panel). The proportion of total Tier 1 (highest quality) assets increased from 92.3% in 2019 to 95.5% in 2022. Of note are the level and growth of cash and reserves and other assets at central banks, whose valuation is not affected by interest rate changes.

The composition of liability items susceptible to liquidity outflows has remained virtually unchanged in the last three years, with retail deposits accounting for the largest share of the total (close to 50%) (see Chart 8, right-hand panel). In the case of wholesale deposits, those held for operational or other reasons that are susceptible to greater liquidity outflows represented close to 15% of total liabilities susceptible to outflows, both in 2019 and 2022.

In any event, supervision at European and national level will closely monitor banks' liquidity positions to ensure that available buffers are not reduced, which would increase vulnerability to potential investor withdrawals. In addition, the ECB has also announced the existence of a wide range of instruments that could be activated to immediately mitigate any such risk.

### Accounting classification of financial assets

With regard to the assessment of solvency, an important factor in the case of SVB was the proportion of its holdings of financial instruments, in particular of debt instruments, and how they were valued for the purpose of calculating capital. In this regard, the asset structure in Spanish banks' balance sheet is similar to that of the other European banks. In addition, it must be borne in mind that a portion of the debt securities held by Spanish banks – like those of other European and international banks – is classified as held-for-sale. In accordance with the regulatory treatment of such portfolios in the European Union, these securities are measured at market price. Therefore, any potential gains or losses have already been recognised against the banks' capital. This is a very important difference with respect to medium-sized US banks, which benefited from accounting exemptions in this area.

Another portion of the fixed-income portfolios of European and Spanish banks is intended to be held to maturity. These debt securities are therefore classified and recognised as such. These portfolios are deemed a balance sheet risk management tool for banks, to make their balance sheets less volatile and, above all, less

Box 1

## THE EFFECTS OF THE MARCH 2023 GLOBAL BANKING TURMOIL ON THE STABILITY OF THE EUROPEAN BANKING SYSTEM (cont'd)

Chart 7
DISTRIBUTION OF AT1 HOLDINGS ISSUED BY EUROPEAN BANKS. DECEMBER 2022 (a)

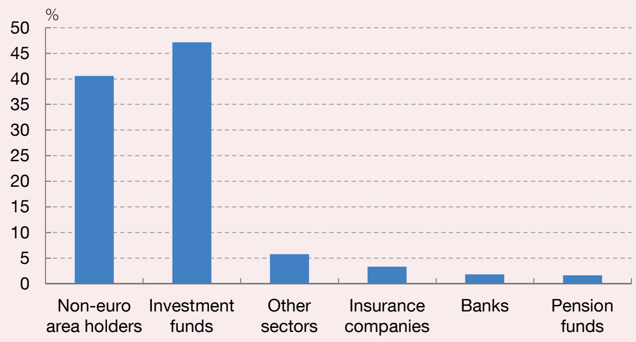



Chart 8
COMPOSITION OF HIGH QUALITY LIQUID ASSETS AND LCR CASH OUTFLOWS IN DECEMBER 2019 AND 2022 IN SPAIN (b)

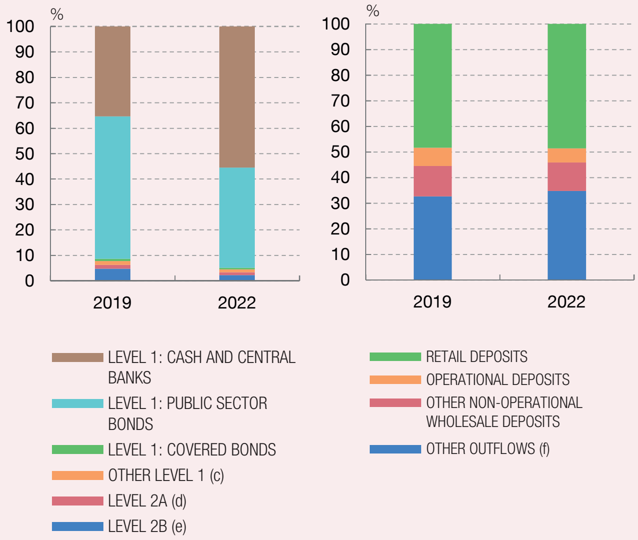



Chart 9
EUROPEAN COMPARISON OF THE COMPOSITION OF FINANCIAL ASSETS (FA) AND SOVEREIGN EXPOSURES (SOV) BY VALUATION METHOD. DECEMBER 2022 (g)

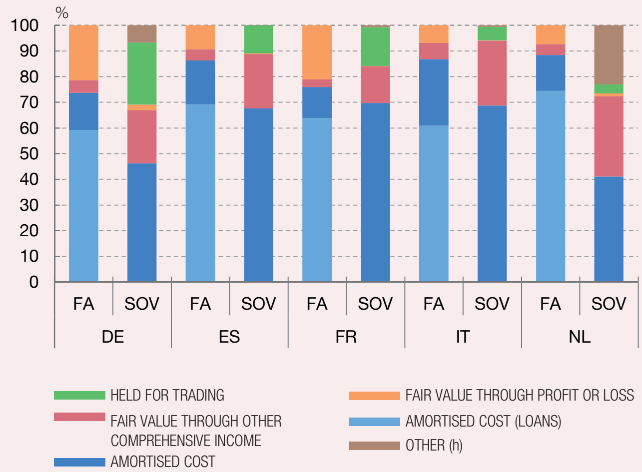
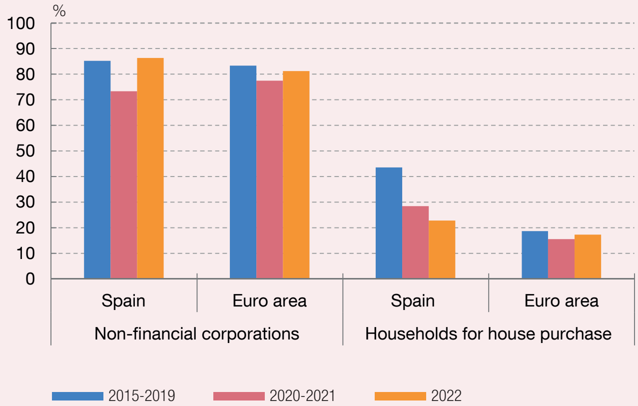



Chart 10
SHARE OF NEW LENDING GRANTED BY SPANISH AND EURO AREA BANKS AT A VARIABLE RATE (i)




**SOURCES:** Dealogic, SHS, Banco de España, EBA and ECB.

- **a** The chart shows the proportion of the outstanding balance of AT1 instruments held by each type of holder. These instruments' yields are analysed in Chart 6, which includes both Spanish banks and a sample of European banks. Other sectors include households and non-financial corporations.
- **b** The LCR is the ratio of high-quality liquid assets to net cash outflows (the difference between inflows and outflows) over 30 days.
- **c** Including other extremely high-quality assets.
- **d** Including high-quality assets, such as central bank and third-country central, regional and local government assets, covered bonds and other high-quality assets.
- **e** Including shares which are part of a major stock index, asset-backed securities with a credit rating of 1 and corporate debt securities with a credit rating of 2/3, together with other high-quality assets.
- **f** Other outflows, such as those from secured lending and capital market-driven transactions, other unsecured transactions/deposits, additional outflows, committed facilities, overdrafts and other liabilities.
- **g** Sovereign exposures are included in overall financial assets. Financial assets at amortised cost are recorded at their acquisition cost and are not revalued to market cost on an ongoing basis. By contrast, financial assets at fair value and held-for-trading assets are regularly revalued to market value.
- **h** Includes trading sovereign exposures, non-trading exposures mandatorily valued at fair value through other comprehensive income or profit and loss or at fair value to equity or measured using a cost-based method, and other financial assets not held for trading.
- **i** Variable interest rate transactions are defined as those with a flexible rate or with a fixed initial interest rate for a period of less than one year.

procyclical. As mentioned above, held-to-maturity portfolios are accounted for at amortised cost, not at market value. Only if banks were to sell these portfolios before maturity would the potential unrealised losses materialise (specifically, at the time of the sale itself). In any event, it should be noted that for the purposes of calculating the LCR ratio these assets are taken at market value, as is appropriate for liquidity purposes. Given Spanish banks' high liquidity ratios and their improved earnings in 2022, this scenario of forced sales before maturity is unlikely.

Specifically, in December 2022, 86.2% of the main Spanish banks' financial assets (including loans) and 67.5% of their sovereign exposures were measured at amortised cost. These percentages are similar to those for 2019 and in line with those of the main comparable European banks (see Chart 9). German and French banks have the lowest percentage of exposures at amortised cost relative to total financial assets (around 75%), while in the case of sovereign exposures, German and Dutch banks have the lowest percentage at amortised cost (around 45%). In the case of Spanish banks, loans (and not fixed-income marketable instruments) accounted for the largest share of exposures at amortised cost as a percentage of financial assets at December 2022 (80.1%). Sovereign exposures represented 14.1% of their total financial assets at that date, while the median for the main European countries stood at 11.6%.

In assessing the risks associated with the loan portfolio, the proportion associated with fixed and variable rate remuneration systems must also be considered. If most of the loans in the amortised cost portfolio are variable rate loans, this provides banks with a natural hedge against interest rate rise scenarios such as the current one.

In this respect, the proportion of new variable rate lending by Spanish banks[11] to non-financial corporations has remained stable in recent years, standing at 86.2% in 2022, slightly above the level for the euro area (81.2%) (see Chart 10). In the case of loans for house purchase, fixed rate loans have accounted for the bulk of new lending in recent years, with the volume of new variable rate loans falling to 22.7% in 2022, still 5.5 pp above the overall euro area figure. However, in the case of Spain, the historical predominance of variable rate lending and the long maturities of these loans, whose average time to maturity at end-2022 was almost 20 years, limits the weight of fixed rate loans in the total loan for house purchase portfolio to a level slightly below 30% at end-2022.

## Assessment of the global risk environment

Having analysed the balance sheet dimensions that are most directly relevant to understand the resilience of European and, particularly, Spanish banks to stress episodes such as those experienced by SVB and Credit Suisse, a broader view of the risk scenarios facing the banking sector is also needed. In a macro-financial situation in which interest rates have had to be raised swiftly to contain inflationary pressures, banks face opposing risks to their net interest income, the value of their holdings of financial instruments and their balance sheet credit quality.

Banks whose average lending rates have adapted faster to the new situation than their average deposit rates (for instance, those with a greater share of variable rate loans and/or shorter maturities, and a greater share of retail funding) are seeing a substantial improvement in their net interest income, which has boosted their profitability. Conversely, in general, the value of fixed-income financial exposures (such as bonds, especially those with longer maturities) has declined. Further upward adjustments to banks' cost of financing and, over the more medium term, some deterioration of credit risk quality will be more likely the longer the high interest rate period continues. The extent to which different banks and financial systems position themselves against these risks, which has now attracted more attention from investors, will determine how resilient they are.

In an environment as uncertain as the one we have been witnessing in recent months, including in relation to the degree of future monetary policy tightening, Spanish banks must implement a prudent provisioning and capital planning policy that allows them to harness their favourable positioning and use part of the current short-

11 For this purpose, based on the information in the interest rate statements reported to the ECB on the volume of new lending, flexible rate loans and those with a fixed initial interest rate for a period of less than one year are deemed variable rate loans.

term increase in income to further raise the sector's resilience. This would leave banks better placed to deal with any potential losses, should the different risk scenarios identified in the summary of risks and vulnerabilities materialise.

### Importance of supervision and the banking union

The role of banking supervision in this uncertain environment must also be highlighted. Even before the recent banking events, certain supervisory priorities had been set within the Single Supervisory Mechanism (SSM), specifically designed to mitigate and anticipate potential adverse effects of the current macroeconomic context. In particular, the supervisory focus was placed on banks' interest rate risk and the sustainability of their funding plans, issues that are crucial in a setting of rising interest rates and liquidity withdrawals. The most exposed European banks were required to improve the way in which they monitor and manage this risk. In some cases they were even asked to be more conservative in their interest rate assumptions and in their model calibration and validation.

Likewise, when it emerged that there were interconnections between the banking system and non-bank financial intermediaries, as in the case of Archegos, which, as noted above, particularly affected Credit Suisse, the decision was also made to place the supervisory focus on analysing the risks of this type of exposure for European banks.

Lastly, the SVB and Credit Suisse episodes have strengthened the case for deepening integration within the banking union. This would require EU leaders to agree on a proposal to implement a fully mutualised European Deposit Insurance Scheme (EDIS). The commitment to deploy such a scheme would have a positive impact on the confidence of citizens and the markets and would contribute to increased risk-sharing among countries and, thus, to reducing potential episodes of fragmentation. This third pillar of the banking union would help align financial liability with institutional banking supervision and resolution decision-making arrangements, which have been centralised for almost a decade through the SSM and the Single Resolution Mechanism (SRM).