2

RISKS TO THE FINANCIAL SECTOR AND ITS RESILIENCE

Bank lending has been notably more subdued in the first half of 2021, mainly as a result of the fall in demand. This moderation contrasts with the growth observed during the initial phases of the pandemic, which was driven by the private sector's liquidity needs and the support schemes established to mitigate the impact of the crisis. The volume of non-performing loans (NPLs) has continued to decline, although significant latent risks have been detected. Specifically, these are more pronounced in the loans granted under the support schemes which were naturally concentrated in the hardest-hit sectors and businesses. The economic upturn has led to the recovery in bank profitability which, nevertheless, remains relatively low compared with that of other sectors and non-euro area banking systems. The measures implemented by the authorities have also been key to increasing banks' solvency in the past year. In this connection, the stress tests conducted by the Banco de España and the European Banking Authority (EBA) reflect the banking sector's considerable resilience, in aggregate terms, to the materialisation of the risks identified, although there are notable differences across banks in terms of capital charges under the adverse scenario. In any case, the results of these tests do not indicate a need for extensive supervisory intervention under this scenario. The high risk-absorbing capacity of banks can be partly explained by the measures adopted by the authorities to address the economic and social effects of the crisis.

2.1 Deposit institutions

2.1.1 Balance sheet structure, risks and vulnerabilities

Credit risk

The volume of lending to the resident private sector in Spain remained stable in the last 12 months as a whole. Lending by deposit institutions to the resident private sector fell by 0.2%[1] from June 2020 (see Chart 2.1.1), in clear contrast to the increase posted between December 2019 and June 2020, which was largely due to the economic policy measures implemented to alleviate the effects of the pandemic. The slight decline in the stock was influenced by the sharp decrease in total new lending granted to households and non-financial corporations (NFCs) in 2021 H1, which fell by 31% year-on-year. This reduction is mainly explained by the lower

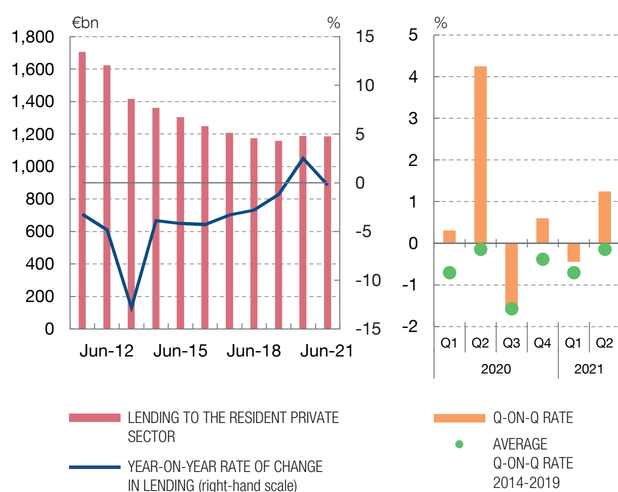
1 The change in June 2021 was affected by a corporate transaction consisting of the absorption of an SLI into a significant deposit institution (DI). Excluding this operation, the year-on-year decrease in credit would be 0.8%.

Chart 2.1

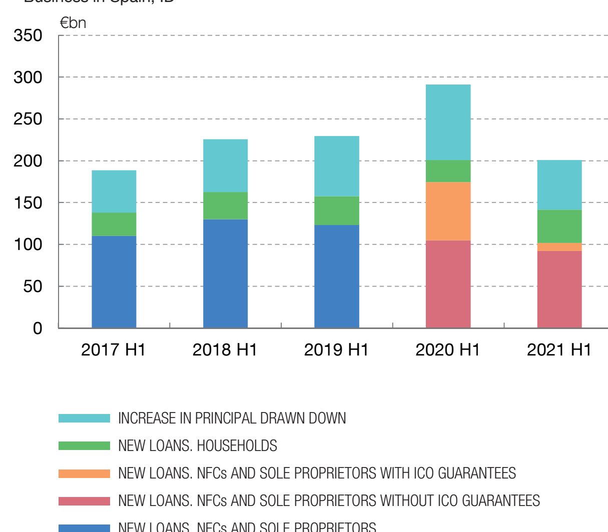
THE VOLUME OF LENDING TO THE RESIDENT PRIVATE SECTOR REMAINED STABLE OVER THE LAST 12 MONTHS, LARGELY DUE TO THE MODERATION IN NEW LOANS WITH ICO GUARANTEES

The stock of credit, which grew at the start of the pandemic as a result of the economic policy measures adopted (mainly ICO guarantees), remained stable over the last 12 months (-0.2% year-on-year in June 2021). In 2021 H1, new lending to non-financial corporations and sole proprietors decreased notably with respect to the previous year owing to the lower volume of new ICO-backed loans to businesses. However, new lending to households rose significantly.

1 VOLUME OF LENDING AND YEAR-ON-YEAR RATE OF CHANGE
Business in Spain, ID



2 VOLUME OF NEW LENDING IN THE LAST SIX MONTHS. HOUSEHOLDS, NFCs AND SOLE PROPRIETORS
Business in Spain, ID



SOURCES: Instituto de Crédito Oficial and Banco de España.

volume of new loans with ICO guarantees which amounted to less than €10 billion, far below the amount of almost €70 billion recorded in 2020 H1. The increase in principal drawn down also moderated, thus converging to pre-pandemic levels.

Slower growth in lending to NFCs and sole proprietors, mainly those hardest hit by the pandemic, contrasted with the quickening growth of lending to households. The volume of lending to NFCs and sole proprietors decreased by 1.6% (see Chart 2.2.1) in the last 12 months, reflecting the significant contraction, of 40%, in new lending to these enterprises in 2021 H1 overall, compared with the same period a year earlier. In fact, lending to NFCs and sole proprietors in the sectors most severely affected by the pandemic posted the strongest growth in 2020 H1.[2] So far in 2021, growth rates have levelled across different sectors, all of which show a clear trend towards stabilisation (see Chart 2.2.2). Lending to households rose by 1.2% year-on-year, following growth of 20.1% in new lending in H1, compared with

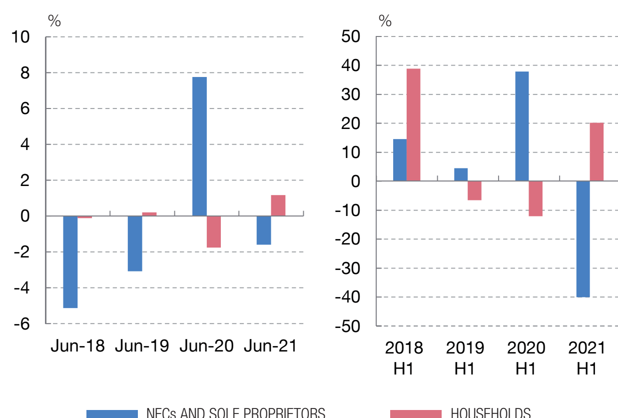
2 Lending to the hardest-hit sectors is proxied by that corresponding to the sectors with a fall in turnover of more than 15% in 2020, which can be identified in the FI-130 regulatory return. Specifically, lending to the most severely affected sectors includes hospitality, the manufacture of refined petroleum products, social services and entertainment, transportation and storage, and the manufacture of transport equipment.

Chart 2.2

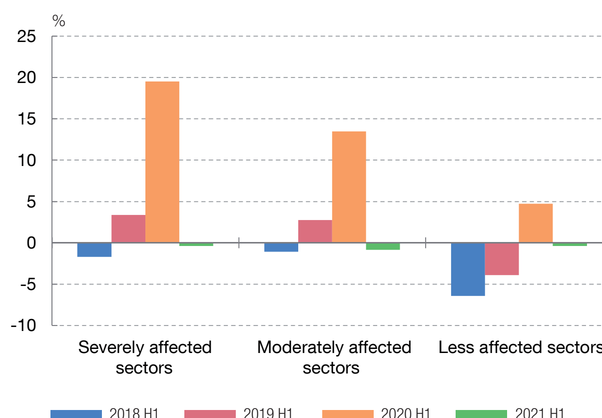
LENDING TO THE CORPORATE SECTOR DECLINED IN 2021 H1, WITH DIFFERENT SECTORS SHOWING MORE EVEN BEHAVIOUR THAN IN 2020. IN CONTRAST, LENDING TO HOUSEHOLDS GREW IN THE SAME PERIOD

The volume of lending to non-financial corporations and sole proprietors declined slightly in the last year, contrasting with the strong growth posted at the start of the pandemic, mainly in the most severely affected sectors. The subdued growth rates in lending to the most severely affected sectors has resulted in convergence towards that of those less affected. The stock of loans to households grew moderately in H1, while the flow of new lending was notably higher than in the same period a year earlier.

1 YEAR-ON-YEAR RATE OF CHANGE IN THE STOCK OF LOANS LEFT) AND NEW LOANS (RIGHT)
Business in Spain, ID



2 SIX-MONTHLY RATE OF CHANGE IN LENDING. NON-FINANCIAL CORPORATIONS AND SOLE PROPRIETORS
Business in Spain, ID (a)



SOURCE: Banco de España.

a Lending to the more severely affected sectors is proxied by that corresponding to sectors with a fall in turnover of more than 15% in 2020, which can be identified in the FI-130 regulatory return. Specifically, lending to the more severely affected sectors includes hospitality, the manufacture of refined petroleum products, social services and entertainment, transportation and storage, and the manufacture of transport equipment. Lending to moderately affected sectors is proxied using the following sectorisation in the FI-130 regulatory return: metallurgy, manufacture of machinery, other manufacturing activities, professional services, mining and quarrying, wholesale and retail trade, and repair of vehicles. Other productive activities are in the largely unaffected sectors.

the same period a year earlier. Specifically, new lending for house purchase, which notably exceeded that recorded in the same period in 2019.

The volume of NPLs has continued to decline in 2021, albeit at a slower pace than in pre-pandemic years. In June 2021, non-performing assets fell by 5.8% year-on-year, compared with the double-digit declines posted in the years before the pandemic. Since December 2013, NPLs have decreased by €137 billion, representing a cumulative decline of 73%.[3] The fact that they have not increased since the onset of the pandemic marks a departure from past economic crises in Spain, when NPLs rose strongly during the first year of economic contraction.

3 The application since 1 January 2021 of EBA guidelines (EBA/GL/2016/07) with respect to the new definition of default pursuant to Article 178 of (EU) Regulation 575/2013 has given rise to some differences in the amounts classified as "non-performing for accounting purposes" (accounting definition contained in Banco de España Circular 4/2017) and "non-performing for prudential purposes" (according to previous guidelines). Specifically, in the first six months of 2021, the so-called "NPLs for prudential purposes" accounted for around 10% more than "NPLs for accounting purposes", which in absolute terms amounts to approximately €5.5 billion.

The NPL ratio also continued to decline in the last 12 months, again more moderately than before the outbreak of the COVID-19 crisis. In June 2021, the NPL ratio for lending to the resident private sector stood at 4.3% (see Chart 2.3.1), down 0.25 pp from the same month a year earlier. The lower decline in NPLs (numerator) and the stalling growth in lending (denominator) explain the moderate fall in the ratio in the last 12 months. As mentioned in previous FSRs, economic policy measures such as furlough schemes, tax moratoria and public guarantee and debt moratoria schemes have sustained the financial capacity of economic agents, particularly firms, thus cushioning the impact of the economic downturn observed in Spain as a result of the pandemic. In this connection, the rate of decline of NPLs of non-financial corporations and sole proprietors slowed, whereas in the case of households, the NPL ratio continued to fall.

Despite the aggregate decline in NPLs, there are some signs of credit quality impairment, in particular the increase in refinanced and Stage 2 loans. Stage 2 loans, with a higher anticipated probability of default than other performing loans,[4] increased substantially (53%) in the last 12 months (see Chart 2.3.2). This trend began to be observed in 2020 Q3, quickening notably in 2020 Q4, with the year-on-year rate of change in these loans continuing to rise. Forborne loans, which had declined more moderately in recent quarters, posted an increase of 8.8% year-on-year in June 2021, possibly indicating some banks' greater recourse to them to mitigate the loan repayment difficulties encountered by some borrowers, especially NFCs.[5]

The sectors hardest hit by the pandemic are those with the most evident signs of current and potential credit impairment. NFCs and sole proprietors in these economic sectors, which were particularly affected, first and foremost because of the restrictions on activity, have seen their ability to repay existing loans diminish. This initially led to higher Stage 2 loans to these sectors, especially in 2020 H2 (see Chart 2.3.3), followed by an increase in their NPLs in 2021 H1 (see Chart 2.3.4).

The degree of credit quality impairment of loans linked to expired moratoria as of June 2021 remained unchanged, while that of loans with ICO guarantees increased. The proportion of loans linked to expired or cancelled moratoria which showed signs of credit impairment (see Chart 2.4.1) was 20% for Stage 2 (compared with 19% in December 2020), and 9% for NPLs (compared with 8% in December 2020). This impairment could increase in the coming quarters, since a significant proportion of moratoria have expired only very recently, in the second quarter of

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4 Pursuant to Circular 4/2017, a loan is classified as a Stage 2 exposure when credit risk has increased significantly since initial recognition, even though no event of default has occurred.

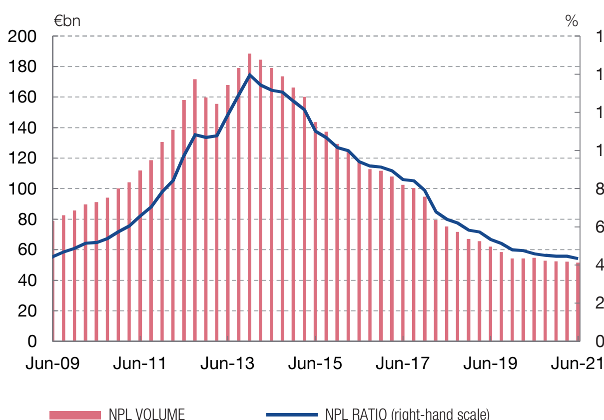
5 The increase in forborne loans largely corresponds to ICO-backed loans with extensions pursuant to the provisions of Royal Decree-Law 34/2020.

Chart 2.3

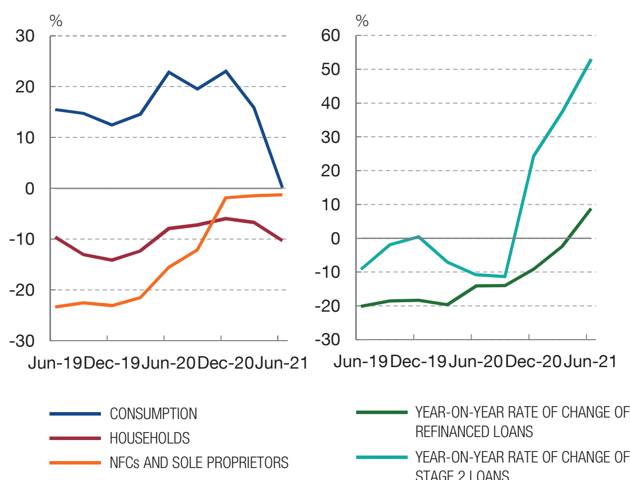
THE VOLUME OF NPLs CONTINUED TO DECLINE, ALTHOUGH SOME SIGNS OF CREDIT QUALITY IMPAIRMENT AND UNEVEN BEHAVIOUR ACROSS SECTORS WERE OBSERVED

The volume of NPLs continued on the downward trend of recent years, although the decline was more moderate. This, along with the stabilisation of lending between June 2020 and June 2021, led to a lower decline also in the NPL ratio. However, early signs of loan repayment difficulties by economic agents were observed, such as the strong increase in Stage 2 loans, particularly in the sectors most severely affected by the pandemic, and a year-on-year increase in refinanced loans, something which had not occurred since the end of the global financial crisis.

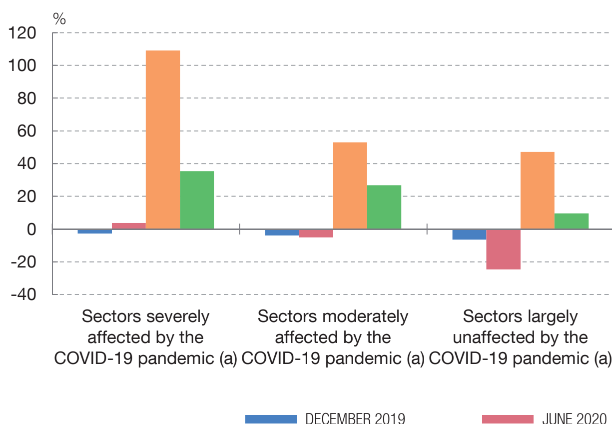
1 NPLs AND NPL RATIO OF THE RESIDENT PRIVATE SECTOR
Business in Spain, ID



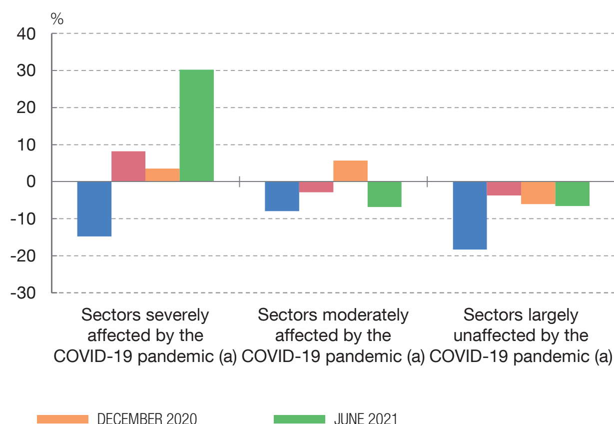
2 YEAR-ON-YEAR RATES OF CHANGE OF NPLs (LEFT) AND SIGNS OF EARLY IMPAIRMENT IN LENDING TO RESIDENT PRIVATE SECTOR (RIGHT)
Business in Spain, ID



3 SIX-MONTHLY RATE OF CHANGE OF STAGE 2 LOANS. NFCs AND SOLE PROPRIETORS
Business in Spain, ID



4 SIX-MONTHLY RATE OF CHANGE OF NPLs. NFCs AND SOLE PROPRIETORS
Business in Spain, ID



SOURCE: Banco de España.

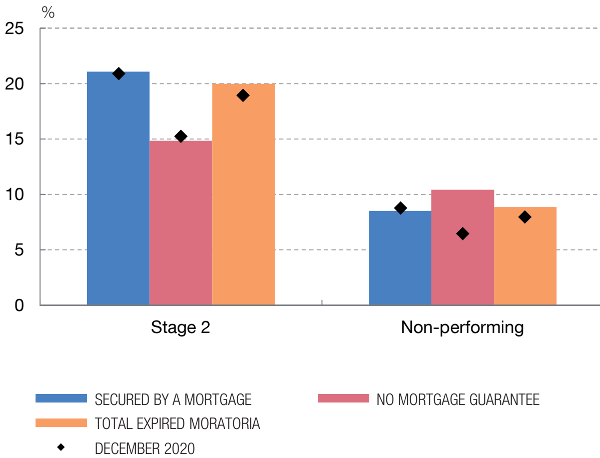
a Lending to the more severely affected sectors is proxied by that corresponding to sectors with a fall in turnover of more than 15% in 2020, which can be identified in the FI-130 regulatory return. Specifically, lending to the more severely affected sectors includes hospitality, the manufacture of refined petroleum products, social services and entertainment, transportation and storage, and the manufacture of transport equipment. Lending to moderately affected sectors is proxied using the following sectorisation in the FI-130 regulatory return: metallurgy, manufacture of machinery, other manufacturing activities, professional services, mining and quarrying, wholesale and retail trade, and repair of vehicles. Other productive activities are in the largely unaffected sectors.

Chart 2.4

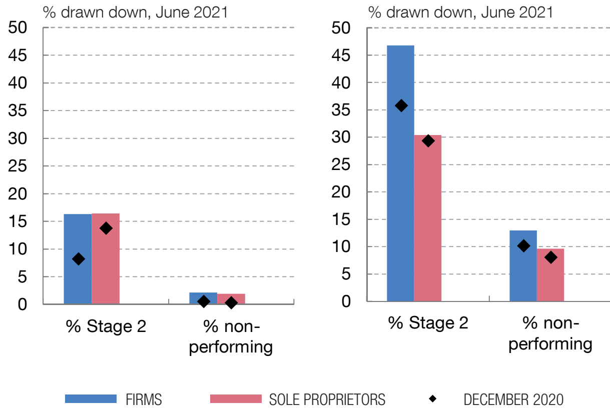
THE SIGNS OF DETERIORATION IN THE CREDIT QUALITY OF LOANS WITH EXPIRED MORATORIA REMAIN AND HAVE INTENSIFIED IN THE CASE OF ICO-BACKED LOANS

The credit quality of loans linked to expired moratoria worsened in 2021 H1 owing to the behaviour of those with no mortgage guarantee. The credit quality of ICO backed loans deteriorated, as the ratio of loans in Stage 2 and of non-performing loans increased. This deterioration can also be observed when analysing the overall quality of all loans arranged by customers who have been granted ICO-backed loans.

1 CREDIT QUALITY OF LOANS LINKED TO EXPIRED OR CANCELLED MORATORIA IN JUNE 2021



2 STATUS OF ICO-BACKED LOANS IN JUNE 2021
Loan level (l-h panel) / Customer level (r-h panel) (a)



SOURCE: Banco de España.

a In the customer-level analysis, for each firm or sole proprietor with one or more ICO-backed loans all possible deteriorations are identified in any of their loans (ICO-backed or otherwise) arranged with the bank that granted it the ICO-backed loan or with other banks. If customers have problematic loans above a minimum materiality threshold, they are flagged as a customer with some sign of deterioration. In the analysis at customer-guaranteed loan level, only the possible credit problems affecting the ICO-backed loans of those customers are examined.

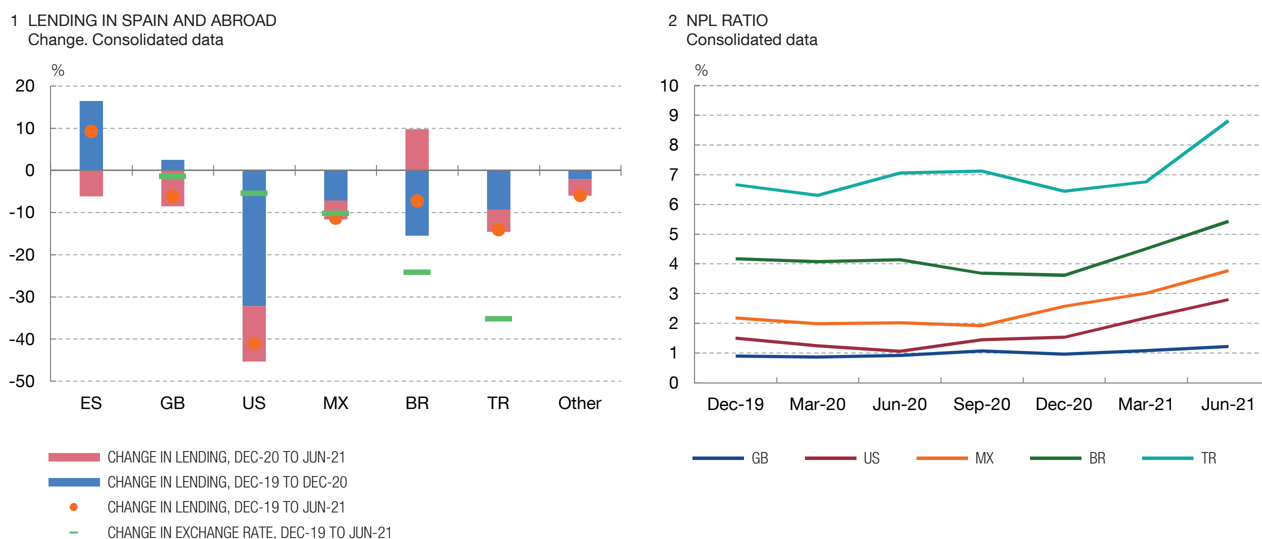
2021. However, the loans benefitting from moratoria account for a small percentage of banks' portfolios.[6] The situation of ICO-guaranteed loans granted to non-financial corporations and sole proprietors had deteriorated in June 2021 with respect to December 2020 (see Chart 2.4.2). In transactions with ICO guarantees, Stage 2 loans accounted for 16% of the credit drawn, an increase of 8 percentage points (pp). The increase was more subdued in the case of sole proprietors, but it reached the same percentage. It should be borne in mind that a large portion of these ICO-guaranteed loans currently have payment holidays, which reduces the possibility of credit risks materialising in the short term. It is also observed that the proportion of ICO loans linked to customers with one or more troubled loans (of all their loans, not only those with ICO guarantees) has increased significantly in the case of NFCs. The abundant signs of credit impairment in customers with ICO guarantees suggests that risk in ICO-backed loans may materialise to a greater extent, once the payment holidays have expired. Box 2.1 analyses in more detail the characteristics of the

6 Loans that have become subject to moratoria at any point since the onset of the crisis amount to €60.5 billion (8.6% of all lending in the loan portfolios eligible for moratoria and 5.5% of all lending to the non-financial private sector in December 2020.

Chart 2.5

THE VOLUME OF ASSETS HELD ABROAD BY SPANISH BANKS HAS FALLEN SINCE THE ONSET OF THE PANDEMIC, PARTLY AS A RESULT OF THE ACROSS-THE-BOARD APPRECIATION OF THE EURO AND THE DIVESTMENT IN THE UNITED STATES

Credit exposure abroad has decreased by 11.8% since the pandemic broke. The decline observed in the United States was the result of the divestment in that geographical area by a Spanish bank. The appreciation of the euro against local currencies contributed to the decline in the exposure to Turkey, Mexico and Brazil. NPL ratios held stable during the initial quarters of the pandemic, but started to rise in 2021 H1, reaching the highest values in Turkey and Brazil.



SOURCE: Banco de España.

businesses and banks which have participated in ICO guarantee schemes, and the effect of these on the structure of banking relationships. Box 2.2 examines recent developments in the duration and expiry of payment holidays for ICO-backed loans.

The volume of Spanish deposit institutions' assets abroad has decreased since the start of the pandemic, conditioned by the divestment made in the United States by one deposit institution and by the appreciation of the euro against the currencies of the geographical areas in which they operate. From December 2019 to June 2021, the volume of euro-denominated assets abroad of Spanish deposit institutions fell by 11.8%. Several factors unrelated to the bank lending situation in the geographical areas in which these institutions operate contributed to this decline. In particular, there was significant divestment in the United States by a Spanish deposit institution, with reclassification of the amount to non-current assets held for sale until the transaction was completed in 2021 Q2. The decline in Turkey was mainly due to the behaviour of its currency vis-à-vis the euro. Such behaviour was similar, but less pronounced, in Brazil and Mexico (see Chart 2.5.1). Although NPL ratios remained stable in 2020 in the main geographical areas in which Spanish deposit institutions are present, they increased across the board in 2021 H1. The NPL ratio in Turkey stood at 8.8% in June 2021, up 2.4 pp since

December 2020, while Brazil posted 5.4% and Mexico 3.8%, with increases of 1.8 pp and 1.2 pp, respectively, since end-2020.

Financing conditions

Banks' financing conditions have continued to improve, assisted by the excess liquidity resulting from the ECB's purchase programmes and the refinancing operations (TLTRO III), which have pushed down interest rates on unsecured loans. The Eurosystem's balance sheet has almost doubled since the start of the pandemic, driven by the different purchase programmes and loan facilities, which have led to a rise in the system's excess liquidity. Money market interest rates have continued to fall in this setting of ample liquidity (see Chart 2.6.1). The significant increase in refinancing operations in the summer of 2020[7] led to a gradual fall in the unsecured rate (€STR[8]) and therefore, to a considerably larger negative gap between the latter and the deposit facility rate, which has remained largely unchanged in 2021. The repo rate[9] has also tended to decline owing to excess liquidity, and the reduction of available collateral resulting from, among other factors, the increase in purchases by the Eurosystem. However, the relationship between the repo-deposit facility rate spread and excess liquidity has been less intense in recent months, thanks to the increase in securities lending by the Eurosystem since end-2020, and to the relaxation of collateral requirements in financing transactions in which assets other than sovereign debt are accepted.[10]

The interbank funding spread[11] has remained relatively stable, while the market perception of credit risk at Spanish banks is very low (see Chart 2.6.2). The interbank funding spread has remained at levels similar to those observed at the date of the last report, with a slight rebound in the months of September and October, and market expectations regarding this indicator suggest that the interbank costs could increase slightly in 2022, coinciding with the termination of the PEPP and the end of the favourable financing conditions applied to TLTRO III.[12]

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7 In the fourth and fifth rounds of TLTRO III in 2020, euro area banks applied for €1,308 billion and €175 billion, respectively, leading to a net liquidity injection of €706 billion. For more information, see: *Financial Stability Report,* Autumn 2020, Chapter 2: Liquidity and financing conditions.

8 Represents the unsecured overnight borrowing costs of banks located in the euro area. Both the interest rate and the trading volume are calculated and published each business day by the ECB based on the information provided by the 48 euro area MMSR reporting banks.

9 Refers to the overnight rate, according to the data reported by banks to the MMSR, agreed with other financial institutions, the collateral used being sovereign bonds issued by Spain, Italy, Germany and France.

10 The slower-than-expected pace of purchases under the PEPP announced at the ECB Governing Council's most recent meeting could reduce the restrictions on available collateral and thus ease the downward pressure on repo rates.

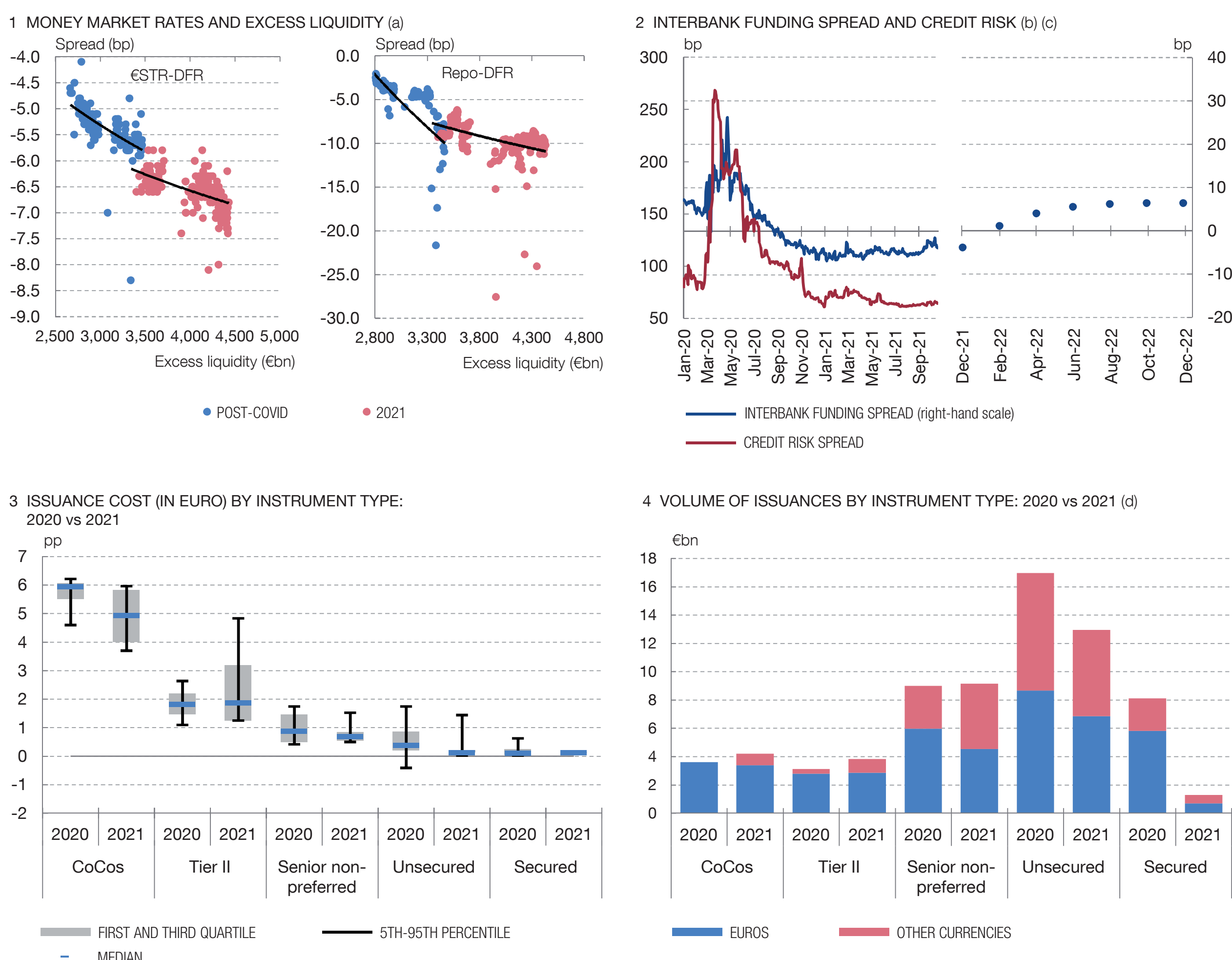
11 For more information about how this spread is calculated, see *Financial Stability Report,* Autumn 2020, Chapter 2: Liquidity and financing conditions and Jondeau et al. (2020).

12 The interest rate applied to these operations will remain 50 bp below the the main refinancing rate until June 2022 and up to 50 bp below the deposit facility rate for banks meeting certain criteria.

Chart 2.6

IN 2021, THE STABILISATION OF MONETARY POLICY HAS CONTINUED TO CONTRIBUTE, ALBEIT LESS SO THAN IN 2020, TOWARDS IMPROVING INTERBANK AND WHOLESALE FUNDING CONDITIONS

Money market interest rates have remained on a downward path in 2021, with a strong negative correlation between money market spreads and the deposit facility rate and rising volumes of excess liquidity and growth in purchase programmes. However, the impact of purchase programmes' on lower repo rates through collateral availability seems to have diminished in 2021. Likewise, interbank funding costs are expected to recover slightly in 2022, when some monetary policy measures are set to end, but would hold at pre-COVID levels; so too would the risk premium for Spanish banks' bond issuances. Consistent with this, the cost (and volume) of bank issuances on the wholesale market remain at historically low (high) levels.



SOURCES: Bloomberg, Thomson Reuters and Banco de España.

a The dots show the daily figure for the €STR-DFR and repo-DFR spreads, respectively (vertical axis), and the excess liquidity (horizontal axis). The post-COVID period runs from 26 June to 31 December 2020. The data for 2021 include from 1 January to 22 October 2021.
b The solid line (blue) shows the spread between the Euribor-3M (3-months forward) rate and the OIS curve 3-month forward rate, while the series of points shows the projections for this spread over different time horizons.
c The credit risk spread is calculated for unsecured debt bonds issued in euro by Spanish banks (Santander, BBVA and CaixaBank). First, the average interest rate on the secondary market for these bonds is obtained and the spread is calculated against the German Bund (risk-free) with the same maturity.
d Comparison of the issuances in each year (2020 and 2021) up to the respective month of October.

The cost of issuance for banks on the wholesale market has decreased across the board, whereas the volume of issues remains high (see Charts 2.6.3 and 2.6.4). Investors' perception of risk regarding debt issued by banks[13] is very low, as

13 Measured using the credit risk premium for unsecured bank lending (in euro), which is calculated as the spread between the interest rate on the secondary market of each listed bond and the German Bund with the same maturity.

reflected also in the wholesale funding market, where costs have decreased or held steady in 2021 for most debt instruments, particularly in the case of different types of senior debt (non-preferred, secured and unsecured). Also, the cost of issuance is less dispersed in these cases, unlike subordinated debt (Tier II) and contingent convertible bonds (CoCos), where dispersion has increased due to the divergence of costs observed between banks. The dispersion in the cost of CoCo issuance indicates that in 2020 this had been limited to larger banks, whereas in 2021, smaller banks have also been able to issue CoCos, at a higher cost. In the first ten months of 2021, banks have benefitted from these lower funding costs to increase the volume of issues of instruments directly associated with regulatory, prudential or resolution requirements, in particular, MREL-eligible instruments classified as senior non-preferred instruments.[14] However, this has not occurred in the issuance of secured or unsecured senior bonds, whose volume decreased with respect to 2020, largely owing to the current context of excess liquidity.

Bank deposits have slowed, but continue to grow at a good pace. Indeed, households and companies have moderated the pace of growth of their deposits in institutions once uncertainty has been reduced, the profitability of other financial assets has increased, there is no longer forced savings and most of the loan programme with public guarantees has been deployed. Specifically, the year-on-year rate of change of deposits from households and firms until June 2021 stood at close to 5% in business in Spain, around 2.5 pp below the rate observed in the same month of the previous year. The slowdown is being more intense among firms, which register yearly increases of just 2%. Unlike other European countries, the volume of deposits remunerated at negative rates is not material and is limited to large firms.

2.1.2 Profitability and solvency

Profitability

The Spanish banking system earned consolidated net profit of €13.8 billion in 2021 H1, up significantly on the figure for the same period of 2020. After the losses recognised by the Spanish banking sector in 2020 H1, consolidated net profit has improved by €23 billion. This translates into a return on assets (ROA) of 0.71% (up 1.2 pp from -0.5% in June 2020) and a return on equity (ROE) of 11.2% (up 18.5 pp from -7.3% in June 2020).[15]

Extraordinary gains and losses (a net loss in 2020 and a net gain in 2021) have a significant impact on this year-on-year improvement in profitability. In 2021

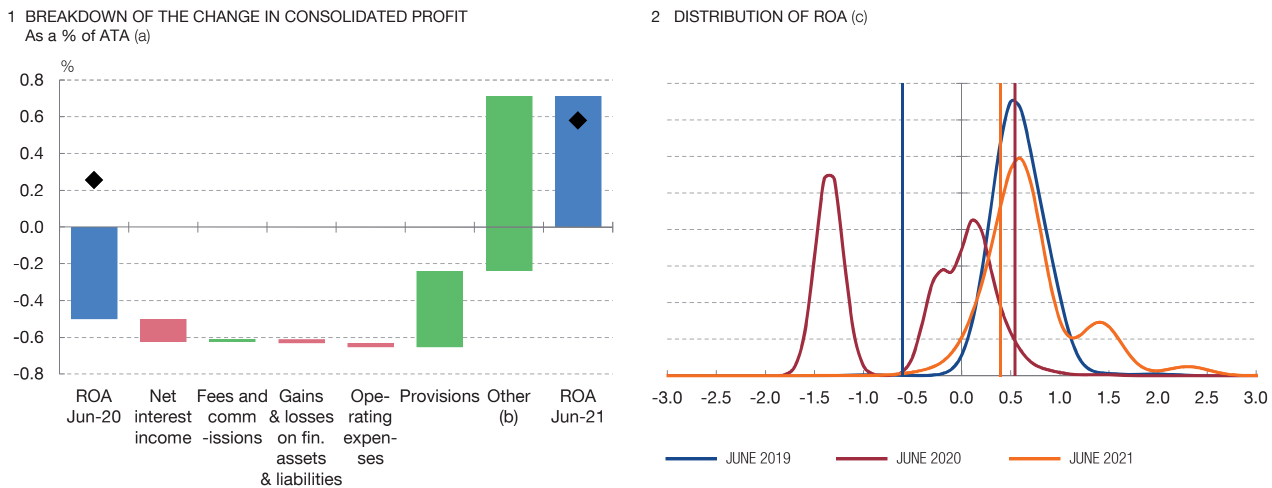
14 This category also includes CoCos and eligible subordinated debt instruments as Tier II capital.

15 In the case of ROE, the year-on-year difference also increased due to the 5% decline in average equity between June 2020 and June 2021, whereas average total assets held steadier during that period, growing by 1.9%.

Chart 2.7

THE SPANISH BANKING SECTOR'S PROFITABILITY IMPROVED SIGNIFICANTLY IN JUNE 2021 COMPARED WITH A YEAR EARLIER. THIS WAS LARGELY BECAUSE OF EXTRAORDINARY ITEMS AND LOWER IMPAIRMENT PROVISIONING

After the losses recognised in June 2020, the Spanish banking sector's profitability recovered in 2021 H1. In addition to the positive impact of the extraordinary items, lower provisioning also contributed to this improvement. The increase in profitability was widespread among banks, resulting in it standing at levels similar to those prior to the outbreak of the COVID-19 pandemic.



SOURCE: Banco de España.

a The red (green) colour of the bars denotes a negative (positive) contribution of the corresponding item to the change in consolidated profit in June 2021 compared with June 2020. The black diamonds denote the ROA excluding extraordinary items. Specifically, in June 2020: adjustments to goodwill (-€12.2 billion), the adjustment for deferred tax assets (-€2.5 billion) and the sale of an asset management business (€0.3 billion); and in June 2021: an extraordinary net gain as a result of a merger (€2.9 billion) particularly, badwill; the spin-off of an insurance company (€0.9 billion) and extraordinary restructuring costs (-€1.2 billion).

b Including, among others, the aforementioned extraordinary items.

c The chart depicts the density function of ROA for Spanish deposit institutions, weighted by average total assets. The density function is estimated by means of a kernel estimator, which enables non-parametric estimation and provides a continuous, smoothed graphic representation of the function. The vertical lines denote the ROA of the Spanish banking system as a whole in June 2019 (blue), June 2020 (red) and June 2021 (orange).

H1 there was a net gain of more than €2.5 billion, while in 2020 H1 there was a net loss of more than €14 billion.[16] Excluding these extraordinary items, the sector's ROA would have stood at 0.6%, an increase of 0.3 pp from June 2020 (which would have been 0.3%) (see Chart 2.7.1). In June 2021 the geographical distribution of the profit of Spanish banks with significant international presence returned to values similar to those of June 2019 (see Chart 2.8.1). Behind Spain, Mexico, the United States and Brazil make the biggest contribution to profit[17].

16 In 2021 H1 extraordinary gains were recognised as a result of three items: the merger of two banks (whose net value stood at €2.9 billion: badwill (€4.3 billion) plus a corporate income tax benefit (€0.6 billion), less extraordinary operating expenses stemming from the labour agreement and other integration costs (€2 billion)); the spin-off of an insurance company (€0.9 billion); and restructuring costs at the two main banks (-€1.2 billion). In 2020 H1 the extraordinary items included the negative adjustments to goodwill of the two banks with the largest international presence (-€12.2 billion), the adjustment for deferred tax assets (-€2.5 billion) and the sale of an asset management business (€0.3 billion).

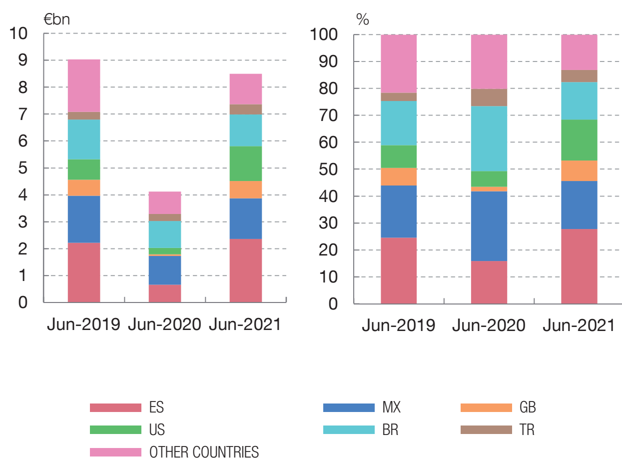
17 Earnings in local currency recovered between June 2020 and June 2021 in the five geographical areas. In the case of Brazil, Mexico and the United Kingdom, the improvement recorded in that period was partly due to the appreciation of the local currencies against the euro. The profit measured in euro diminished partially in the United States and Turkey due to the appreciation of the euro against their local currencies.

Chart 2.8

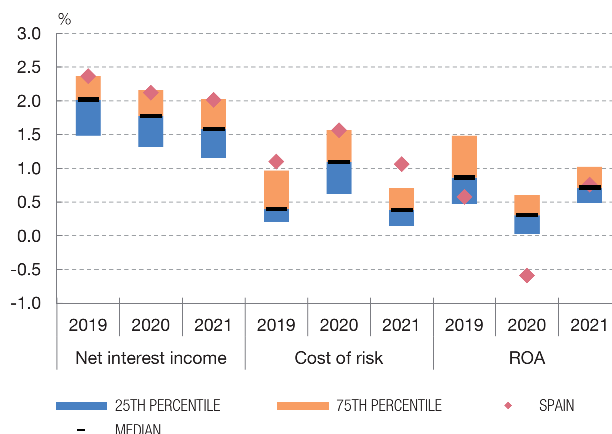
THE GEOGRAPHICAL DISTRIBUTION OF SPANISH BANKS' PROFIT IS APPROACHING ITS PRE-CRISIS LEVEL AND COMPOSITION. MEANWHILE, THE PROFITABILITY OF THE EUROPEAN BANKING SECTOR AS A WHOLE HAS IMPROVED, UNDERPINNED BY THE LOWER COST OF RISK

The significant decline in cost of risk (provisioning) led to an improvement in the sector's profitability at European level, despite net interest income decreasing for European banks between June 2020 and June 2021. In June 2021 the amount and geographical distribution of the profit of banks with significant international activity returned to values similar to those of June 2019.

1 GEOGRAPHICAL DISTRIBUTION OF THE PROFIT ATTRIBUTABLE TO THE PARENT EXCL. EXTRAORDINARY ITEMS OF BANKS WITH SIGNIFICANT INTERNATIONAL ACTIVITY (a)



2 THE MAIN PROFITABILITY VARIABLES: A EUROPEAN COMPARISON (b)



SOURCES: European Banking Authority and Comisión Nacional del Mercado de Valores.

a Four banks with significant international activity are included in this chart and non-recurring items in the period 2019-2021 are excluded.

b Percentiles calculated based on the aggregate financial ratios published by the EBA for each of the banking systems in the EU; the United Kingdom is excluded from the sample of countries in the three years considered. Net interest income is defined as interest income less interest expense divided by interest earning assets. Cost of risk is defined as provisioning charges divided by gross lending.

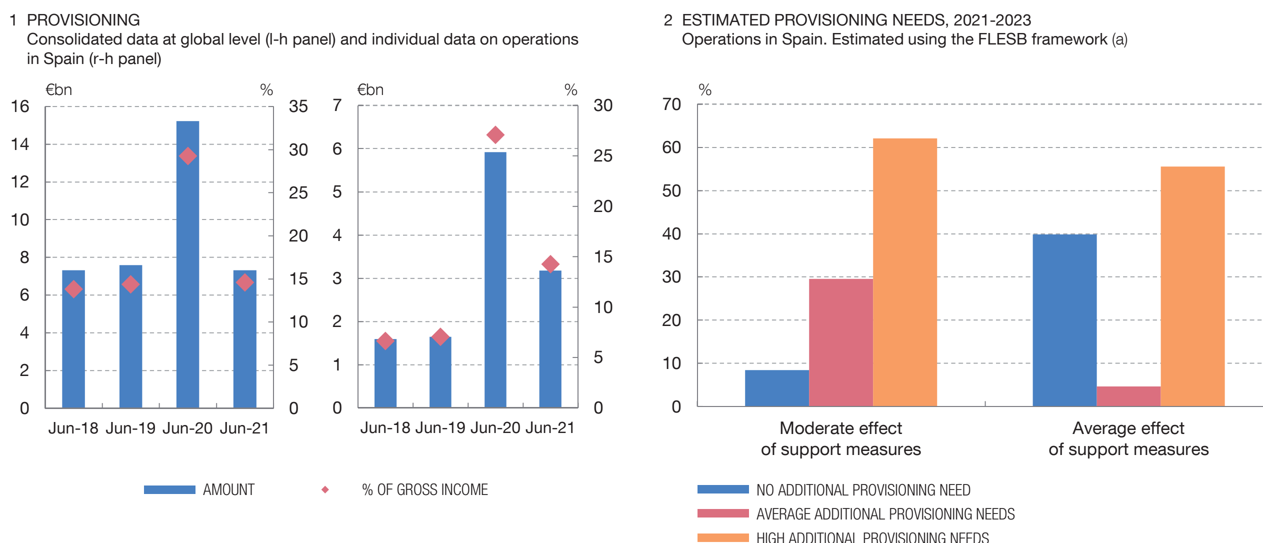
In 2021 H1 the profitability of our European peers' banking systems also improved, with it close to returning to pre-pandemic levels. Despite other European banks also seeing net interest income decrease between June 2020 and June 2021, the steep decline in impairment provisioning led to improved profitability in the sector at European level (see Chart 2.8.2). In recent years, Spanish banks' net interest income and impairment provisioning have been higher than those of their European peers.

Profitability has improved across the board, and the sector's pre-pandemic profitability levels have been resumed. Compared with the previous year, the distribution of ROA in June 2021 has shifted markedly to the right. This reflects the widespread improvement in profit in the sector. This upturn was more pronounced at a group of banks that fared worse in June 2020. Consequently, the distribution of ROA in June 2021 is similar to the pre-pandemic distribution (see Chart 2.7.2). Even so, it should be borne in mind that the banking sector's low profitability, both in Spain and in the main European countries, was already one of the sector's main challenges before the pandemic broke.

Chart 2.9

PROVISIONING CHARGES IN 2021 H1 FELL TO HALF THE AMOUNT RECOGNISED IN THE SAME PERIOD OF 2020. THE DECLINE WAS LESS STEEP IN OPERATIONS IN SPAIN

Provisioning charges recognised in 2021 H1 are 50% lower than those recognised in 2020 H1 as a result of the improved outlook for the potential impact of the COVID-19 pandemic on credit quality. At consolidated level, this decrease resulted in provisioning returning to pre-pandemic levels. Provisioning charges associated with operations in Spain remain above their pre-pandemic levels. The estimated additional provisioning needs over the coming years are uneven among banks and depend, among other factors, on the degree of credit impairment of the loan portfolio guaranteed by the ICO.



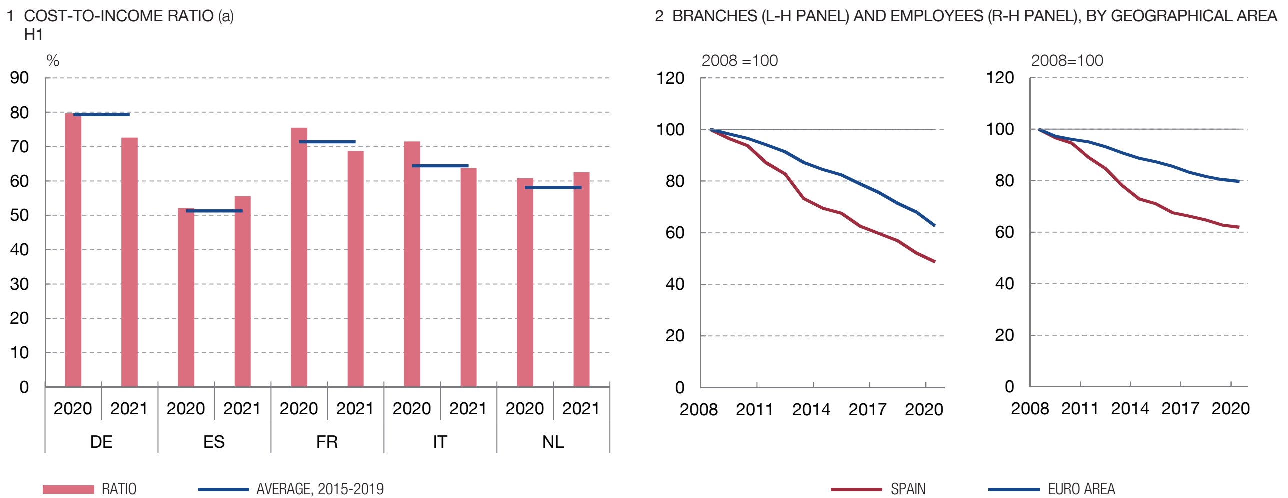
SOURCES: Banco de España and European Systemic Risk Board.

a The estimated provisioning charges for the period 2021-2023 are obtained from the baseline scenario used in the FLESB stress-testing exercise. Banks are grouped into three categories, based on the volume of estimated provisioning charges relative to the 2021 provisioning effort. The bars depict the aggregate lending of each category of bank as a percentage of total lending. The first group (no additional provisioning need) comprises banks whose 2021 provisioning effort (those provisions recognised for 2021 H1, multiplied by two to extrapolate them for the entire year) is sufficient to cover the estimated provisioning requirements for 2021-2023 under the FLESB framework. The second group (average additional provisioning needs) is formed by banks whose provisioning effort in 2021 is between 50% and 100% of the provisioning charges estimated for 2021-2023. The third group (high additional provisioning needs) consists of banks whose provisioning charges in 2021 are below 50% of the provisioning charges estimated for 2021-2023. For the estimated provisioning over the entire 2021-2023 period, two scenarios are considered in relation to the effect of the support measures (essentially the ICO guarantee scheme): moderate and average. Under the moderate scenario, the quality of credit guaranteed by the ICO is similar to that of the overall business lending portfolio. Meanwhile, under the average scenario credit quality is at a midway point between the moderate scenario and a maximum scenario where the guarantees are used in full to absorb the poorest quality credit (see Section 2.1.3 and Chart 2.17).

Lower impairment provisioning – which, at consolidated level, returned to pre-pandemic levels – was behind the improvement in ordinary profit. Consolidated provisioning charges for impairment losses on financial assets fell by 50% to stand at levels similar to pre-pandemic ones (see Chart 2.9.1). Provisioning in operations in Spain decreased by almost as much as consolidated provisioning, but remained above pre-pandemic levels. The potential materialisation of latent risks and their impact on credit quality might require some banks to recognise additional provisions over the coming years. This is especially true under the least-favourable scenario for the effectiveness of the support measures rolled out in response to the pandemic (see Chart 2.9.2). The scale of this additional effort is markedly uneven across banks.

Chart 2.10
SPANISH BANKS MAINTAIN THE COST-TO-INCOME RATIO ADVANTAGE OVER THEIR EUROPEAN PEERS

Broadly speaking, the cost-to-income ratio of our peers' banking systems has improved after the downturn recorded in 2020 H1 due to the period's atypical effects. The cost-to-income ratio of Spanish institutions in 2021 is still affected by extraordinary negative factors. From a structural standpoint, the number of branches continues to decrease throughout the euro area, while the adjustment to employment has stalled.



SOURCES: European Central Bank and European Banking Authority.

a The cost-to-income ratio is defined as the ratio between operating expenses and gross income, such that higher (lower) values refer to lower (higher) efficiency.

Gross income fell in 2021 H1 compared with the same period a year earlier, as the decline in net interest income was not offset by the improvement in net fee and commission income (see Annex 2). Net interest income fell 5.1% year-on-year, while net fee and commission income increased 4%. The more than 10% drop in gains and losses on financial assets and liabilities also contributed to the decline in gross income. The operating expenses of the sector as a whole rose. This led to a decline in net operating income and to an increase of almost 3 pp in the cost-to-income ratio (from 48.8% in June 2020 to 51.7% in June 2021). However, excluding the extraordinary costs associated with the merger of two banks during this period (see footnote 16), net operating income would have fallen less and the cost-to-income ratio would have improved slightly. In any event, the efficiency advantage over our European peers' banking systems has been retained (see Chart 2.10.1). From a structural standpoint, the number of branches continue to fall across the euro area, with the employment level remaining more stable (see Chart 2.10.2).

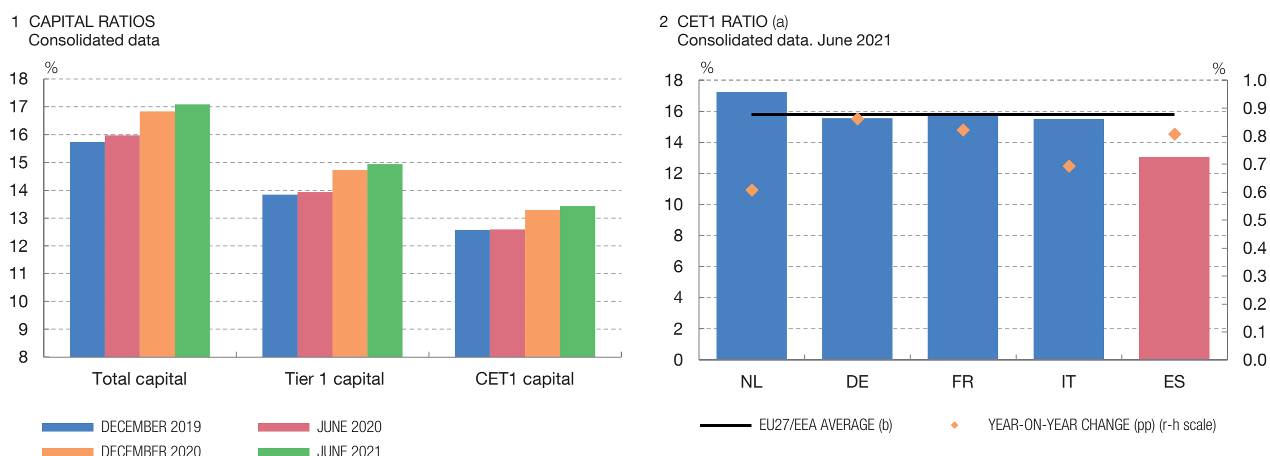
Solvency

Capital ratios improved slightly in 2021 H1, and significantly over the last 12 months (see Chart 2.11.1). This was due both to the increase in capital levels (the ratios' numerators) and to the decline in risk-weighted assets (RWAs) (the ratios'

Chart 2.11

THE AGGREGATE CAPITAL RATIOS OF THE SPANISH BANKING SECTOR INCREASED SLIGHTLY IN 2021 H1

The CET1 ratio increased by 83 bp between June 2020 and June 2021 to stand at 13.4%, as a result both of the increase in capital and the decrease in RWAs. Most of this increase (69 bp) arose in 2020 H2 and was largely due to the measures adopted by the authorities to mitigate the effects of the health crisis. The CET1 ratio of Spanish deposit institutions remains the lowest of the main European countries, while year-on-year growth in the ratio was in line with the growth recorded by our peers.



SOURCES: European Banking Authority and Banco de España.

a Data for Spain are in red.
b EBA data include Iceland.

denominator). Two distinct stages can be identified. The improvement in the common equity tier 1 (CET1) ratio was more pronounced between June 2020 and December 2020, when it rose by 69 bp. This was the result of growth of 3.6% in CET1 and the 1.8% decline in RWAs. The measures implemented by the authorities to mitigate the impact of the pandemic largely explain these developments.[18] The increase in the CET1 ratio moderated between December 2020 and June 2021 (amounting to 14 bp) due to lower growth in CET1 in that period (0.4%) and a smaller decline in RWAs (0.7%). A similar pattern is observed for the Tier 1 and total capital ratios (see Chart 2.11.1).[19]

The increase over the last 12 months in the Spanish banking sector's CET1 ratio was in line with that of the main European countries. The CET1 ratio of Spanish banks continued to trail that of the main European countries and remained around 2.7 pp off the European average (see Chart 2.11). This difference vis-à-vis the European average existed prior to the COVID-19 crisis and owes partly to structural factors such as the greater use of the standardised approach by Spanish banks.

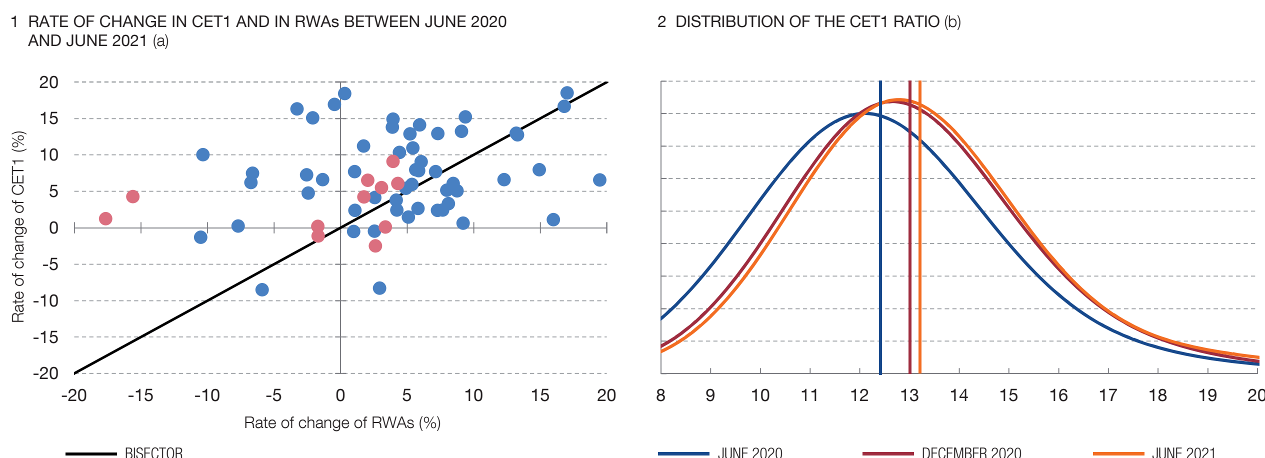
18 The loss recorded in December 2020 did not lead to lower banks solvency, largely because the significant negative extraordinary items (e.g. goodwill impairment) affect balance sheet items that are not counted towards banks' prudential capital.

19 The bringing forward of the phase-in schedules of the Basel III framework contributed to this moderation in the growth of capital ratios. In fully loaded terms, the CET1 ratio grew most (27 bp in 2021 H1) from 12.77% in December 2020 to 13.04% in June 2021.

Chart 2.12

CET1 INCREASED ACROSS THE BOARD, WHILE THE DECLINE IN RWAs MOSTLY AFFECTED SOME SIGNIFICANT INSTITUTIONS

Most banks increased their volume of CET1 between June 2020 and June 2021. Despite the overall decrease in RWAs in the Spanish banking sector, most banks increased their RWAs over the last year, with a small but significant number of banks reducing them. The shift towards more positive values in the distribution of the CET1 ratio was above all recorded between June 2020 and December 2020.



SOURCE: Banco de España.

a The red dots represent banks directly supervised by the SSM. The dots above the bisector depict increases (decreases) in the volume of CET1 over the last year that are higher (lower) than the increase (decrease) in the volume of RWAs. Consequently, they refer to increases in the CET1 ratio between June 2020 and June 2021. The opposite applies for the dots beneath the bisector.

b The chart depicts the CET1 ratio density function for Spanish deposit institutions, weighted by the amount of RWAs. The density function is estimated using a kernel estimator, which enables non-parametric estimation and provides a continuous, smoothed graphic representation of the function. The vertical lines denote the CET1 ratio for the Spanish banking system as a whole in June 2020 (blue), December 2020 (red) and June 2021 (orange).

Indeed, if solvency is measured in terms of the leverage ratio, Spain's significant institutions (5.7%) are in line with the European average.

CET1 increased across the board, whereas the change in RWAs was more uneven (see Chart 2.12.1). Indeed, most banks recorded a rise in RWAs. However, the total amount of RWAs in the system fell due to the notable decline at some of the bigger banks[20] and, in particular, to the divestment in the United States by one of the banks with the largest international presence. Overall, the CET1 ratio has improved, which is reflected by the shift of its distribution to the right (see Chart 2.12.2).

2.1.3 Forward-looking assessment of the Spanish banking system's resilience

Methodology applied. The FLESB framework

The Banco de España has applied its own FLESB methodological framework to measure the resilience of Spanish banks in terms of solvency and liquidity.

20 Indeed, while for banks directly supervised by the SSM RWAs decreased by 2.9% between June 2020 and June 2021, for the rest of the system they rose by 3.5%.

The FLESB framework enables analysis of different macro-financial scenarios using a set of models and hypotheses developed in-house ("top-down" approach), underpinned by the granular information available through regulatory and supervisory reporting. As with last year's exercise, this year's also included the effect of the economic policy measures to mitigate the impact of COVID-19, taking into account the roll-out of the ICO guarantees since the cut-off date for the previous exercise.[21] Other developments include the consideration of the possible latent credit risk due to the combination in 2020 of a severe economic shock and important mitigating measures, in addition to the more granular modelling of credit risk in lending to business. The methodological fundamentals and main characteristics of this exercise are summarised below.

The macroeconomic scenarios used match those designed for the 2021 stress test coordinated at European level by the EBA.[22] The baseline scenario covers the most likely economic developments over the exercise's horizon (2021-2023) and is used to assess the banking system's solvency under normal conditions. The adverse scenario includes the materialisation of the main risks facing the European economy identified by the ESRB. These are related to the uncertainty over the course of the COVID-19 pandemic and lower confidence, which would trigger a protracted contraction in economic activity and low and even negative interest rates for longer.

For the Spanish economy (see Table 2.1), the baseline scenario reflects a recovery, resulting in cumulative real GDP growth over the three years of 13.2%. The adverse scenario envisages a cumulative contraction of 3.2%. Noteworthy among the other macroeconomic variables is the severity of developments in the unemployment rate (21.2% on average over the three years) and house prices (a cumulative decline of 17.0%) under the adverse scenario. Interest rates do not show signs of being significantly stressed, since the scenarios include the expectations that the monetary policy stance will remain expansionary. The paths of the macroeconomic variables for the other countries also match those included in the EBA 2021 exercise (see Chart 2.13). The baseline scenario reflects a widespread recovery, whereas the adverse scenario envisages a persistent contraction in activity, both in advanced and in emerging market economies. The FLESB also includes other variables of interest that do not feature in the EBA's scenarios, such as credit developments in Spain and in the geographical areas where Spanish banks have a significant presence. These are projected using the Banco de España's in-house models in a manner consistent with the other variables in each scenario.

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21 The first scheme (for guarantees totalling €100 billion) was approved in March 2020 (Royal Decree-Law 8/2020). It was then increased in July (Royal Decree-Law 25/2020) by a further €40 billion.

22 Although the scenarios used in this year's FLESB are the same as those used by the EBA in the stress-testing exercise conducted at European level, the assumptions, methodology, estimation of parameters and scope of application (institutions stressed and risks analysed) differ. Because of these differences, the results of the two exercises are not directly comparable.

Table 2.1
MACROECONOMIC SCENARIOS FOR SPAIN IN THE STRESS TEST

	Baseline scenario 2021-2023	Adverse scenario 2021-2023
GDP, cumulative growth (%)	13.2	-3.2
Unemployment rate (% of labour force), average	16.0	21.2
House prices, cumulative growth (%)	5.4	-17.0
Lending to households for house purchase, cumulative growth (%)	-0.5	-12.3
Consumer credit and other lending to households, cumulative growth (%)	-0.9	-14.5
Lending to business, cumulative growth (%)	-5.3	-15.6
12-M interbank interest rate, average (%)	-0.5	-0.6
10-year sovereign bond yield, average (%)	0.3	1.1

SOURCE: Banco de España.

The portfolios of business loans are broken down by sector of activity and firm size to obtain a more granular estimate of the credit risk parameters. Specifically, the sectoral breakdown of those credit portfolios has been enhanced to a level similar to two-digit Spanish National Classification of Economic Activities (CNAE by its Spanish initials) codes. In addition to the macroeconomic variables of the scenarios, this more granular treatment factors in paths for real gross value added for each sector and firms' various financial ratios, which are consistent with the scenarios in the projection horizon.[23]

The exercise also envisages the possible future deterioration in credit quality, which did not materialise in 2020 because of the positive effect of the economic policy measures implemented in response to the COVID-19. These measures have largely mitigated the economic effects of the pandemic. Yet they have also put off some of the financial consequences of the crisis until the future, when households and firms will have to repay debts incurred in 2020 to meet liquidity needs stemming from the crisis.

To facilitate their interpretation, the results are presented in three groups of banks, as the business models and sources of risk vary across the different groups. The first group comprises Spanish banks directly supervised by the SSM with the most significant international presence.[24] The second group consists of the other banks under the direct supervision of the SSM. Lastly, the third group includes

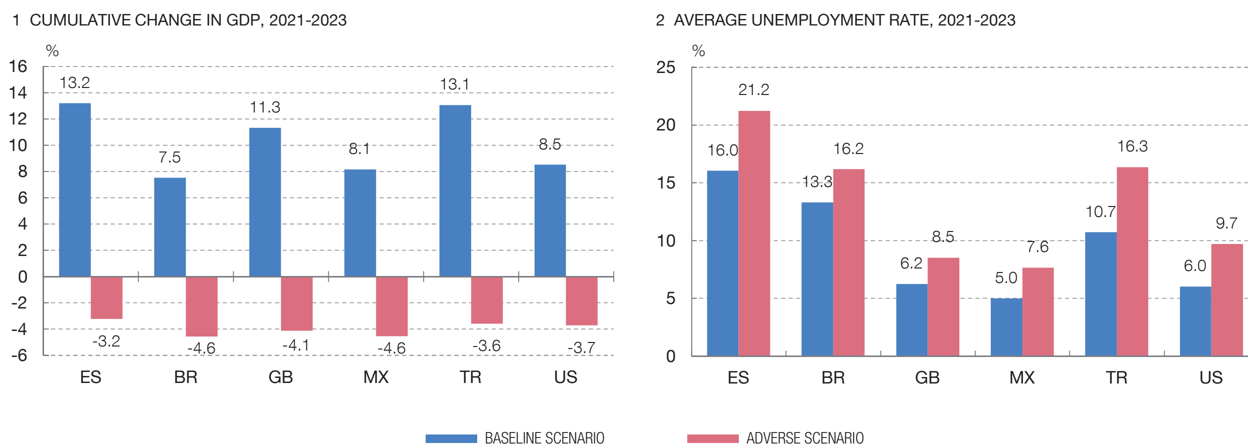
23 The paths of real gross value added for each sector are generated using the Banco de España's in-house sectoral projection models, which are consistent with the aggregate FLESB scenarios. The financial ratios are projected for each firm size and sector using models that consider the macroeconomic scenarios and real gross value added paths for each sector.

24 Among the entities with significant international activity, this group includes the three in which it is of greatest importance and more extended in time.

Chart 2.13

IN THE GEOGRAPHICAL AREAS WHERE SPANISH BANKS HAVE SIGNIFICANT PRESENCE, THE BASELINE SCENARIO ENVISAGES A WIDESPREAD RECOVERY, WHEREAS THE ADVERSE SCENARIO REFLECTS A PROLONGATION OF THE CONTRACTION TRIGGERED BY THE COVID-19 PANDEMIC

The scenarios for the other geographical areas where Spanish banks have significant activity are also consistent with those used in the EBA stress-testing exercise conducted at European level. The baseline scenario assumes a widespread recovery, whereas the adverse scenario envisages the materialisation of risks to financial stability related to the uncertainty surrounding the course of the COVID-19 pandemic and a drop in confidence causing a prolongation of the downturn.



SOURCE: Banco de España.

smaller banks with no significant international presence which are under the direct supervision of the Banco de España. In all cases, the impacts in terms of the fully loaded CET1 ratio are shown.

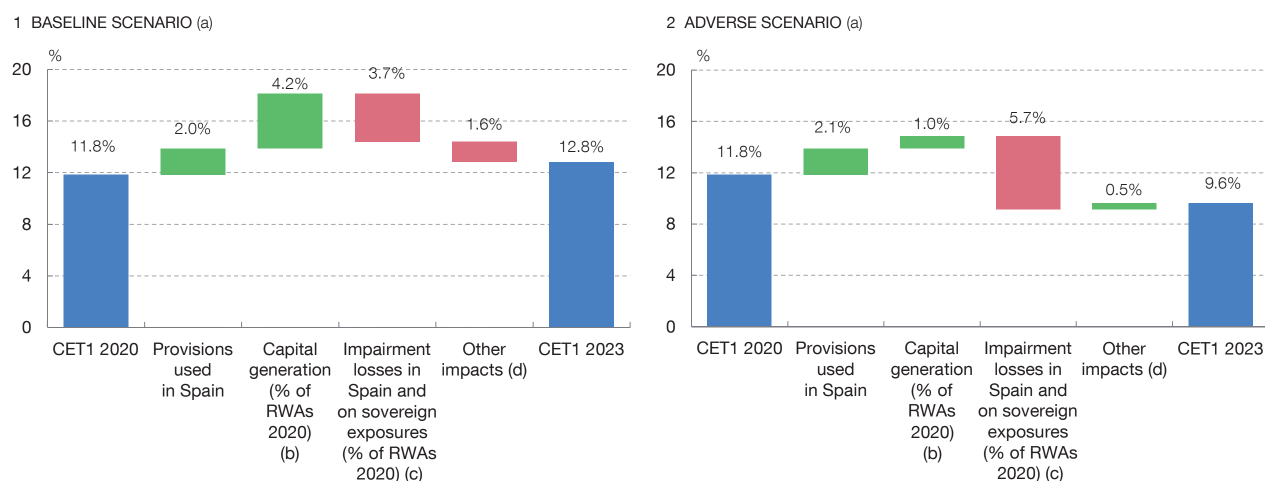
Results of the stress tests

For the group of banks with greater international activity supervised by the SSM an increase of 1 pp and a decrease of 2.2 pp in their CET1 ratio were projected under the baseline and adverse scenarios, respectively (see Chart 2.14). This group's starting CET1 ratio was 11.8 pp, lower than that of the other two groups of banks. Under the baseline scenario, available provisions to cover impairment losses in Spain (2% of RWAs) and the capacity to generate new capital (4.2% of RWAs) offset the volume of impairment losses in operations in Spain and sovereign exposure valuation adjustments (overall, 3.7% of RWAs). As a result of the global recovery forecast over the period 2021-2023, operations outside Spain help increase net profit under the baseline scenario. Conversely, the other impacts make a negative contribution (1.6% of RWAs) to solvency, due to the net effect of other gains and losses, the effect of taxes and profit distributions. The final result is a CET1 ratio of 12.8 pp in 2023. Under the adverse scenario, the continued contraction in activity results in a significantly lower generation of capital (1% of RWAs). This is largely because of the greater impairment losses in operations outside Spain and, in

Chart 2.14

THE BANKS WITH THE LARGEST INTERNATIONAL PRESENCE REMAIN FIRMLY RESILIENT, EVEN TO THE CONTINUED GLOBAL DOWNTURN ENVISAGED UNDER THE ADVERSE SCENARIO

Banks with significant international exposure remain notably resilient, despite the relatively high volume of impairment losses in operations in Spain under both scenarios. Under the baseline scenario the use of provisions and the generation of capital offset the impairment losses, while under the adverse scenario the additional impairment and lower capital-generation capacity lead to a decrease in the 2023 CET1 ratio compared with the starting ratio. However, it remains above the minimum requirement.



SOURCE: Banco de España.

a The red (green) bars indicate a negative (positive) contribution of the corresponding item to the change in the CET1 ratio at the end of the projection horizon (2023) compared with the start of the exercise (2020).
b Generation of loss-absorbing capital in the case of banks with significant international activity includes the net operating income for Spain and net profit in operations abroad.
c Impairment losses on loans and foreclosed assets in operations in Spain and the impact on capital of a potential deterioration of sovereign exposures at consolidated level.
d Other consolidated gains and losses, tax effects, exchange differences, dividend distribution and changes in RWAs.

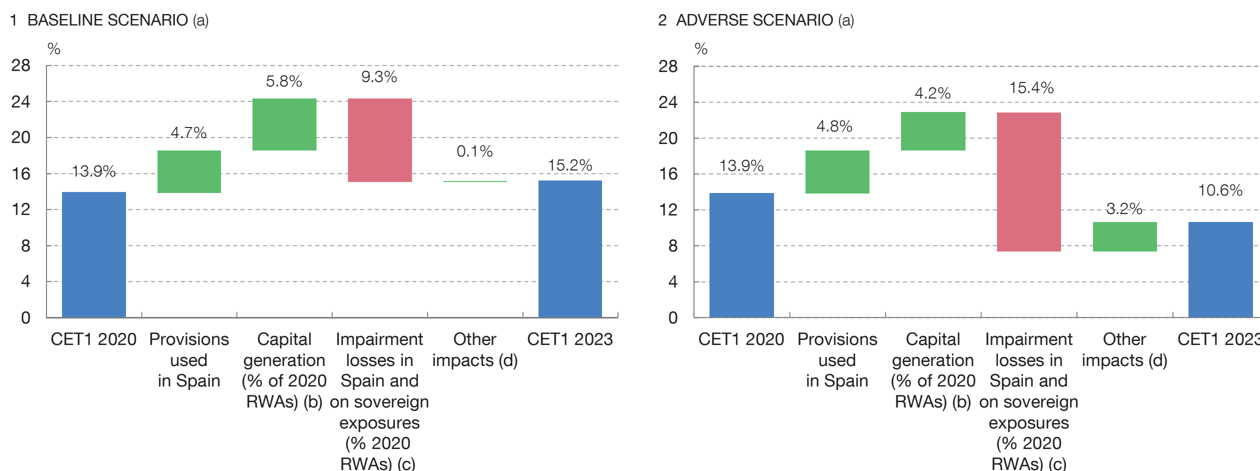
the same vein, impairment losses in Spain totalling 5.7% of RWAs. Under the adverse scenario, the CET1 ratio stands at 9.6% at the end of the projection horizon.

For the other banks supervised by the SSM, an increase of 1.3 pp and a decrease of 3.3 pp in the CET1 ratio are estimated under the baseline and adverse scenarios, respectively (see Chart 2.15). This group's CET1 ratio at the start of the exercise (13.9%) was better than that of banks with significant international activity. Under the baseline scenario, impairment losses in Spain (9.3% of RWAs) are significantly higher than in the case of banks with significant international activity because of the lesser geographical distribution of their risks. Provisions (4.7%) and the generation of net operating income (5.8%) more than suffice to absorb the impairment losses, thereby raising the CET1 ratio to 15.2%. Under the adverse scenario, generation of capital falls vis-à-vis the baseline scenario (4.2% of RWAs) and impairment losses increase (15.4% of RWAs). This results in solvency being undermined, despite the positive contribution (3.2%) of the other impacts, associated with the lower lending projected under this scenario. Capital consumption under the adverse scenario is higher than for the other groups of banks, resulting in a CET1 ratio of 10.6% in 2023.

Chart 2.15

OTHER SSM BANKS WOULD RECORD RELATIVELY LARGE IMPAIRMENTS RELATIVE TO THEIR LOSS-ABSORBING CAPITAL. NONETHELESS, THE ENDING CET1 RATIO IS SOUND, PARTLY OWING TO THE FAVOURABLE STARTING POSITION AND RWA REDUCTION

The other SSM banks record a relatively high volume of impairment losses relative to their loss-absorbing capital in the business in Spain under both scenarios. Under the adverse scenario, the use of provisions and generation of net operating income are insufficient to offset the losses. However, the end-exercise solvency position is notable, owing to a higher starting CET1 ratio and a degree of deleveraging, captured in the RWA reduction included in other impacts.



SOURCE: Banco de España.

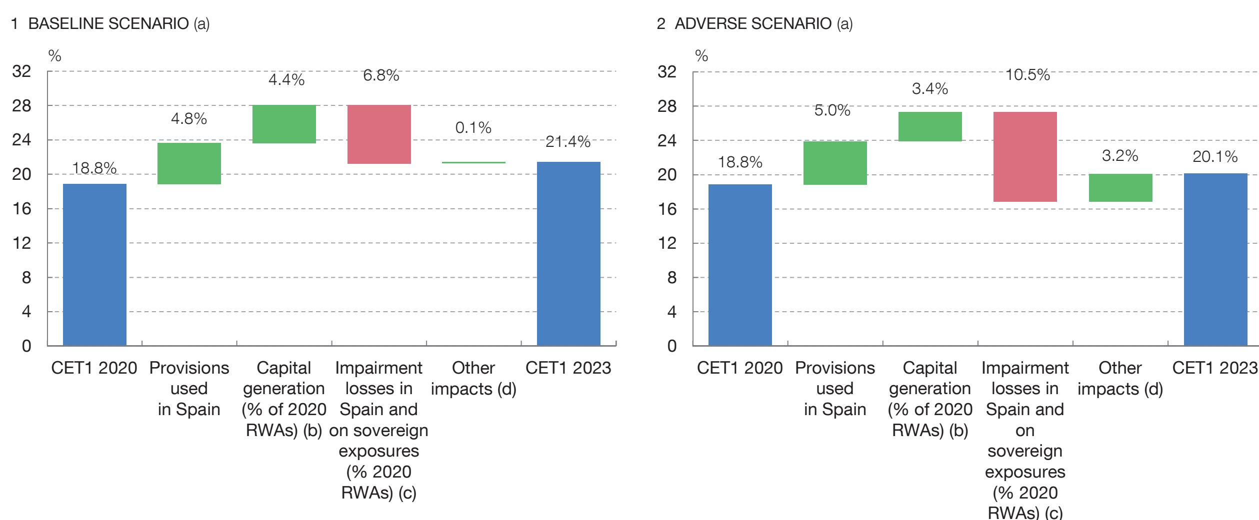
a The red (green) colour of the columns indicates a negative (positive) contribution of the item concerned to the change in the CET1 ratio at the end of the projection exercise (2023) vis-à-vis the start of the exercise (2020).
b The generation of loss-absorbing capital for other SSM banks mainly includes net operating income in Spain, with a very small contribution from net profit from foreign operations.
c Impairment losses on loans and foreclosed assets in business in Spain, and the impact on capital of the potential impairment on sovereign exposures at consolidated level.
d Other consolidated gains and losses, tax effects, exchange differences, dividend distribution and changes in RWAs.

The CET1 ratio of the institutions supervised directly by the Banco de España improves under both the baseline and adverse scenarios, rising 2.6 pp and 1.3 pp, respectively (see Chart 2.16), **with the latter result largely stemming from the institutions' deleveraging.** This third group of institutions has a higher starting CET1 ratio (18.8 pp) than the other groups and a simpler and more conservative business model in terms of products (a higher relative share of mortgage loans and government debt holdings). They also operate in a reduced geographical area. Under the baseline scenario, existing provisions (4.8% of RWAs) and capital generated (4.4% of RWAs) more than offset the impairment losses (6.8% of RWAs). This gives rise to an end-exercise aggregate CET1 ratio of 21.4%. Under the adverse scenario, the generation of new loss-absorbing capital declines (3.4% of RWAs) and impairment losses increase (10.5% of RWAs). However, this set of institutions ends the exercise with higher solvency on account of other effects (3.2% of RWAs). Under the adverse scenario, the CET1 ratio improvement is primarily linked to the institutions' deleveraging, given that credit – which accounts for a large share of these institutions' exposures – shrinks. Thus, under the adverse scenario the CET1 ratio stands at 20.1% in 2023, the highest value of the three groups.

Chart 2.16

INSTITUTIONS SUPERVISED DIRECTLY BY THE BANCO DE ESPAÑA, WHICH START WITH A HIGH CAPITAL LEVEL AND EXPOSURE TO LOWER-RISK ASSETS, EXPERIENCE SIGNIFICANT IMPAIRMENT. HOWEVER, THIS IS OFFSET BY PROVISIONS, CAPITAL GENERATION AND DELEVERAGING UNDER BOTH SCENARIOS

The CET1 ratio of the institutions supervised directly by the Banco de España improves under both the baseline and adverse scenarios, despite also deteriorating significantly. As well as starting out with a substantially higher CET1 ratio, the impairment losses are offset by the effect of provisions, capital generation and the RWA reduction.



SOURCE: Banco de España.

a The red (green) colour of the columns indicates a negative (positive) contribution of the item concerned to the change in the CET1 ratio at the end of the projection exercise (2023) vis-à-vis the start of the exercise (2020).
b The generation of loss-absorbing capital is determined by net operating income in Spain.
c Impairment losses on loans and foreclosed assets in business in Spain, and the impact on capital of the potential impairment on sovereign exposures at consolidated level.
d Other consolidated gains and losses, tax effects, exchange differences, dividend distribution and changes in RWAs.

These results reflect Spanish deposit institutions' considerable aggregate resilience against a persistent downturn, although there is some cross-institution heterogeneity. All three sets of institutions end the exercise with CET1 ratios above 9% under both the baseline and adverse scenarios. However, not all institutions end the exercise in the same situation and heterogeneous behaviour in terms of capital charges is observed under the adverse scenario. In any case, the distribution of the CET1 ratio across banks under the adverse scenario does not suggest the need for extensive additional supervisory intervention, in line with the results of other stress tests at European level, such as the EBA exercise discussed in this chapter. Moreover, the results are subject to the marked uncertainties facing the banking sector. Caveats specific to the current environment should also be highlighted. For instance, the possibility of more adverse adjustments in financing conditions than envisaged under the scenarios, were the growing risk of financial market correction to intensify and materialise.

Spanish institutions also had a robust liquidity position at end-2020, supported by the ECB's monetary policy stance. As in previous years, a stress test was conducted on the liquidity coverage ratio (LCR), with Spanish institutions maintaining appropriate liquidity levels comparable to previous tests.

Granular assessment of the effect of State guarantees and firms' PDs

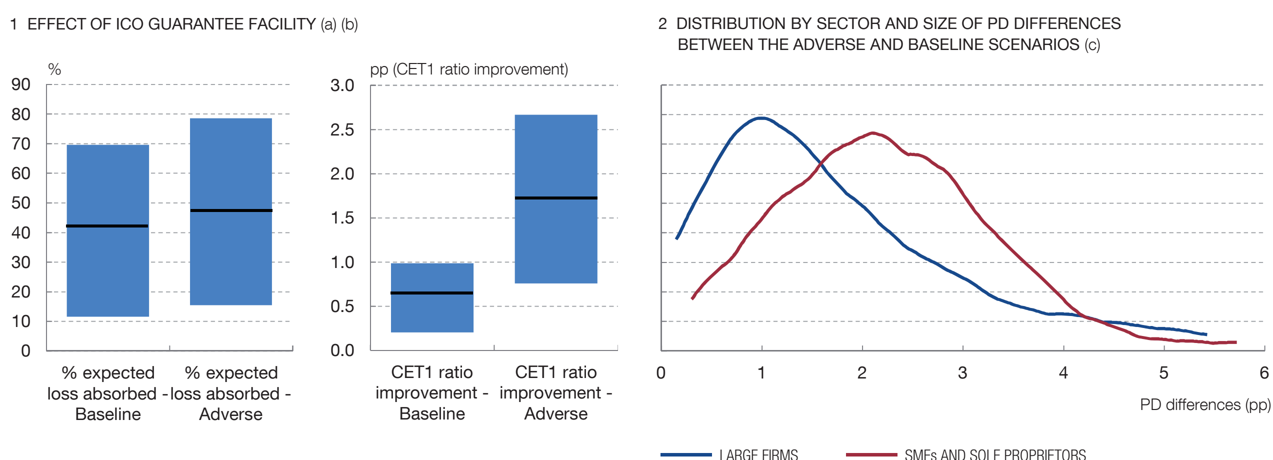
The exercise factors in the mitigating effect on Spanish institutions' solvency had by the public guarantee scheme for business lending. Since the scale of this effect remains uncertain, an impact range has been estimated taking into account various assumptions regarding the probability of default of the guaranteed loans (see Chart 2.17.1). The bottom end of the range assumes that the expected loss is equal to the average for the corporate credit portfolio; the top end assumes that the guaranteed loans are concentrated among higher-risk debtors. The previous section's findings are based on the impact of the ICO guarantees standing at the midpoint of this range. It should be borne in mind that the more impairment losses the programme is able to absorb, the greater its budgetary cost.

The mitigating effects of the State guarantee scheme for business lending include reducing the loss given default, but also lowering the risk weights of

Chart 2.17

ICO GUARANTEES LIMIT THE IMPACT ON CAPITAL OF LOAN LOSSES. THIS IS PARTICULARLY TRUE UNDER THE ADVERSE SCENARIO, WHICH PRESENTS AN UNEVEN CREDIT QUALITY IMPAIRMENT RELATIVE TO THE BASELINE SCENARIO ACROSS FIRMS OF DIFFERENT SIZE AND SECTOR

State guarantees for corporate credit have a positive impact on the CET1 ratio under both scenarios, particularly the adverse scenario. The more granular treatment of corporate credit portfolios means risk is captured based on sensitivity to the economic cycle and specific potential shocks that may affect each sector and firm size.



SOURCE: Banco de España.

a The effect of the guarantee facility under an intermediate assumption, together with the restrictions on profit distribution and the impact of TLTROs, are incorporated into the main analysis, the results of which are set out in Charts 2.14, 2.15 and 2.16.

b Shown is the range of the measure's impact on the expected loss of the corporates portfolio (left panel) and on the CET1 ratio (right panel), depending on the assumptions regarding the credit quality of loans extended to firms and sole proprietors in Spain under the ICO guarantee facility. The minimum effect assumes that the expected loss is equal to the average of the corporate lending portfolio, while the maximum effect assumes that NPL inflows are primarily concentrated among guaranteed loans. The black line denotes the midrange effect.

c Probability of default (PD) is defined as the probability of transitioning from performing status to non-performing status in a 12-month period. This probability is estimated using a model that links observed PD to the firms' macroeconomic variables and financial ratios. The chart shows the density function of the difference (in pp) between the PD estimated for each sector under the adverse scenario vis-à-vis the baseline scenario. This is estimated for each bank, but the weighted average for each sector is shown. The weighting is based on number of holders. The density function is approximated by means of a kernel estimator, which enables non-parametric estimation and provides a continuous, smoothed graphic representation of the function.

the loans. The risk weight of the guaranteed portion of the loans granted under the scheme are lowered to the 0% risk weight assigned to sovereign exposures. In the event of default, the loss is assumed proportionally by the State. Thus, under the baseline scenario the assumptions regarding the guaranteed loans' credit quality would result in the guarantees absorbing between 11.5% and 69.5% of the expected loss (midpoint of 40.5%), while under the adverse scenario the range is from 15.4% to 78.5% (midpoint of 47%).[25] The impact on the CET1 ratio at the midpoint would be 0.6 pp and 1.7 pp under the baseline and adverse scenario, respectively.

The firms' characteristics (size, sector, etc.) have a bearing on the PDs projected for the loans. Hence, under the adverse scenario the increase in PD relative to the baseline scenario is larger for small and medium-sized enterprises (see Chart 2.17.2). Likewise, much cross-sector heterogeneity is observed in the difference between PDs under the baseline and adverse scenarios.

Results of the EU-wide stress test published by the European Banking Authority

The results obtained by the EBA for 50 banks in the European Union and the European Economic Area show a CET1 capital ratio increase under the baseline scenario and a significant contraction under the adverse scenario. Under the baseline scenario, this ratio would rise from 15% (fully loaded at end-2020) to 15.8% in 2023 (see Chart 2.18.1). The Spanish institutions participating in the exercise[26] would, under this scenario, record a far sharper ratio increase (2.2 pp), rising from 11.9% (fully loaded in December 2020) to 14.1% at the end of the projection horizon. Under the adverse scenario the participating institutions would, overall, see their CET1 capital ratio fall by 4.9 pp, placing it at 10.2% of RWAs at the end of the exercise. The reduction is smaller for Spanish banks (of 2.9 pp to 9%). Thus, Spanish banks show greater resilience to the adverse scenario and greater capacity to generate capital under the baseline scenario than their European peers, despite starting out with a lower capital ratio. This was also true in the 2018 EU-wide stress tests coordinated by the EBA.

Spanish banks face one of the smallest adverse impacts on capital ratios under the adverse scenario. A country-level analysis of the results (see Chart 2.18.2) places Spanish banks (together with those of Poland and Norway) among those that experience a smaller capital ratio impact. At the other end of the scale are

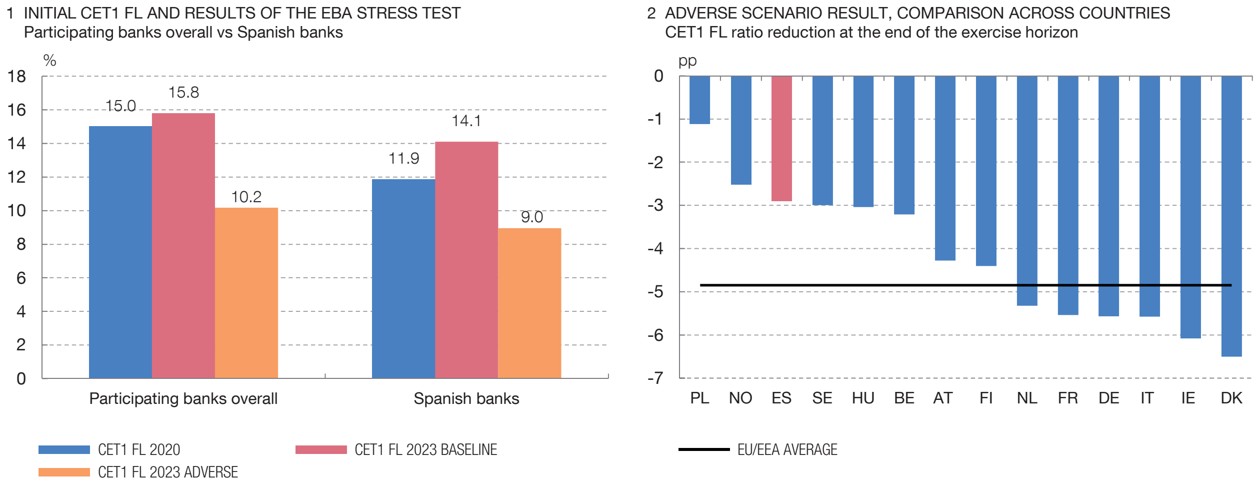
25 The top end of the range assumes that NPL inflows are concentrated among guaranteed loans, which thus absorb the bulk of the losses. This result constitutes an upper bound to the impact on capital absorbed by ICO guarantees. For its part, the lower end of the range assumes that the guaranteed loan losses are equal to the average for the corporate credit portfolio.

26 Banco Santander, S.A., Banco Bilbao Vizcaya Argentaria, S.A., Banco Sabadell, S.A. and Bankinter, S.A.

Chart 2.18

EUROPEAN BANKS SHOW STRONG RESILIENCE UNDER THE ADVERSE SCENARIO OF THE EBA STRESS TEST, WITH BETTER-THAN-AVERAGE RESILIENCE FOR SPANISH BANKS

The results obtained show that the participating institutions would, overall, see their CET1 capital ratio increase slightly under the baseline scenario and decline by nearly 5 pp under the adverse scenario. The solvency of Spanish banks would change more favourably than the average for participating institutions in both exercises.



SOURCE: European Banking Authority.

Danish and Irish banks, whose CET1 capital ratios end the exercise down by more than 6 pp.

The differences – in terms of methodology, scope and risks analysed – between the EBA exercise and the FLESB lie behind certain disparities in the results obtained for Spanish banks. The most significant differences between the two exercises are associated with the fact that the EBA methodology assumes a static balance sheet in all years. By contrast, the FLESB adapts to the macroeconomic developments implicit in the scenarios. Similarly, the EBA-coordinated exercises consider the impact of the scenarios on market and operational risk, aspects that fall partially outside the scope of the FLESB. The EBA exercise likewise considers a small sample of all Spanish deposit institutions, compared with the broader coverage provided by the FLESB. In any event, both exercises evidence the Spanish banking sector's aggregate resilience to an adverse economic environment.

2.1.4 Deposit institutions' operational risks

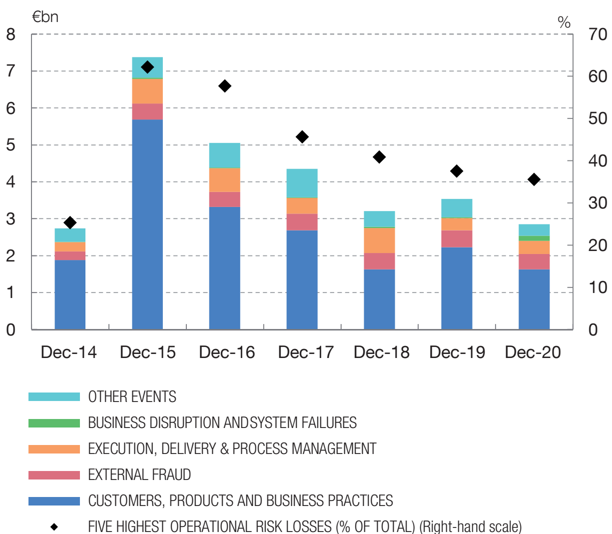
Spanish banks' operational risk losses have been in decline since 2015, with a simultaneous increase in perceived cyber risks. Despite the reduction in operational risk losses (see Chart 2.19.1), the number of external fraud events has increased, with the vast majority being cyber incidents. It comes as no surprise, then, that concern surrounding cybersecurity has intensified over the last decade (see

Chart 2.19

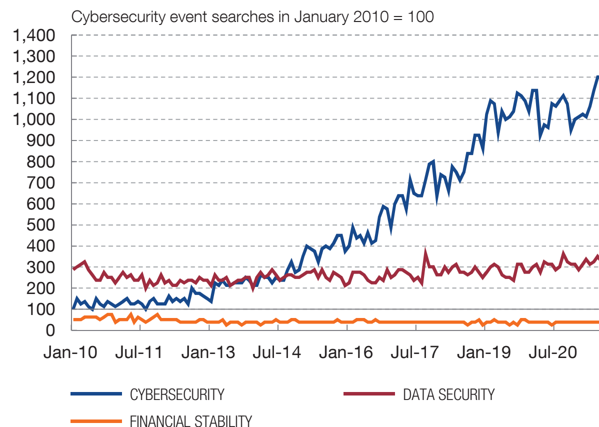
OPERATIONAL RISK LOSSES HAVE DECLINED IN RECENT YEARS, BUT THERE IS GROWING CONCERN OVER THE FUTURE COSTS OF CYBER RISKS

Operational risk losses have declined significantly since 2015, although the number of external fraud events has increased. Concern over the possible future impact of cyber risks is on a rising trajectory, as revealed by Google searches, although the scant data hinders any systematic measurement of their impact and cost.

1 OPERATIONAL RISK. TOTAL LOSSES
Consolidated data. December 2020



2 GOOGLE TRENDS ON CYBERSECURITY
(2010-2021) (a)



SOURCES: Google Trends and Banco de España.

a The number of Google Trends searches is standardised using the number of searches for cybersecurity events in January 2010 as base 100.

Chart 2.19.2). The extraordinary circumstances of 2020 and the necessary commitment to remote working created new opportunities for cybercriminals to exploit the growing reliance on communication networks. The three main types of cybersecurity incidents in 2020 were data kidnapping, data theft and server hacking. The banking sector is particularly susceptible to such attacks, as evidenced by it topping the ranking in terms of attack numbers for the fifth consecutive year. Guarding against these increasingly frequent and costly incidents entails banks implementing safeguards and mitigation measures. The immediate monetary costs stemming from cyber risk are highly uncertain. However, the total costs would be even greater and material, since the critical asset of customer confidence would be compromised.

2.2 Non-bank financial sector and systemic interconnections

2.2.1 Non-bank financial sector

Specialised lending institutions

The credit extended by specialised lending institutions (SLIs) stabilised in the last 12 months, while NPLs declined and income statements recovered. In

June 2021 the credit extended by SLIs to the resident private sector grew by 0.2% year-on-year, improving markedly on previous quarters. The consumer credit portfolio (a segment in which SLIs specialise) grew by 5.4% year-on-year, drawing close to pre-pandemic levels. NPLs declined sharply in the last 12 months (-13.1%), although much of that fall owed to the write-off of NPLs at a single institution. Thus, the NPL ratio in June 2021 stood at 6.5%, down 1 pp on the same month a year earlier. As with banks, the moderation of loan loss provisions has led to growth in profit after tax, in this case by 11.8%, increasing the ROA by 30 bp over the last 12 months to 1.8% in June 2021.

Insurance companies

In the insurance sector, profitability and solvency indicators were largely unchanged in 2021 H1, while the companies' premiums and total assets both grew.[27] Specifically, the volume of premiums increased by 5.5% as compared with the same period a year earlier, with stronger growth in life premiums (9.3%) than non-life premiums (3.4%). The overall saving managed by insurance companies increased by 3.2% as compared with the same period a year earlier.

Investment funds

Investment funds domiciled in the euro area recorded net capital inflows in 2021 H1. Inflows have steadily recovered since end-2020, coinciding with an improvement in economic expectations (see Chart 2.20.1), and rising returns in some segments, following the sharp outflows during the initial weeks of the pandemic in certain segments of the industry. This recovery has been intense, comfortably offsetting the outflows that took place at the onset of the crisis, with the exception of funds domiciled in Italy. Developments in capital flows differ across the various vehicles, with equity funds recording the strongest flows. Inflows have been more moderate for mixed funds, which invest in both fixed income and equity, and above all in bond and money market funds, with some jurisdictions even registering net capital outflows.

Spanish investment funds tend to have a fixed-income portfolio with shorter maturities and larger liquidity holdings than average for euro area funds. For the latter, the average maturity of fixed-income portfolios is around ten years, while that for funds domiciled in Spain is considerably shorter (around four and a half

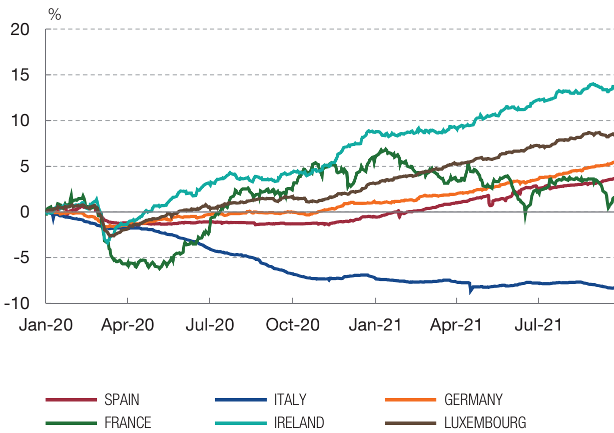
27 On 22 September 2021, the European Commission adopted the revision of the Solvency II Directive, which included a legislative proposal to amend Directive 2009/138/EC and a legislative proposal for a new Insurance Recovery and Resolution Directive. The changes to the solvency directive are expected to release capital in the sector, thus fostering long-term investment and asset growth.

Chart 2.20

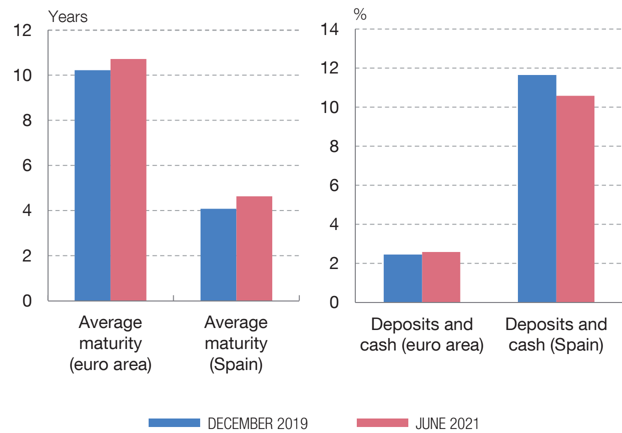
EURO AREA INVESTMENT FUND CAPITAL INFLOWS PERSISTED IN H1, WITH THE MATURITY OF THEIR FIXED-INCOME PORTFOLIOS RISING SLIGHTLY SINCE THE ONSET OF THE CRISIS

In recent months, net capital inflows into euro area investment funds have increased, essentially due to higher flows for equity funds. In the last year and half, the average maturity of these vehicles' fixed-income portfolios has increased moderately, meaning the value of the funds' exposures could be more sensitive to changes in interest rates. Holdings of highly liquid assets have declined slightly in the funds domiciled in Spain.

1 INVESTMENT FUND FLOWS (a)



2 INVESTMENT FUNDS IN SPAIN AND THE EURO AREA: AVERAGE FIXED-INCOME PORTFOLIO MATURITY (left panel) AND LIQUIDITY OF HOLDINGS (right panel) (b)



SOURCES: Refinitiv, Securities Holdings Statistics by Sector, ECB and Banco de España.

a Cumulative change in investment fund net capital inflows and outflows, as a percentage of the total net assets of the funds of each country on 15 January 2020, drawing on a representative sample of funds domiciled in euro area countries. The data for days with atypical flow values are omitted. Data up to early-October 2021.

b Average maturity refers to the weighted average remaining maturity (in years) of long position bonds in investment fund portfolios (the weightings are the volume of holdings). The degree of liquidity of the holdings is measured as the ratio of deposits and cash held by the investment funds to their total financial assets.

years). The value of the exposures is therefore less sensitive to changes in interest rates (see Chart 2.20.2). Regarding these vehicles' holdings of liquid assets (approximated through deposit and cash holdings as a percentage of the total), the values for funds domiciled in Spain (10.6%) are five times higher than for the euro area overall, although such holdings have declined slightly in the last two years for Spanish funds. Both the maturity and liquid asset holdings of Spanish funds appear to denote a liquidity risk profile below the average for euro area funds. However, this higher liquidity may come at the cost of lower profitability relative to funds in the euro area overall. Lastly, it should be noted that the Spanish financial system could be exposed to risks through funds not domiciled in Spain operating in global financial markets with significant cross-jurisdiction interconnections.

Pension funds

There has been a broad-based decline in net contributions to pension funds in the year to date, while their returns and total assets have risen. Despite the drop in net contributions, in June 2021 pension plan assets had increased by 10.9% as

compared with the same month a year earlier, with H1 also showing growth (4.7% since December 2020). This increase reflects pension funds' high annual average returns, which have climbed by 12.78 pp since June 2020 to stand at 11% in June 2021. For their part, long-term returns (25 years) have held at around 3.4% in the last 12 months.

2.2.2 Systemic interconnections

The analysis of interconnections between different economic agents and markets helps identify potentially systemic vulnerabilities resulting from linkage within the financial sector itself or with the non-financial sector. This section analyses the banking sector's direct exposure to other economic sectors and the indirect interconnections within the Spanish financial system through common holdings.

The Spanish banking system's total assets and liabilities vis-à-vis other resident and non-resident sectors increased slightly during the first few months of the health crisis. In the case of assets, this was followed by slight moderation over the subsequent quarters. The value of the banking sector's assets vis-à-vis other sectors has held close to 190% of GDP since end-2019, with a temporary upturn around mid-2020 (see Chart 2.21.1). For the banking sector's liabilities, which stand close to 180% of GDP, the increase recorded in mid-2020 appears not to have reversed (see Chart 2.21.2). The distribution of the assets reveals relatively uniform exposure to households and NFCs and smaller exposure to general government. Box 2.3 analyses these exposures to the public sector in greater depth; whose contribution to the risks of the banking sector during the COVID-19 crisis is very different to that during the global financial crisis. However, on the liability side exposures to households (essentially deposits) predominate. It should also be noted that the banking sector's assets vis-à-vis investment funds, insurance companies and pension funds are far lower (less than 1% of GDP) than those held with non-financial sectors and other financial sectors (19% of GDP).[28] The liabilities held by banks vis-à-vis insurance companies, investment funds and pension funds stand close to 2%, 4% and 1% of GDP, respectively, throughout the period. International exposures are significant, with similar shares for assets (51% of GDP) and liabilities (48% of GDP).

Banks' indirect interconnectedness with other resident financial sectors, measured via common securities holdings, is largely unchanged relative to the pre-pandemic situation, while that of other financial sectors has declined

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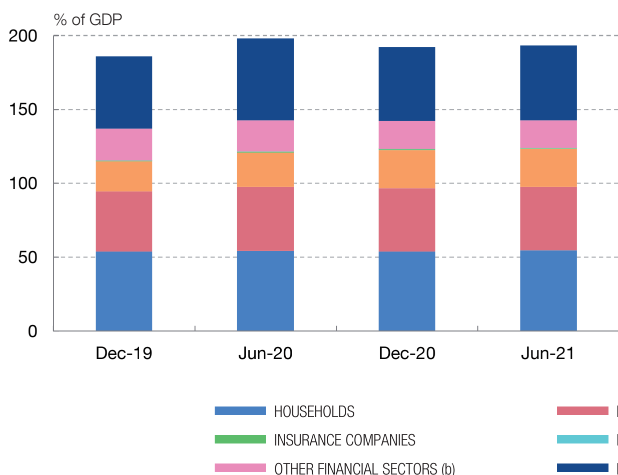
28 Other financial sectors include specialised lending institutions and financial monetary institutions other than insurance companies, investment funds and pension funds (such as: financial auxiliaries, captive financial institutions and money lenders and other financial intermediaries).

Chart 2.21

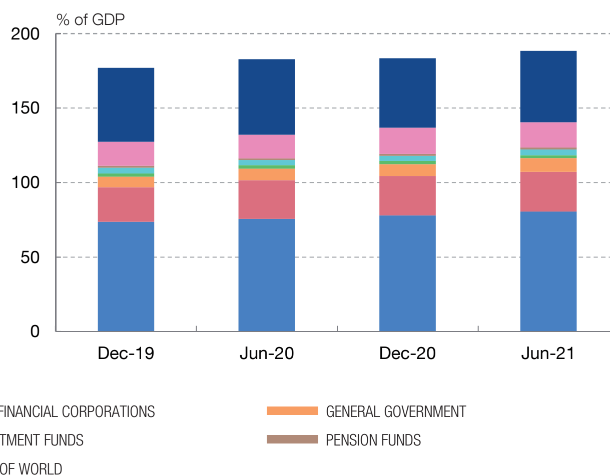
THE LEVEL AND STRUCTURE OF BANKS' DIRECT INTERCONNECTIONS WITH OTHER SECTORS THROUGH THEIR ASSETS AND LIABILITIES HAVE NOT BEEN SIGNIFICANTLY ALTERED BY THE CRISIS (a)

At June 2021, exposure to the resident non-financial sector predominated on the asset side (123% of GDP), while exposure to resident financial institutions was limited to 19% of GDP. On the liability side, the resident non-financial sector accounted for a somewhat lower share (116% of GDP), and in addition to liabilities vis-à-vis other financial sectors (17% of GDP, 1 pp higher than pre-crisis) there are relevant liabilities vis-à-vis insurance companies and investment and pension funds (combined share of 7% of GDP, 0.2 pp higher than pre-crisis). The international exposures are relevant, with similar shares for assets (51% of GDP) and liabilities (48% of GDP).

1 ASSETS VIS-À-VIS OTHER SECTORS OF THE ECONOMY



2 LIABILITIES VIS-À-VIS OTHER SECTORS OF THE ECONOMY



HOUSEHOLDS | NON-FINANCIAL CORPORATIONS | GENERAL GOVERNMENT | INSURANCE COMPANIES | INVESTMENT FUNDS | PENSION FUNDS | OTHER FINANCIAL SECTORS (b) | REST OF WORLD

SOURCE: Banco de España.

a Individual data, presented as a percentage of 2019 GDP.

b The "other financial sectors" category includes specialised lending institutions and non-monetary financial institutions other than insurance companies and investment and pension funds (e.g. financial auxiliaries, captive financial institutions and money lenders and other financial intermediaries).

somewhat.[29,30] The interconnections between the banking sector and other financial sectors were highly stable between December 2019 and June 2021, except for a slight decline in interconnectedness with investment funds (see Chart 2.22). However, there has been a more evident reduction in interconnectedness between investment and pension funds and other financial sectors. This reduction comes alongside a compositional change, with increased interconnectedness through high credit quality assets (AAA to AA-) and unrated assets, and reduced interconnectedness through exposures of intermediate credit quality (A+ to A-). There has also been a broad-based decline in indirect interconnections between

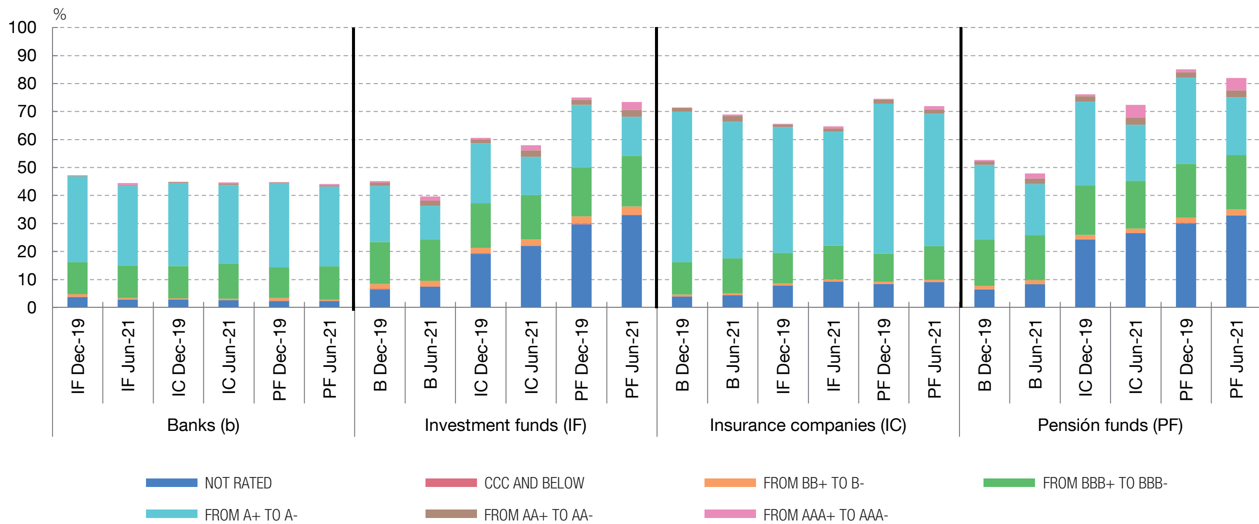
29 The common holdings refer, for instance, to the same holdings of a bank and an insurance of debt securities issued by the same NFC or government.

30 Marketable securities portfolios include bonds, equity and investment fund shares/units. Valued at market prices, the banking sector's portfolio stood at around €670 billion in 2021 Q2, while that of non-bank financial sectors amounted to close to: (i) €270 billion for insurance companies; (ii) €287 billion for investment funds, and (iii) €124 billion for pension funds. These amounts represent around 24% of individual financial assets for the banking sector and 80% for the resident non-bank financial sectors considered in this analysis (investment funds, insurance companies and pension funds).

Chart 2.22

A SLIGHT DECLINE IS OBSERVED IN THE FINANCIAL SECTORS' COMMON HOLDINGS, ESPECIALLY INVESTMENT AND PENSION FUNDS (a)

The common holdings of various financial intermediaries are concentrated in high credit quality bonds. As was the case in previous periods, common holdings represent a lower proportion of total assets for banks than for other financial intermediaries.



SOURCES: Securities Holding Statistics by Sector and Refinitiv.

a Each column represents one financial sector's common holdings with another, as a proportion of the former's total securities portfolio, with the different rating segments identified. For each financial sector, the share of common holdings with each of the other three is shown at 2019 Q4 and 2021 Q2. For example, the first column shows that, at 2019 Q4, the common holdings between banks and investment funds represented 47% of the banking sector's total securities portfolio. Of these, approximately 11% have ratings on the cusp of investment-grade (BBB+ to BBB-). Taken into account are the market value of the holdings reported by the institutions (or, if applicable, the fair value) and the long positions in the portfolio (short positions represent a very small percentage). The latest available rating at each date is used, standardised based on the S&P credit rating scale.

insurance companies and other financial sectors, albeit far more moderate and with smaller compositional changes.