



BANCA D'ITALIA  
EUROSISTEMA

# Financial Stability Report

November 2021

2 | 2021



**BANCA D'ITALIA**  
EUROSISTEMA

# **Financial Stability Report**

**Number 2 / 2021**  
**November**

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## **SYMBOLS AND CONVENTIONS**

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Unless otherwise specified, Bank of Italy calculations; for Bank of Italy data, the source is omitted.

In the tables:

- the phenomenon does not exist;
- .... the phenomenon exists but its value is not known;
- .. the value is nil or less than half of the final digit shown;
- :: not statistically significant;
- () provisional.

In the figures with different right- and left-hand scales, the right-hand scale is identified in the notes.

For the abbreviations of the names of European countries used in this publication please refer to the EU's *Interinstitutional Style Guide* (<http://publications.europa.eu/code/en/en-000100.htm>).

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## OVERVIEW

*The global economy continues to benefit from the effects of the vaccination campaign and the expansionary policies of monetary and fiscal authorities. However, signs of a slowdown have emerged in the last few months owing to the supply bottlenecks that, together with the increase in commodity and energy product prices, are also causing more persistent than expected price pressures. Based on our current evaluations, the impact on long-term inflation expectations has been modest so far. On the financial markets, the sovereign spreads of some euro-area countries recorded a marked increase between the end of October and the start of November, in connection with fears about a possible reduction in monetary accommodation.*

*In Italy, the risks to financial stability are moderate; medium-term vulnerabilities persist, connected above all with the possibility that economic growth, which is currently solid, may lose momentum. The Eurosystem's public and private sector securities purchase programmes are helping to keep financing conditions relaxed, including in the government bond market. Spreads on corporate bonds remain at historically low levels in both the investment grade and the high yield market segments. The steady reduction in firms' default rates, made possible by the good performance of the economy, mitigates the risk of sudden falls in bond prices.*

*The gradual recovery in the real estate market continues, in line with the current economic conditions. The risks to financial stability originating in this sector remain low, in contrast to what has been observed in other European countries, where property prices are growing markedly and there are signs of overvaluation.*

*The risks connected with the financial situation of households remain limited overall. The cyclical improvement and the support measures have translated into overall growth in saving and financial wealth, though it is uneven across the various categories of the sector. Indebtedness is increasing moderately but remains low by international*

*standards; loan repayment capacity is good, in part thanks to low interest rates; and the share of debt held by financially vulnerable households is relatively low.*

*The upturn in profitability, the abundant liquidity accumulated during the pandemic and the favourable financing conditions are all contributing to a significant improvement in firms' balance sheets. Thanks to the solid economic recovery, the gradual phasing out of public support measures is taking place without generating any tensions. Risks could stem from changes in the economic situation and in firms' profitability that are less favourable than currently anticipated.*

*The Government's support measures for households and firms and the economic recovery have helped to mitigate the effects of the pandemic on the quality of banks' assets. The new non-performing loan rate is stable, at historically low levels, and the disposal of non-performing loans continues. Nevertheless, performing loans classified as forborne exposures have increased, above all among borrowers that have benefited from debt moratoriums. It is important for banks to be particularly prudent when assessing the repayment capacity of debtors and in their subsequent decisions on provisioning.*

*Looking ahead, sources of vulnerability for financial intermediaries may stem from the growing digitalization of financial services and the increased outsourcing of activities, which raise exposure to cyber and business continuity risks. Awareness of these new risks as well as their integration into governance and control systems are vital for intermediaries in order to counter them effectively.*

*Banks' profitability improved considerably in the first half of the year, mainly owing to the fall in loan loss provisions. Other contributory factors, such as trading profits, are temporary and may not extend to the second half of the year. Capitalization fell slightly, above all due to the phasing out of the*

*transitional prudential arrangements connected with the adoption of IFRS 9. It should only be slightly affected by the resumption of the payment of dividends tied to the lapsing of the recommendations issued by the supervisory authorities, which had limited dividend distribution during the public health emergency.*

*The insurance sector has returned to pre-pandemic conditions. The average solvency ratio of insurance companies rose further in the first half of 2021.*

*Profitability and premium income have increased, thanks to the good performance of the life sector.*

*The positive trend in net subscriptions of investment funds continues. The share of assets under management of funds vulnerable to changes in the margin requirements has grown slightly; the increase is attributable to a limited number of funds that have not, however, experienced tensions in managing redemptions. The risks to financial stability from this sector remain low.*

# 1 MACROECONOMIC RISKS AND RISKS BY SECTOR

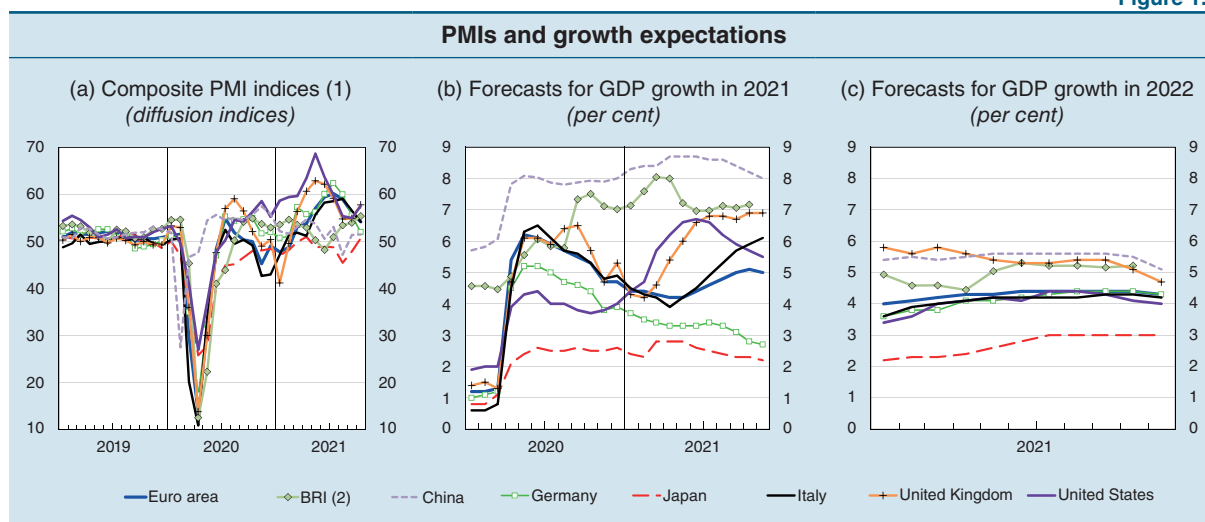
## 1.1 MACROECONOMIC RISKS

### *Global risks and euro-area risks*

The global economy continues to grow, benefiting from the large-scale vaccination campaigns and the support policies of governments and central banks. However, signs of a slowdown emerged over the summer (Figure 1.1.a), attributable to the rise in the infection rate and to supply bottlenecks that are creating price pressures. In the leading advanced economies, the rise in inflation is mainly connected with the cost of raw materials and energy products; although the rise is more persistent than initially expected, it has only partly affected long-term inflation expectations.

Global growth is expected to remain strong through the end of this year and in 2022 (Figures 1.1.b and 1.1.c). In the United States, where the recovery in economic activity is at a more advanced stage than in Europe, the Federal Reserve has indicated that over the next few months it will gradually reduce the volume of securities purchases on the markets, also taking into account how the economic situation unfolds. In China, economic activity could continue to be affected by the phasing out of expansionary policies and by the adoption of measures to contain firms' indebtedness. In the Chinese real estate sector, the liquidity tensions of one of its large groups raised concerns about the solvency of the most indebted firms and the possible macroeconomic repercussions (see the box 'The financial crisis of the Chinese real estate group Evergrande'). The process of transition towards a development model that focuses more on redistributive effects and financial stability is also increasing the uncertainty over medium-term growth.

Figure 1.1



Sources: Based on data from Consensus Economics, ISM, Markit and Refinitiv.

(1) Composite diffusion indices of economic activity in the various sectors based on purchasing managers' assessments (PMI). Values above (below) 50 are compatible with an expansion (contraction) in activity compared with the previous month. – (2) Average of the indices and forecasts for Brazil, Russia and India (BRI), weighted on the basis of each country's GDP (IMF, World Economic Outlook Database, October 2021).



## THE FINANCIAL CRISIS OF THE CHINESE REAL ESTATE GROUP EVERGRANDE<sup>1</sup>

At 23 September, Evergrande, the Chinese real estate conglomerate, had failed to meet the deadline for paying coupons of over \$360 billion on eight bonds mainly denominated in dollars and issued on international markets. Although Evergrande is making the payments by the end of the 30 days' grace period, thereby avoiding a technical default, this episode has brought to light the group's liquidity crisis and the probable need to proceed with a debt restructuring. The local authorities intervened to make sure that payments were made relating to national bond issuances and to tranches of the loans disbursed by some Chinese banks. Evergrande's financial tensions affected stock market prices before the non-payment of the coupons: on 22 September, its shares were worth 85 per cent less than at the beginning of the year (see Figure A), while its bonds were trading at between 25 and 30 per cent of their nominal value. The failure to pay the coupons had an impact on Chinese high yield securities, whose spread compared with sovereign debt securities with a similar maturity increased from 1,400 basis points in mid-September to 2,400 at the beginning of October (Figure B). Asian financial markets recorded a brief phase of high volatility, while global ones had a very limited reaction.

The Evergrande group has established itself over the last two decades, thanks to the strong dynamics of the real estate market. It became the second biggest Chinese group by volume of sales, deploying aggressive expansion strategies that led to a rapid growth in indebtedness. With the entry into force in October 2020 of a series of measures adopted by the supervisory authorities to limit the size, composition and the maturity of the liabilities of real estate companies, Evergrande encountered increasing difficulties in both the national bond market and in obtaining bank credit. In 2021, the financial situation of the real estate conglomerate, whose debt structure did not comply with any of the supervisory measures even from when they were first applied, worsened further following the gradual tightening of the regulatory policies adopted by the Chinese government.

<sup>1</sup> By Lorenzo Bencivelli and Dario Portioli.

Figure A

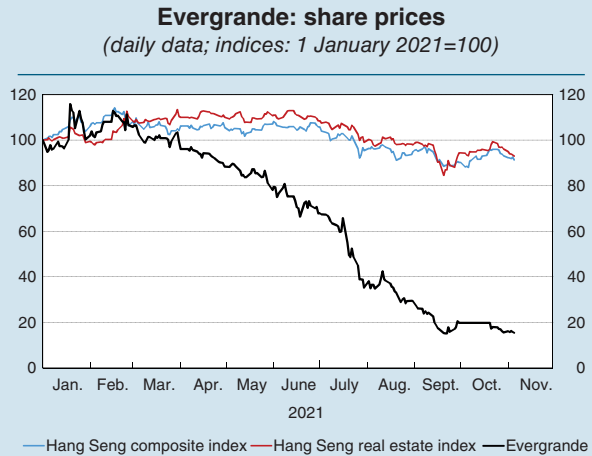
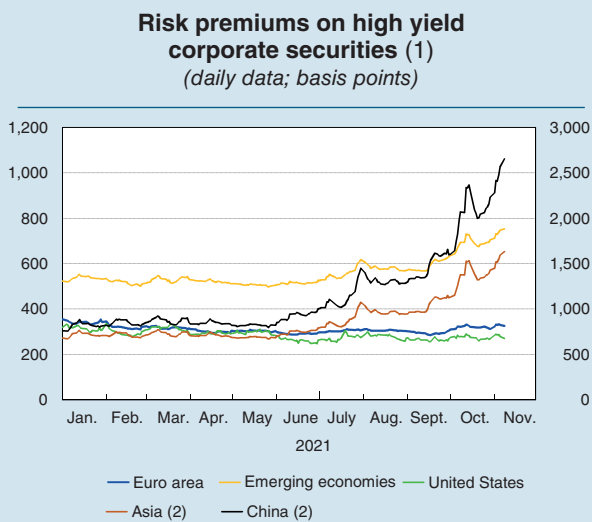


Figure B



The group's liquidity crisis generated great uncertainty over the prospects of the entire construction sector in China, which had long been highly indebted. The real estate sector expanded rapidly in the years following the global financial crisis, after local governments had financed the huge macroeconomic stimulus largely with the proceeds from selling land for building to private operators. It is estimated that just under 30 per cent of the economy's value added could be traced to China's real estate sector (including materials, equipment, investment in construction, and ancillary services).<sup>2</sup> The expansion in this sector went hand in hand with the growth in its indebtedness: around 23 per cent of the volume of outstanding Chinese non-sovereign bonds and more than half of high yield ones were issued by firms in the real estate sector.

The possibility of global financial contagion if the group were to fail seems limited overall. The group's liabilities placed on the markets amount to about \$88 billion, \$20 billion of which are traded in international markets.<sup>3</sup> The remaining debt consists of exposures towards Chinese banks. The central bank believes the risks connected with the Evergrande crisis to be essentially isolated and manageable:<sup>4</sup> according to private sector estimates, should all the group's liabilities become bad debts, the ratio of tier 1 capital to risk-weighted assets for China's banking system would fall from 12 to 11 per cent. Nonetheless, if a crisis of confidence were to trigger a sudden and widespread interruption in property purchases, leading to a sharp fall in prices, the downturn in the real estate market could have non-negligible consequences for the real economy. According to International Monetary Fund estimates, a decrease of 15 per cent in the value of houses in China could lead to a slowdown in domestic economic activity of just under one percentage point.<sup>5</sup>

The exposure of Italian financial intermediaries towards Evergrande is extremely low and is concentrated above all in the investment fund sector, where they directly hold just over €60 million in securities issued by the Chinese group (around 0.02 per cent of the total assets managed by Italian investment funds). Indirect exposure, via investment funds and exchange-traded funds (ETFs), is also modest, given the conglomerate's minor importance in the stock market indices and international bond markets. Italian banks' exposure to Chinese counterparties is limited, standing at €5.3 billion at the end of the first quarter of 2021.

<sup>2</sup> K.S. Rogoff and Y. Yang, 'Peak China housing', NBER Working Paper, 27697, 2020.

<sup>3</sup> Evergrande has liabilities worth \$330 billion, 70 per cent of which are short term. Among these, it is estimated that it still has to deliver between 600,000 and two million dwellings that have been partially or completely paid for.

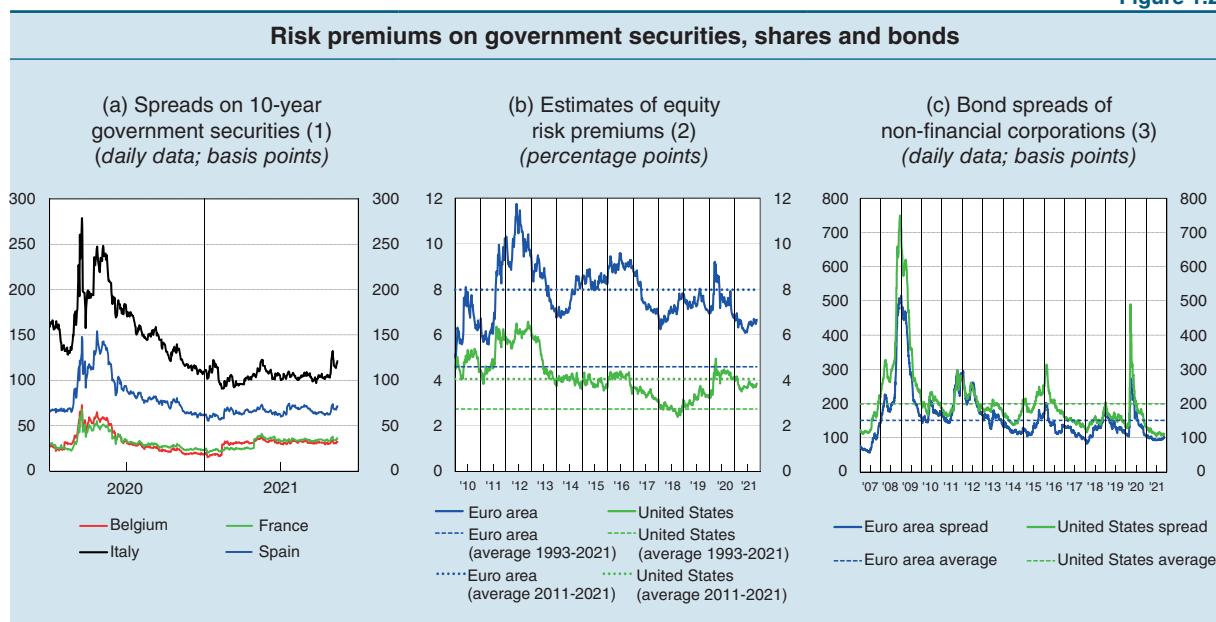
<sup>4</sup> L. Kihara, 'China faces challenges from "mismanagement" at certain firms, says PBOC head', Reuters, 18 October 2021.

<sup>5</sup> D. Ding, X. Huang, T. Jin and W.R. Lam, 'Assessing China's residential real estate market', IMF Working Papers, 248, 2017.

In the United States and the euro area, long-term interest rates are at similar levels to those in the spring of this year. In recent months, they have been subject to significant volatility, fuelled by uncertainties over the persistence of inflationary pressures and the methods and timing for reducing monetary accommodation in the leading advanced economies. If inflationary pressures remained high, the risk of a significant increase in the yields on long-term securities could materialize.

Conditions on the government securities markets in the euro area continued to be relaxed on average, against a background of good trading liquidity, thanks also to the Eurosystem continuing with its purchase programmes (see Section 2.1). The sovereign spreads of some countries, including Italy,

Figure 1.2



Sources: ICE Bank of America Merrill Lynch and Refinitiv.

(1) Differences between the yields on the benchmark 10-year government bonds of the countries in the key and on the corresponding German Bund. – (2) For S&P 500 (US) and Datastream EMU Total Market (euro area), the ratio of the 10-year moving average of earnings per share to the value of the stock index (both at constant prices). To obtain an estimate of the share risk premium, we deduct from the resulting ratio, which is an estimate of the expected real return on the shares, the real return on inflation-indexed 10-year government bonds. The dashed lines indicate the averages of the risk premiums from 1993 to 2021 and in the last decade. – (3) Spreads refer to BBB-rated bonds issued by non-financial corporations. The dashed lines indicate the averages of the spreads from 2000 to 2021.

nevertheless recorded a marked increase between the end of October and the beginning of November (Figure 1.2.a), in connection with fears that any reduction in monetary accommodation might be accompanied by the reappearance of fragmentation in the markets. This episode shows how fears of this kind can significantly impact the Italian public securities market, which, because of its highly liquid derivatives contracts, makes it possible to establish very large short-term positions, also in the sovereign debt of other countries.

The good performance of profitability for listed companies encouraged further growth in the stock market indices. Risk premiums are at levels above their long-term historical average, but below the average for the last decade (Figure 1.2.b); they indicate that the expected returns on shares continue to be well above those for ten-year government securities. However, unexpected increases in the latter could cause significant decreases in share prices.

Spreads on corporate bonds remained at historically low levels in both the investment grade (Figure 1.2.c) and the high yield sectors. The revival of the economy and the steady reduction in default rates and in the downgrading of credit ratings (see Section 1.2) are helping to mitigate the risk of sudden falls in bond prices, although this risk is still non-negligible.

In the first half of 2021, the profitability of European Union banks improved, thanks in part to the marked decline in loan loss provisions. The capital position of banks, measured by the ratio of tier 1 capital to risk-weighted assets, strengthened. Banks' credit default swap (CDS) premiums remained essentially stable and their share prices rose, though remaining low in relation to book values. Expectations for the future profitability of European intermediaries, which are much lower than those for the leading international competitors, continue to influence stock market assessments.

## Macrofinancial conditions in Italy

In Italy, the risks for financial stability are moderate; medium-term vulnerabilities persist that could materialize in the event of less favourable than expected trends in the economy.

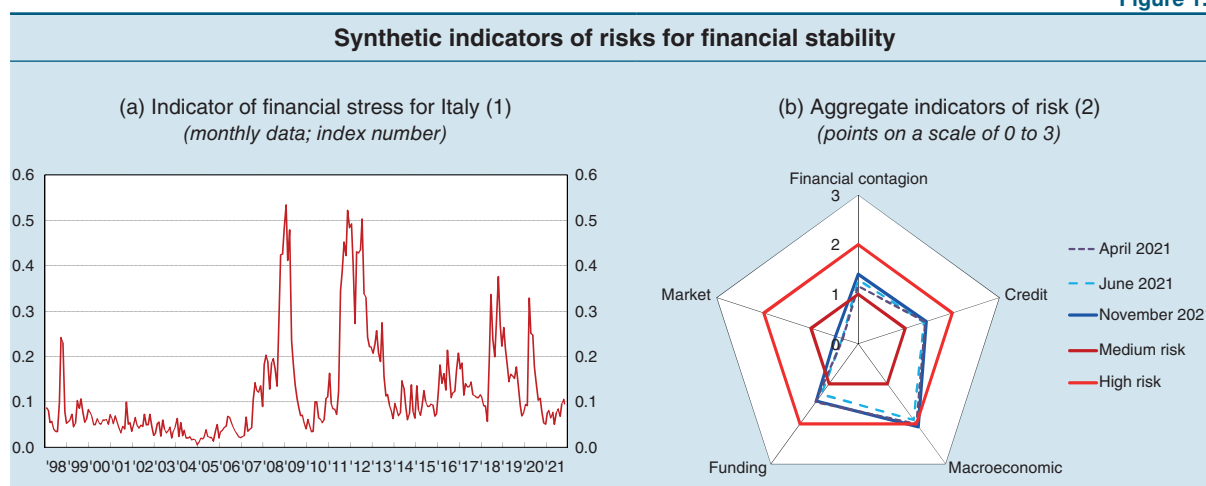
The indicator of financial stress is in line with pre-pandemic levels (Figure 1.3.a) and market risks are modest (Figure 1.3.b), in part because of the lack of signs of overvaluation of the share prices of Italian listed companies. The macrofinancial situation has strengthened over the year and the growth projections for 2021 and 2022 have gradually been revised upwards, in part owing to the vaccination campaign going well (see *Economic Bulletin*, 4, 2021), but macroeconomic risks remain high overall.

The improvement in the economic outlook favours the gradual phasing out of the measures to support households and firms' access to credit. Vulnerabilities persist, however, connected with the growth in the indebtedness of non-financial corporations (see Section 1.2), which could have repercussions for the quality of banks' assets if the economic conditions were less positive than expected (see Section 2.2).

In the medium term, the risks connected with the high debt-to-GDP ratio (see Table A1 in Selected Statistics) and with the realization and efficacy of the recovery policies set out in the National Recovery and Resilience Plan (NRRP) are a burden. Difficulties in complying with the deadlines and objectives of the NRRP agreed at European level could have consequences for the credibility of the commitments made and for the public debt market, and could reduce the expected benefits for the growth potential for the Italian economy.

In line with last April's estimates (see *Financial Stability Report*, 1, 2021), in the second quarter of this year, the difference between the credit-to-GDP ratio and its long-run trend (credit-to-GDP gap) turned negative, reflecting the increase in GDP and the slowdown in lending to firms (Figure 1.4). Our projections, consistent with the latest macroeconomic scenarios, show that the credit-to-GDP gap will remain broadly negative in 2022.

Figure 1.3

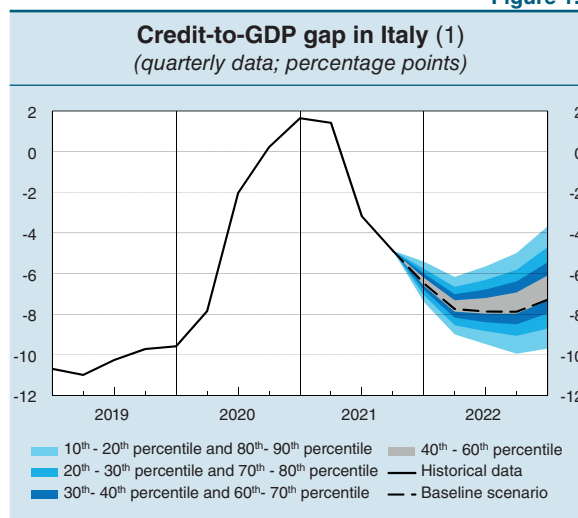


Source: Based on Refinitiv data.

(1) The indicator ranges from 0 (minimum risk) to 1 (maximum risk). For further details, see, A. Miglietta and F. Venditti, 'An indicator of macro-financial stress for Italy', Banca d'Italia, *Questioni di Economia e Finanza* (Occasional Papers), 497, 2019. – (2) The aggregate indicators are based on the analytical framework to assess risks described in F. Venditti, F. Columba and A.M. Sorrentino, 'A risk dashboard for the Italian economy', Banca d'Italia, *Questioni di Economia e Finanza* (Occasional Papers), 425, 2018. Values between 0 and 1 indicate low risk, between 1 and 2 medium risk, and between 2 and 3 high risk. Changes in the indicators compared with those published in previous editions of the Financial Stability Report are due to revisions of the data.

At the beginning of October, with its Update to the 2021 Economic and Financial Document, the Government revised the estimates and objectives for the public accounts.<sup>1</sup> For the current year, the Update estimates net borrowing at 9.4 per cent of GDP, lower by almost 2.5 percentage points compared with the forecast made in last April's Economic and Financial Document (DEF) and by 0.2 points compared with the outturn for 2020. The debt-to-GDP ratio – which the DEF predicted would rise by 4 percentage points compared with the figure of 155.6 per cent for 2020 – is now expected to decline, to 153.5 per cent.<sup>2</sup> The current legislation scenario for the years 2022-24 is also more favourable than that of the DEF, in part reflecting the better macroeconomic outlook. The greater room for manoeuvre would be used almost entirely for new expansionary measures. In the policy scenario, which incorporates the budget law currently being discussed in Parliament, the deficit and the public debt would decrease gradually, to 3.3 and to 146.1 per cent of GDP respectively in 2024.

Figure 1.4



Sources: Based on Bank of Italy and Istat data.

(1) The probability distribution of the projections takes account of asymmetric shocks to the main risk factors, according to the procedure described in C. Miani and S. Siviero, 'A non-parametric model-based approach to uncertainty and risk analysis of macroeconomic forecasts', Banca d'Italia, Temi di Discussione (Working Papers), 758, 2010. For the methodology used to calculate the credit-to-GDP gap, see P. Alessandri, P. Bologna, R. Fiori and E. Sette, 'A note on the implementation of a countercyclical capital buffer in Italy', Banca d'Italia, Questioni di Economia e Finanza (Occasional Papers), 278, 2015.

The expansionary stance of fiscal policies is justified by the need to counter the consequences of the pandemic for the Italian economy, which have not yet been completely overcome. In the medium term, ensuring a path towards a significant and long-lasting reduction in the debt-to-GDP ratio will require both a greater potential for growth, in part through an effective implementation of the NRRP, and steady fiscal consolidation, to guarantee a return to adequate primary surpluses.

### Real estate markets

In the first half of the year, the increase in residential property prices continued in all European countries, considerably so in northern European countries and more modestly in Italy and Spain (Figure 1.5.a). The risks to financial stability are on the increase in economies showing a particularly robust expansion; they remain low in Italy, where the recovery in the residential market appears consistent with the evolution of the economic situation.

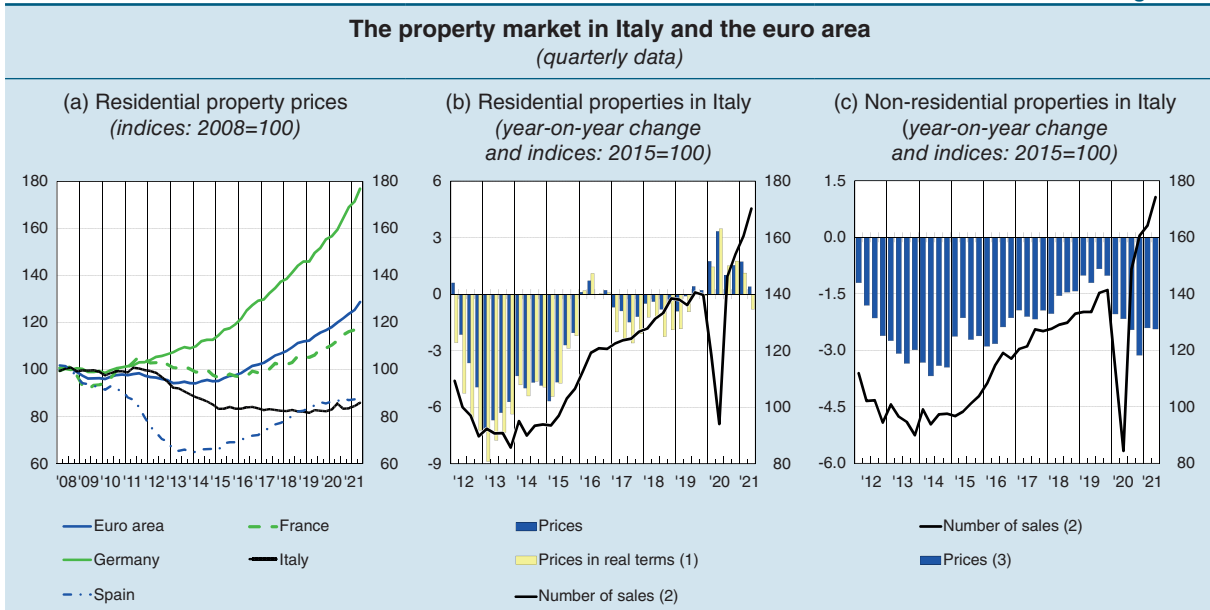
In Italy, house sales grew at higher rates in the first half of 2021 than they did in 2019 and the small increase in nominal prices that had been under way for two years continued (Figure 1.5.b). Our estimates show that prices will continue to rise in the second half of 2021 and in 2022 at moderate rates by international standards.

In Europe, the non-residential sector continued to feel the effects of the public health crisis, recording another decrease in prices in the euro area as a whole and in the leading economies. In Italy, sales

<sup>1</sup> 'Preliminary hearing on the Update to the 2021 Economic and Financial Document', testimony by E. Gaiotti, Director General for Economics, Statistics and Research at the Bank of Italy, before the Senate of the Republic, Rome, 5 October 2021.

<sup>2</sup> These trends were also confirmed in the Draft Budgetary Plan of 20 October 2021.

Figure 1.5

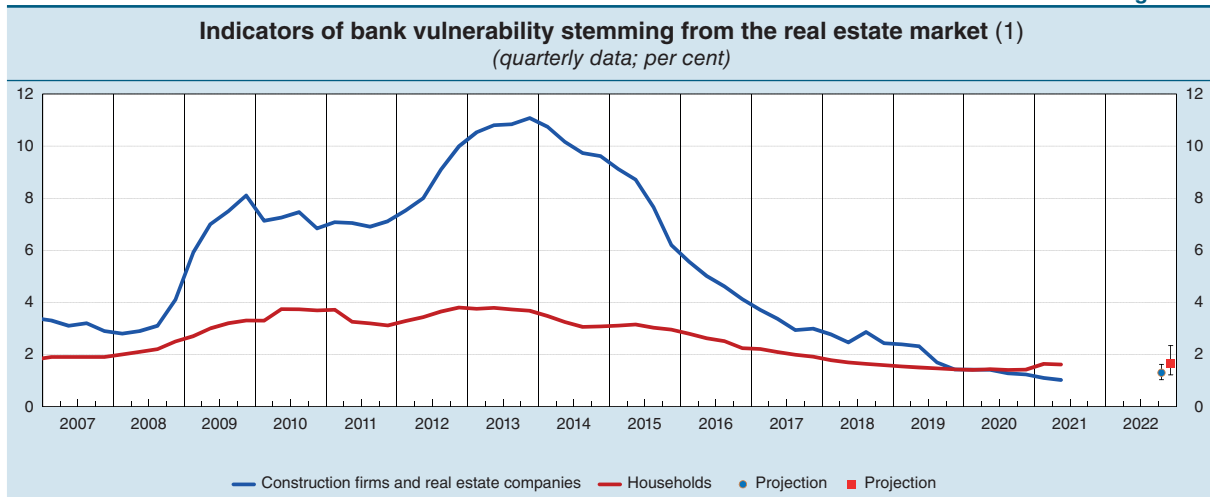


Sources: Based on data from the Bank of Italy, Istat, Osservatorio del Mercato Immobiliare (OMI), Nomisma and Scenari Immobiliari. (1) Data deflated using the change in consumer prices. – (2) Data adjusted for seasonal and calendar effects. Right-hand scale. – (3) The indicator, which is still being tested, uses data drawn from transactions already concluded on the market.

increased markedly in the first half of 2021; nevertheless, the fall in prices continued, and has been pronounced since the onset of the pandemic (Figure 1.5.c).

In the first half of 2021, the vulnerability of Italian banks stemming from real estate exposures stayed at historically low levels (Figure 1.6). According to our projections, at the end of 2022, the annual flow of new non-performing loans for loans to households for house purchase will remain stable in relation to capital; the indicator for loans granted to firms in the real estate sector will increase slightly.

Figure 1.6



(1) Bank vulnerability is measured by the ratio of the flow of new non-performing loans in the last 4 quarters to the average of the banks' capital and reserves in the same period. For the projections for the fourth quarter of 2022, the graph shows the medians and the 10th and 90th percentiles. For the methodology, see F. Ciocchetta, W. Cornacchia, R. Felici and M. Loberto, 'Assessing financial stability risks from the real estate market in Italy', Banca d'Italia, Questioni di Economia e Finanza (Occasional Papers), 323, 2016, and F. Ciocchetta and W. Cornacchia, 'Assessing financial stability risks from the real estate market in Italy: an update', Banca d'Italia, Questioni di Economia e Finanza (Occasional Papers), 493, 2019.



## 1.2 HOUSEHOLDS AND FIRMS

### Households

The risks to financial stability stemming from the household sector continue to be limited. The cyclical improvement was reflected in a rise in income; the propensity to save decreased, but remains above pre-pandemic levels. Financial wealth grew; while rising, indebtedness remains low by international standards.

In June 2021, the ratio of financial debt to disposable income reached 65 per cent, a historically high level and up by 3 percentage points compared with end-2019; however, it is still much lower than the euro-area average (97.9 per cent). In September, borrowing in connection with house purchases had expanded at a steady pace, by 4.8 per cent on an annualized basis (Figure 1.7) and mortgage loans with a fixed rate for at least ten years accounted for 80.0 per cent of total new lending, in line with the previous months.

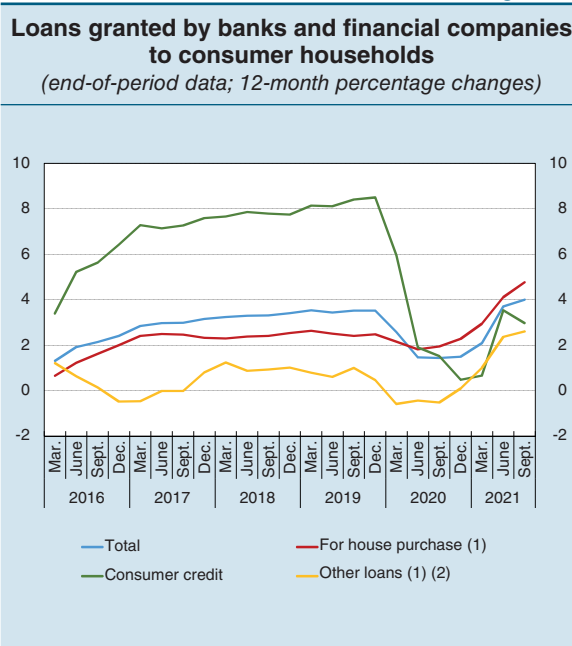
Growth in consumer credit has strengthened since the second quarter of 2021, though it remains below pre-pandemic levels.

The average interest on outstanding loans held practically stable, at 2.7 per cent. The low debt service-to-income ratio helped to keep households' loan repayment capacity high: the annual new non-performing loan rate declined further, to less than 1 per cent in the third quarter (see Figure 2.9).

Credit quality is not expected to be negatively affected by the gradual phasing out of the support measures. At the beginning of November 2021, the debt moratoriums still active in favour of households referred to loans totalling €8 billion,<sup>3</sup> of which one fourth relating to loans for first-home purchase ('Gasparrini Fund'). Almost all the beneficiaries of moratoriums, either expired or still active, who took part in the Special Survey of Italian Households reported that they did not delay the payment of instalments at the end of the suspension period or do not expect to do so.

The projections of the Bank of Italy's microsimulation model,<sup>4</sup> which are based on a scenario consistent with the latest macroeconomic forecasts, indicate that in 2022 the share of financially

Figure 1.7



Source: Supervisory reports.

(1) The figure refers to bank loans only. – (2) Other loans: the most significant are current account overdrafts and mortgage loans other than those for the purchase, construction and restructuring of properties for residential purposes.

vulnerable households and the percentage of debt held by them will rise to 2.2 and 14.2 per cent respectively (Figure 1.8).<sup>5</sup> As in 2021, the main factor underlying the increase is projected to be the strong growth in credit (especially mortgage loans), which would more than offset the positive developments in income.

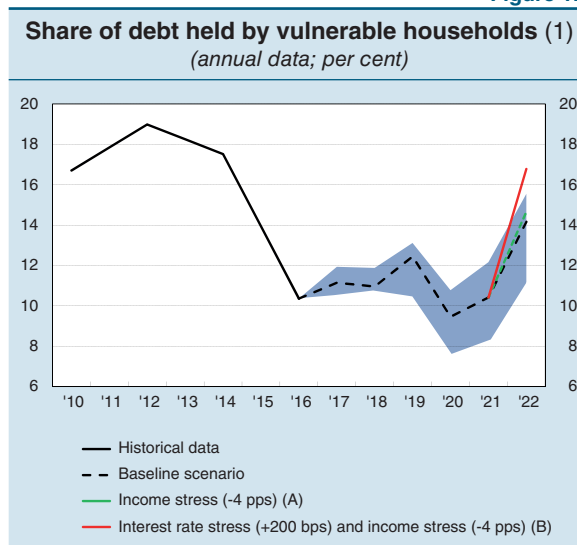
Should developments in income and interest rates prove particularly unfavourable,<sup>6</sup> the share of financially vulnerable households and the percentage of debt held by them would rise slightly, to 2.7 and 16.8 per cent respectively, in any case remaining below the levels recorded during the sovereign debt crisis.

In the first half of 2021, households' financial wealth grew owing to the rise in asset prices and in savings. Based on data from the Special Survey of Italian Households, changes in wealth were nonetheless uneven: it is estimated to have declined for just under one third of households and to have increased for about 8 per cent of them. Payroll employees and persons with higher educational attainment appeared to fare best.

New investments were concentrated in more liquid or diversified assets, such as bank and postal deposits, investment fund units and insurance policies. The strong growth in deposits was uneven by size bracket; those in the bottom bracket decreased in amount compared with end-2020, while those in the other brackets increased, especially in the median one (Figure 1.9; see *Financial Stability Report*, 1, 2021).

The increase in life insurance products was accompanied by a decrease in the share of more traditional products and the simultaneous growth in Class III policies (unit- and index-linked policies; see Figure 2.23.a), whose risk-return profiles make them more similar to investment funds.

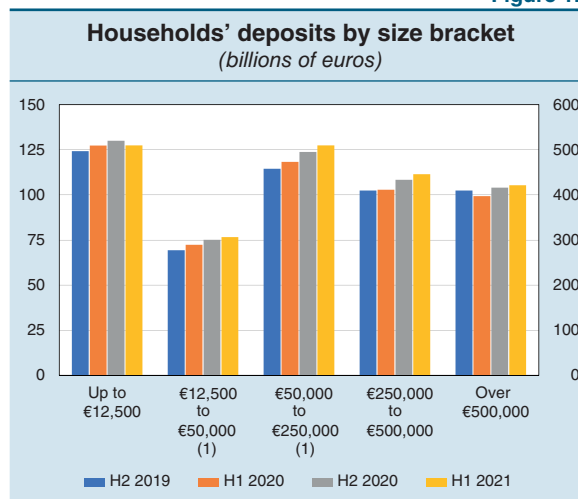
Figure 1.8



Source: Based on data from the Survey on Household Income and Wealth (SHIW).

(1) Households are considered vulnerable when their debt-service ratio is above 30 per cent and their equivalized disposable income is below the median. The latest SHIW data available refer to 2016. The shaded area represents the interval between the 10th and the 90th percentiles of the probability distribution in the simulations. Compared with the baseline scenario, the assumptions for 2022 are that: (A) the growth rate of nominal income is 4 percentage points lower; (B) the 3-month EURIBOR, the 10-year interest rate swap (IRS) and the interest rate on consumer credit are 200 basis points higher and the growth rate of nominal income is 4 percentage points lower.

Figure 1.9



Source: Supervisory reports.  
(1) Right-hand scale.

<sup>5</sup> The share of financially vulnerable households is calculated on total households, less of one fifth of which are indebted; the share of debt held by financially vulnerable households is calculated on total indebted households only.

<sup>6</sup> Compared with the baseline scenario, this assumes a rise of 200 basis points in interest rates and a reduction of 4 percentage points in the growth rate of nominal income (around two standard deviations of the yearly variations recorded in the period 2003-20).



## Firms

The financial situation of firms is improving significantly, on account of a strong recovery in profitability, abundant liquidity and favourable bank and bond funding conditions. Government support measures continue to buoy businesses' capacity to repay loans.

The recovery in economic activity has enabled a strong rebound in corporate profitability. Compared with the low recorded in the second quarter of 2020, gross operating income rose by 9.1 per cent in mid-2021, returning to pre-pandemic levels. Among the firms included in the Bank of Italy's Business Outlook Survey, the share of those expecting to post a profit at the end of the year stands at 71 per cent, up by 9 percentage points compared with the figures reported for 2020 and just below the average for the previous years. The improvement was recorded across all size classes and in the main economic sectors.

The rise in profitability is expected to continue into next year. The profits expected by analysts for listed companies in 2022 are higher than those predicted for this year (Figure 1.10) and have been gradually revised upwards.

The recovery in cash flows was associated with a further improvement in firms' liquidity position. At aggregate level, liquidity rose by more than €100 billion between end-2019 and June 2021, to 28 per cent of GDP. The firms interviewed in the Business Outlook Survey do not expect major difficulties in carrying out their ongoing operations until the end of the year; only 4 per cent believe they have limited cash holdings.

In the first half of 2021, leverage (calculated as the ratio of financial debt to the sum of financial debt and net equity) decreased slightly, to 39.9 per cent; however, it is still 1.3 percentage points higher than at the start of the pandemic. In the major European economies, the dynamics of leverage since end-2019 have been uneven: indebtedness has contributed to its growth in all countries, while the impact of the market value of equity has differed (Figure 1.11). Going forward, the Italian firms interviewed in the Business Outlook Survey expect leverage to decrease by the end of the year.

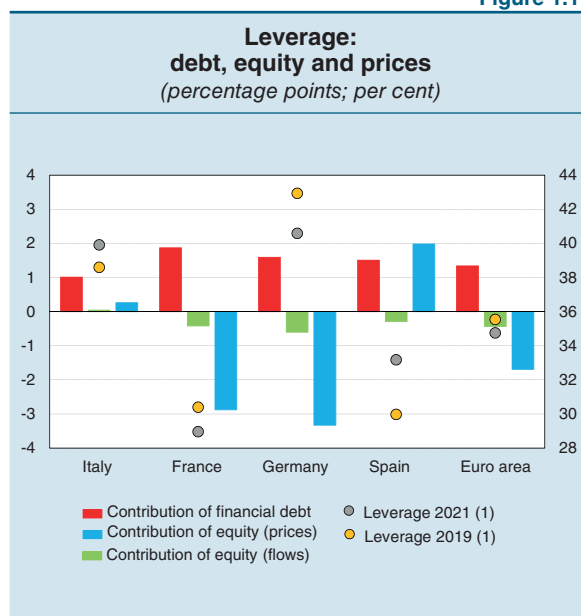
Figure 1.10



Source: Bloomberg.

(1) Changes in the index of profits expected by analysts for 2022 compared with 2021. The total includes the energy and public utilities sectors. Based on a closed sample of 173 companies listed as at March 2021, accounting for 96 per cent of the market capitalization of non-financial corporations.

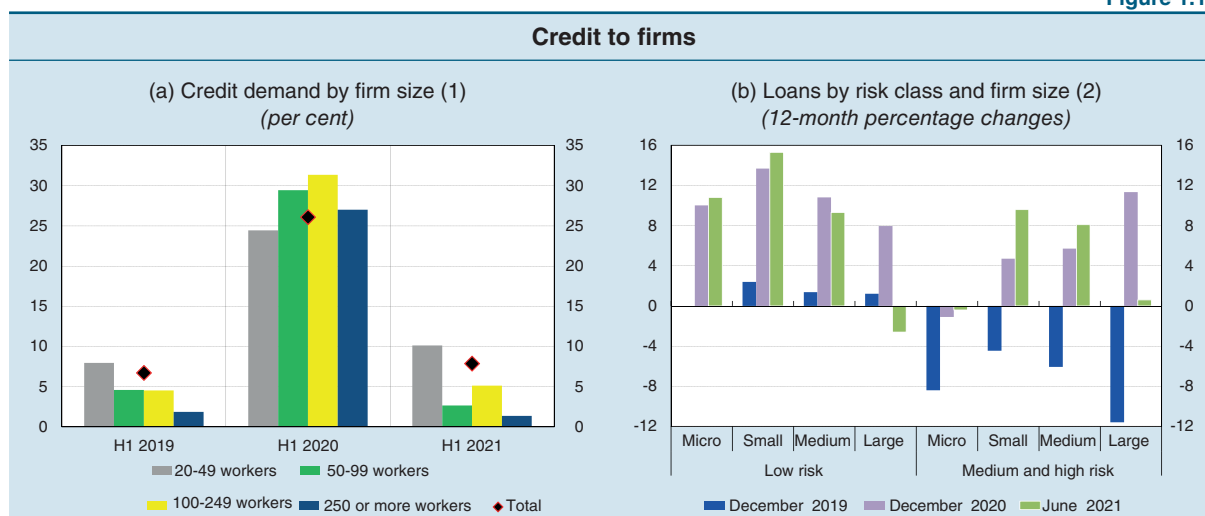
Figure 1.11



Sources: Bank of Italy and ECB.

(1) The histograms break down the change in leverage into three contributory factors: financial debt, net flows of shares and participating interests, and changes in the market value of equity. An increase (decrease) in debt (equity) implies a positive contribution to leverage. For 2021, the data refer to the second quarter. Right-hand scale.

Figure 1.12



Sources: Bank of Italy and Cerved.

(1) Balance between the share of firms that increased their demand for bank loans compared with the previous half of the year and the share of firms that decreased it. The data refer to more than 4,000 industrial and service firms that took part in the Bank of Italy's Business Outlook Survey. – (2) The data refer to a sample of about 510,000 limited companies. Loans include those granted by financial companies, take account of securitizations and also include bad loans. Allocation into the risk groups is based on Cerved's CeBi-Score4 indicator. Low (high) risk firms have a score ranging from 1 to 4 (5 to 10). The breakdown by firm size is in accordance with Commission Recommendation 2003/361/EC, which defines micro firms as those employing fewer than 10 workers and whose turnover or total assets do not exceed €2 million; small firms as those employing fewer than 50 workers and whose turnover or total assets do not exceed €10 million and which are not included among micro firms; medium-sized firms as those employing fewer than 250 workers and whose turnover or total assets do not exceed €50 million and €43 million respectively and which are not included among micro or small firms; and large firms as all the remaining ones.

The improvement in profitability and abundant liquidity have both played a part in reducing credit demand, which remains relatively high only for firms employing between 20 and 49 workers (Figure 1.12.a). Unlike last year, demand for loans was motivated by the need to cover investment rather than by that of funding working capital. According to the findings of the euro area bank lending survey (BLS), demand continued to weaken in the third quarter of the year as well.

The expansion in credit during the pandemic mostly concerned less risky firms; however, lending started to rise again for vulnerable firms too, with the exception of micro-firms (Figure 1.12.b).

In 2021, firms increasingly turned to bond funding, in line with similar developments in the euro area. Gross placements in the first nine months of the year (€51 billion) surpassed the historical highs of previous years; most of the issuance took place in the first half of the year. About 60 per cent of placements were made by financially sound firms, in line with what was observed over the course of 2020 (see the box 'Bond funding during the pandemic').

### BOND FUNDING DURING THE PANDEMIC<sup>1</sup>

Analysis of microdata on bond issuance by Italian firms makes it possible to examine their dynamics during the pandemic and assess their complementary or substitute role with respect to bank credit.<sup>2</sup>

<sup>1</sup> By Giorgio Meucci and Fabio Parlapiano.

<sup>2</sup> The analysis uses a large number of databases covering the features of bond issues (the Securities Database and Dealogic), firms' balance sheets (Cerved), firms' credit relations with the banking system (Central Credit Register), and public guarantees on loans (Mediocredito Centrale and SACE). Further details are available in G. Meucci and F. Parlapiano, 'Corporate bond financing of Italian non-financial firms', Banca d'Italia, Questioni di Economia e Finanza (Occasional Papers), forthcoming.

The effects of the pandemic crisis on the bond market were sharp but short-lived, limited to the first month in which businesses were closed. The monetary and fiscal policy response enabled a rapid recovery in bond funding in the following months, above all for firms with high credit ratings (Figure A); the total amount of bonds ascribable to those firms reached around 60 per cent, from 30 per cent in the previous three years. Conversely, accessing the market was more difficult for riskier firms: in 2020, new placements were just over half (57 per cent) the average level for the period 2017-19.

For the sample of fixed-rate bonds,<sup>3</sup> the interest rate at issue rose by about 40 basis points compared with pre-pandemic levels and maturity decreased by more than 24 months. This trend is not ascribable to the riskiness of issuers, whose average rating improved compared with the past; rather, it is likely due to the rise in the risk premiums demanded by investors.

In 2020, the issuance of mini-bonds covered by the Central Guarantee Fund, whose role was strengthened by the government support measures, grew significantly, to a historical high of 53 issues amounting to about €88 million. Mini-bond issuers are mostly small and medium-sized enterprises (SMEs) in sound financial conditions.

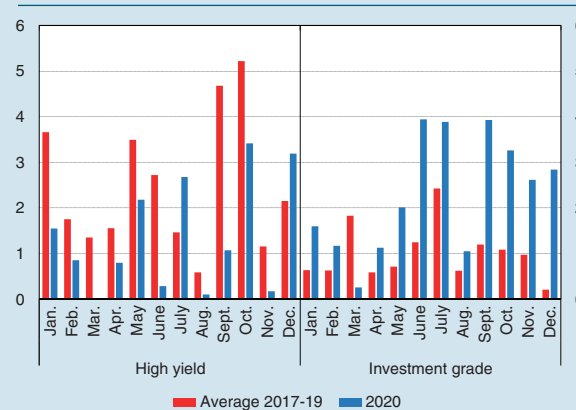
During the pandemic, bond funding played a complementary role to bank credit, unlike what was observed during the global financial crisis and the sovereign debt crisis, which were marked by a weakening of banks' balance sheets and the ensuing tightening of credit to firms.<sup>4</sup> In fact, for firms issuing bonds, the change in bank credit between March and December of last year exceeded €17 billion (Figure B), corresponding to an annual growth rate of more than 50 per cent (compared with 7 per cent for the other firms) and accounting for more than one third of the overall change in lending to firms (€49 billion).

<sup>3</sup> The sample of fixed-rate bonds covers more than 60 per cent of the euro-denominated issues made by Italian non-financial corporations and included in the data analysed. It is possible to observe a similar deterioration in the average borrowing conditions also by using a closed sample of issuers.

<sup>4</sup> C. Altavilla, M. Darracq Pariès and G. Nicoletti, 'Loan supply, credit markets and the euro area financial crisis', *Journal of Banking & Finance*, 109, 2019, 105658.

Figure A

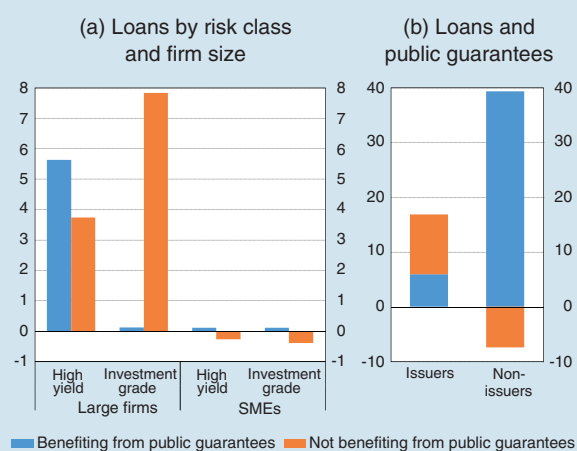
**Bond issues by risk class (1)**  
(billions of euros)



Sources: Securities Database, Cerved and Dealogic.  
(1) Amounts issued by Italian non-financial corporations and groups, including foreign subsidiaries. Investment grade and high yield issues are those made by issuers with a Cerved rating of 1 to 4 and of 5 to 10, respectively.

Figure B

**Change in credit for issuing firms (1)**  
(billions of euros)



Sources: Securities Database, Central Credit Register, Dealogic, Mediocredito Centrale and SACE.  
(1) Change in the overall bank credit used between March and December 2020 for all non-financial corporations that issued bonds in 2020 and for which the balance sheets were available at December 2019. Investment grade and high yield issues are those made by issuers with a Cerved rating of 1 to 4 and of 5 to 10 respectively.

Issuers took out bank loans but only made limited use of public guarantees; the share of loans ascribable to firms benefiting from the guarantees was less than 35 per cent, while for non-issuing firms the corresponding figure was much higher. Among large firms, only the riskier ones made use of the guarantees. As regards small and medium-sized issuing firms, a small contraction in credit was instead observed. This was attributable to those firms that did not benefit from public guarantees (or were unable to do so because of a lack of eligibility requirements).

Estimates of liquidity needs at individual firm level suggest<sup>5</sup> that the strong growth in credit observed for issuing firms is not due to their presumable liquidity deficit; the precautionary motive might therefore have been crucial.

<sup>5</sup> For an estimate of the liquidity needs of the non-financial corporations affected by the pandemic, see A. De Socio, S. Narizzano, T. Orlando, F. Parlapiano, G. Rodano, E. Sette and G. Viggiano, 'The effects of the COVID-19 shock on corporates' liquidity needs, balance sheets and riskiness', Banca d'Italia, *Note Covid-19*, 13 November 2020.

For the largest Italian firms, the risk of an increase in the cost of bond funding is higher than the euro-area average. In fact, in the first ten months of the year, firms with a BBB rating (those most exposed to the risk of a downgrading to speculative grade) accounted for 66 per cent of Italian bond issues placed in the international markets; the equivalent figure for the other euro-area countries was 48 per cent.<sup>7</sup>

Since last April, the number and scale of the downgrades have nevertheless fallen sharply, both in Italy and in the rest of the euro area. Upward revisions of issuers' credit ratings exceeded downward revisions: for Italian firms, downgrades accounted for 0.8 per cent of the total nominal amount in circulation, while upgrades accounted for 3.4 per cent (the figures for the other euro-area countries were 3.5 and 5.4 per cent respectively).

The issuance of bonds to finance projects with environmental sustainability features (green bonds) continued; however, the volumes outstanding as a share of GDP are still lower than in the other major euro-area countries (1.2 and 3.1 per cent respectively; see the box 'The environmental, social and governance sustainability of corporate bond issuers in Italy and the euro area').

## THE ENVIRONMENTAL, SOCIAL AND GOVERNANCE SUSTAINABILITY OF CORPORATE BOND ISSUERS IN ITALY AND THE EURO AREA<sup>1</sup>

The European Green Deal proposes making Europe the first carbon-neutral continent by 2050, with a 55 per cent reduction in emissions by 2030. One third of the resources disbursed under the Next Generation EU programme are allocated to this objective.

The commitment to environment, social and governance (ESG) issues is becoming an important criterion for firms' access to capital markets. The most polluting firms are in fact more exposed to transition risks on the path towards a more sustainable economy.

<sup>1</sup> By Giovanni Secondin.

<sup>7</sup> The estimate refers to a sample of securities included in the ICE Bank of America Merrill Lynch indices, which are largely representative of total bond issues traded in the markets. The ICE synthetic rating is used, which is calculated as the average of the ratings assigned by Moody's, Standard & Poor's and Fitch Ratings.

Looking at a sample of euro-area non-financial corporations,<sup>2</sup> Italy's ESG profile score is a little higher than the euro-area average, owing above all to the effect of its different sectoral composition (see the table).<sup>3</sup> By limiting the analysis to the more representative sectors, Italy's ESG score is higher on average than that of issuers in other countries in the public utilities sector, while it is lower in sectors such as energy and transport. The score just for the environmental component – measured in terms of carbon intensity – is instead better for euro-area firms. This result is conditioned by the greater contribution to pollution of the energy and public utilities sectors, which in Italy represent over 60 per cent of the bond market, against a share of just over 20 per cent in the rest of the euro area.<sup>4</sup> The euro area's energy sector also benefits from the lower emissions of firms that are undergoing a transition towards more advanced and sustainable production; in the transport sector, carbon emissions are penalized by the data for airlines, which are not in the Italian index.

There are significant differences between domestic and euro-area issuers, also when comparing ESG scores and carbon intensity with credit ratings. In the case of scores for the aggregate assessment of Italy, they are influenced by less favourable judgements for issuers with a lower credit rating (high yield), whose share is greater than the euro-area average (27 against 12 per cent). In the investment grade segment, Italian firms instead have higher scores. The opposite occurs for carbon intensity: the high yield sector produces relatively low emissions, while the investment grade sector has a higher level of emissions by international standards. The different sectoral composition of the two geographical areas is important in

Table

**ESG scores and greenhouse gas emissions compared with the turnover of euro-area bond issuers (1)**

SECTOR	ESG score (2)				Greenhouse gas emissions (3)			
	Italy	Weight	Euro area excluding Italy	Weight	Italy	Weight	Euro area excluding Italy	Weight
Energy	6.4	24.0	7.4	7.8	647.2	22.6	346.5	7.4
Telecommunications	5.6	11.3	6.0	8.4	30.5	10.6	28.3	8.3
Transport	5.6	16.5	6.6	7.7	57.8	15.5	154.3	9.3
Public utilities	8.4	42.0	7.8	15.5	599.1	39.5	572.1	15.1
Other (4)	5.9	6.3	6.6	60.6	232.0	11.7	176.1	60.0
<b>Total</b>	<b>7.0</b>	<b>100.0</b>	<b>6.8</b>	<b>100.0</b>	<b>422.6</b>	<b>100.0</b>	<b>234.0</b>	<b>100.0</b>
<i>of which: investment grade</i>	7.4	72.6	6.9	87.8	566.1	72.9	224.1	85.4
<i>high yield</i>	5.7	27.4	6.2	12.2	36.4	27.1	291.5	14.6

Sources: Based on the ICE Bank of America Merrill Lynch bond indices as at 30 September 2021, integrated with ESG scores and with the carbon intensity figures calculated by MSCI for issuers.

(1) The analysis only includes euro-denominated debt securities of non-financial corporations resident in euro-area countries. Weights are given by the sum of the securities market value for firms that have an ESG score or data for their greenhouse gas emissions (for which the sample coverage is 87 and 92 per cent respectively). – (2) Score calculated by MSCI by normalizing the weighted average of the assessments obtained for each area assessed (environment, social impact and governance) for the set of firms operating in the same sector. – (3) Intensity of greenhouse gas emissions (ratio of tonnes of emissions to turnover in millions of dollars). Emissions include: (a) those from direct sources or controlled by companies, typically from the combustion of fuel; and (b) those caused by the production of electricity purchased by firms to carry out their activities. – (4) Aggregate that includes all sectors with a share of less than 5 per cent in Italy.

<sup>2</sup> It involves 434 firms (46 of which are Italian) issuing 1,906 debt securities (186 of which are Italian), which are part of the ICE Bank of America Merrill Lynch indices, integrated with ESG scores and with carbon intensity figures calculated by MSCI. The sample includes large firms and is therefore not entirely representative of the national production systems.

<sup>3</sup> The MSCI methodology for preparing ESG scores is based on the analysis of 35 indicators for various macro-areas for each of the three pillars: environmental, social and governance.

<sup>4</sup> The weights of the sectors used for analysing ESG scores are different from those used for analysing greenhouse gas emissions (see note (1) to the table).

these comparisons too: the segment with less credit risk in Italy is represented by large firms operating in the public utilities and energy sectors, which have higher ESG scores, but with production that is currently less sustainable from an environmental point of view. This latter characteristic exposes Italy's entrepreneurial system to risks in raising capital on international markets, given the growing focus of investors on environmental issues, and highlights the need for a rapid transition towards less polluting technologies.

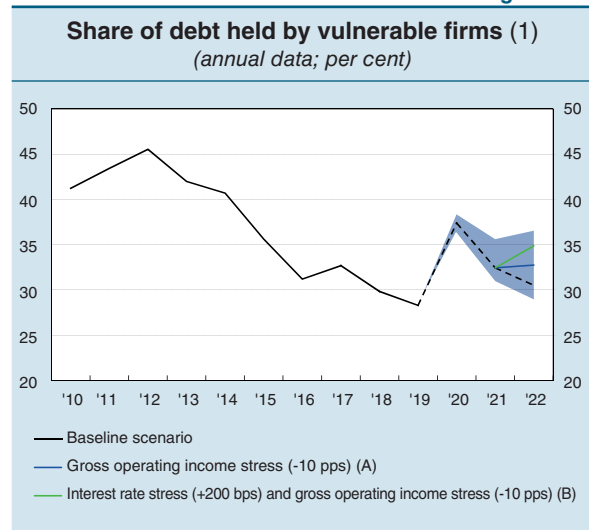
Loan repayment capacity is favoured by the recovery in economic activity, the low interest rate environment, and the impact of the support measures. The ratio of interest expense to gross operating income reached a new historical low (6.1 per cent in June); the non-performing rate of bank loans is low (1.8 per cent in the third quarter).

The number of bankruptcies and exits from the market in the first half of the year is still below 2019 levels (see *Financial Stability Report*, 2, 2020), despite the fall in turnover recorded in the early months of the pandemic: in this respect, a crucial role was played by public sector support, especially loan guarantees and debt moratoriums (see the box 'The riskiness of firms benefiting from liquidity support measures' in Chapter 2).

The phasing out of moratoriums is occurring without any tensions. According to the Bank of Italy's Business Outlook Survey, moratoriums have expired for 66 per cent of beneficiary firms, and almost all of them have resumed regular payments. Among the firms for which moratoriums are still active, about one fourth had requested an extension.

Developments in firms' vulnerability will depend above all on the economic situation. The projections of the Bank of Italy's microsimulation model indicate that, in a scenario consistent with the latest macroeconomic forecasts, the share of debt held by vulnerable firms will decrease to 30 per cent by the end of 2022 (Figure 1.13); fragility is expected to remain highest mainly in the construction sector.<sup>8</sup> If the dynamics of profitability prove unfavourable, then this share would reach 33 per cent; in a particularly adverse scenario, characterized by very negative changes in profitability and a significant rise in interest rates, the share would reach 35 per cent, still a historically low level.<sup>9</sup>

Figure 1.13



Source: Based on Cerved data.

(1) Vulnerable firms are those whose gross operating income is negative or whose ratio of net interest expense to gross operating income exceeds 50 per cent. The definition excludes firms with bad loans. The latest available annual financial statements for the whole sample of firms refer to 2019. The shaded area indicates a confidence interval of 95 per cent around the baseline scenario. Compared with the baseline scenario, the assumptions for 2022 are that: (A) the growth rate of nominal gross operating income is 10 percentage points lower; (B) the interest rate is 200 basis points higher and the growth rate of nominal gross operating income is 10 percentage points lower.

<sup>8</sup> For details on the microsimulation model, see A. De Socio and V. Michelangeli, 'A model to assess the financial vulnerability of Italian firms', *Journal of Policy Modeling*, 39, 2017, pp. 147-168, also published as 'Modelling Italian firms' financial vulnerability', *Banca d'Italia, Questioni di Economia e Finanza (Occasional Papers)*, 293, 2015.

<sup>9</sup> Compared with the baseline scenario, the particularly adverse scenario assumes a rise in interest rates of 200 basis points (greater than the increases recorded in 2007 and 2011) and a decline of 10 percentage points in the growth rate of gross nominal income, equal to around two standard deviations of the annual variations recorded in the period 2003-20.

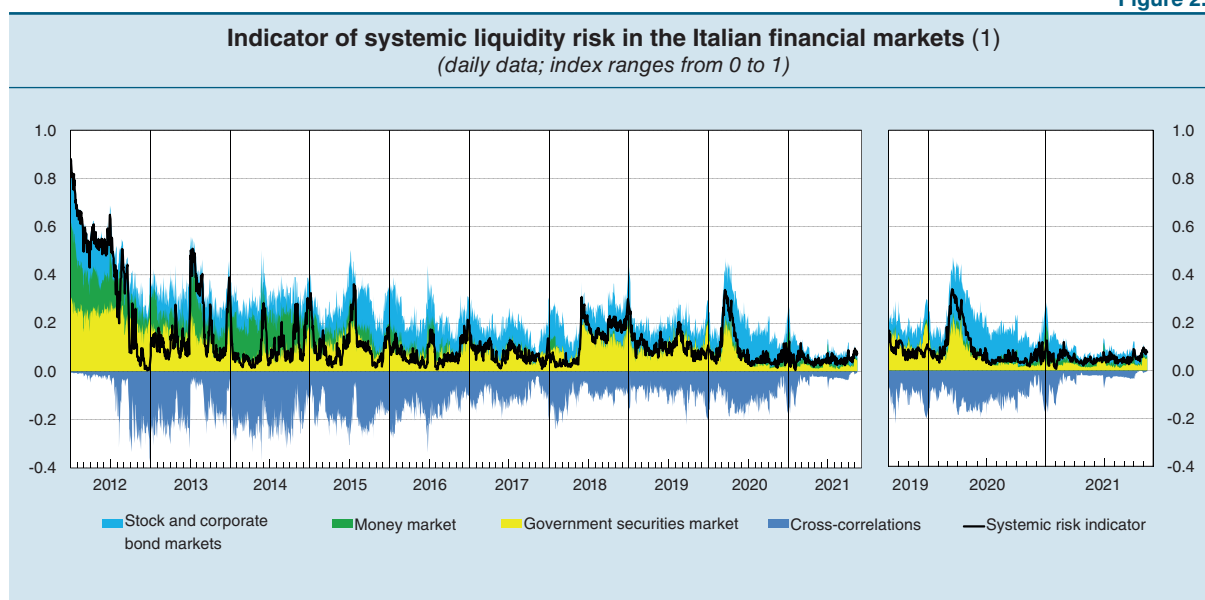


# 2 FINANCIAL SYSTEM RISKS

## 2.1 THE MONEY AND FINANCIAL MARKETS

Liquidity conditions on Italy's financial markets are relaxed, supported by the Eurosystem's public and private sector securities purchase programmes. The indicator of systemic liquidity risk remains at pre-pandemic values (Figure 2.1). Sudden spikes in volatility at global level, caused for example by a sharp rise in interest rates (see Section 1.1), may nevertheless be a risk factor for liquidity on Italy's financial markets.

Figure 2.1



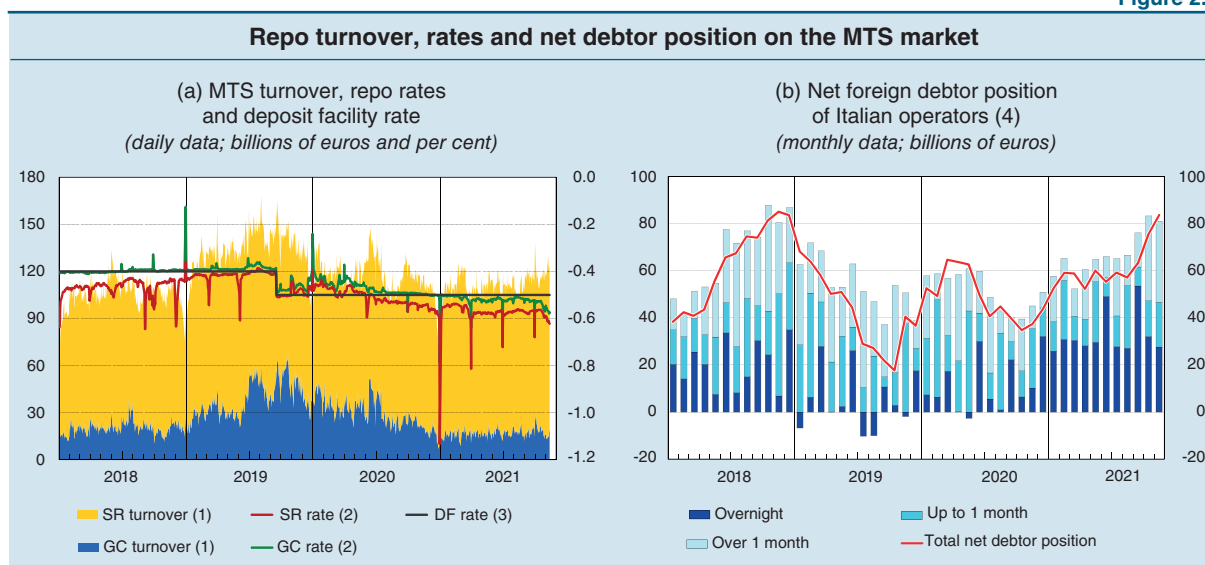
Sources: Based on data from the Bank of Italy, Bloomberg, e-MID SIM, Moody's KMV, MTS and Refinitiv.

(1) The systemic risk indicator measures the combined risk in the money market, the secondary market for government securities, and the stock and corporate bond markets. The index range is from 0 (minimum risk) to 1 (maximum risk). The graph also shows the contributions to the systemic risk indicator of the individual markets and the correlations between them. For the methodology used in constructing the indicator, see *Financial Stability Report*, 1, 2014.

Since the end of last April, there has been little activity in the general collateral segment on the repo market as a result of the liquidity provided by the Eurosystem and banks' lower funding needs. On the other hand, there has been substantial trading in the special repo segment, driven by robust activity on the secondary market for government securities. In a low volatility environment, demand remains buoyant for Italian government securities, which are used as collateral in repo contracts. The overnight repo rate has stabilized at levels below that of the deposit facility, declining further at the end-of-quarter dates, just as in the other euro-area countries (Figure 2.2.a).

The net foreign debtor position of Italian operators on the MTS repo market rose, mainly reflecting securities lending activity conducted in the special repo segment (Figure 2.2.b). Since last May, the Ministry of Economy and Finance (MEF) began operating in the MTS repo market, not only to

Figure 2.2



Source: Based on MTS data.

(1) Daily turnover in general collateral (GC) and special repos (SR) on the MTS market by contract settlement date. – (2) Calculated in reference to daily contracts for Italian government securities made on MTS Repo. Right-hand scale. – (3) Interest rate on the Eurosystem's deposit facility (DF). – (4) Calculated on the basis of the cash value of the outstanding contracts on the MTS repo market. Monthly averages of daily data for total net position; for the breakdown by maturity, end-of-period data.

manage its own liquidity needs, but also to provide support to the secondary market.<sup>1</sup> The contribution of the securities lending programmes conducted by the Bank of Italy limited the increases in the cost of borrowing for specific types of securities on the repo market ('specialness').

At international level, the reform process for money market benchmark rates continues, partly in view of the future retirement, starting next year, of the LIBOR rates for the main international currencies and of the EONIA rate. In numerous jurisdictions, new risk-free overnight rates were introduced, such as the euro short-term rate (€STR) in the euro area. For the transition to the new regime, interest rates with a term of more than one day will be required in order to substitute the traditional benchmark rates and to act as the new index for previously stipulated contracts.<sup>2</sup> However, the availability of representative data on money market trading is limited; there are many indexation requirements and there is no single calculation methodology (see the box 'The new euro money market benchmarks').

### THE NEW EURO MONEY MARKET BENCHMARKS<sup>1</sup>

Money market benchmarks are used as a reference for numerous financial contracts and instruments and this is why they play a very important role in the economic system. This role was traditionally

<sup>1</sup> By Daniela Della Gatta.

<sup>1</sup> MEF, 'Launch of the repurchase agreements (Repo) activity. A new instrument for managing Treasury cash liquidity', press release, 17 May 2021. To conduct these new operations, a portfolio of government securities was constituted to back funding operations on the market. Contract maturities negotiated by the MEF were more than one month on average and the negotiations were conducted with Italian and foreign operators.

<sup>2</sup> For contracts and indexed financial instruments, EU legislation requires the inclusion of fallback provisions so that a replacement index can be found if a reference index is discontinued.



played by interbank offered rates (IBOR) such as the London interbank offered rate (LIBOR) and the euro interbank offered rate (EURIBOR).

In Italy in the last five years, more than one fourth of residential mortgages, 90 per cent of loans to firms and over one fifth of bank bonds were indexed to floating rates (see the table). In the same period, for almost all of these contracts, the benchmark rate was the EURIBOR.

Table

<b>New floating-rate loan disbursements and bonds issued by banks in Italy</b> (per cent; annual data)				
	Loans to firms	Bank bond issues net of buybacks (1)	Loans to households – mortgages	Loans to households – consumer credit
2016	94.4	33.3	37.4	16.1
2017	91.5	15.9	33.0	9.7
2018	91.8	31.6	33.2	8.7
2019	91.0	17.0	27.8	8.1
2020	83.3	11.7	18.1	8.3
Average 2016-20	90.4	21.9	29.9	10.2

Source: Bank of Italy, individual supervisory reports for bank bond issues; ECB, Statistical Data Warehouse for loans.  
(1) The data refer to bank bonds entered on the liability side, net of buybacks by the issuer.

Following a global reform process that began in 2014 and is still under way, new overnight rates that can be considered risk free were introduced as an alternative to the traditional benchmarks in the main currency areas and the methodologies for calculating the IBOR were reinforced.

In the euro area, the European Central Bank began to produce the euro short-term rate (€STR), a risk-free overnight rate that is representative for a sample of banks of the cost of unsecured wholesale funding in euro. Unlike the LIBOR rates which are expected to be discontinued<sup>2</sup> the EURIBOR continues to be used thanks to a new methodology that has made its calculation more robust.<sup>3</sup>

Within the European Union, Regulation (EU) 2016/1011 (the Benchmark Regulation) on indices used as benchmarks in financial instruments and financial contracts states that indexed contracts must include clauses with fallback provisions, setting out the actions that they would take in the event that a benchmark materially changes or ceases to be provided.<sup>4</sup>

<sup>2</sup> According to what was announced last March by the Financial Conduct Authority of the United Kingdom, the LIBOR rates for the main international currencies will be discontinued at the end of 2021 (the USD LIBOR in June 2023). The euro overnight index average (EONIA) rate will also be discontinued at the end of 2021.

<sup>3</sup> The methodology for calculating the EURIBOR is based on data pertaining to transactions made by a sample of banks or, in the event that they are not available, based on estimates of the cost of funding borne by the intermediaries themselves.

<sup>4</sup> The EU Benchmark Regulation also requires Member States to designate an authority tasked with assessing any inadequacies of the fallback provisions, should the substitute benchmarks indicated therein fail to reflect the economic reality that the benchmark being phased out was designed to measure, or if their application were to threaten a Member State's financial stability.

With reference to the EURIBOR, in May 2021, the working group on euro risk-free rates<sup>5</sup> identified the fallback rates based on the €STR; these rates can be calculated by taking different approaches according to the type of financial instruments, the market needs to which they must respond, and by applying a spread adjustment to take account of credit risk premiums.<sup>6</sup>

The Benchmark Regulation also states that for outstanding contracts without suitable fallback provisions, the European Commission can designate a statutory replacement rate to curtail the risk of legal disputes and potentially negative repercussions on financial stability. The Commission recently opted to do this and identified a replacement rate for EONIA and the Swiss Franc LIBOR.<sup>7</sup>

In jurisdictions where the cessation of IBOR rates has been agreed, such as the United States, different types of rates that incorporate credit risk premiums have been developed to meet the needs of some market operators. The authorities have expressed concerns that the adoption of these benchmarks could give rise to the same issues that previously undermined the integrity and representativeness of the LIBOR rates.<sup>8</sup> In the euro area, these fears are limited for the time being because market operators can continue to use EURIBOR.

<sup>5</sup> This is a private-sector working group comprising banks, business and consumer associates, financial companies and benchmark administrators. It was set up in February 2018 by the ECB, the European Commission, the European Securities and Markets Authority (ESMA) and the Financial Services and Markets Authority (FSMA), with the task of identifying a risk-free rate (RFR) for the euro area.

<sup>6</sup> To define the replacement benchmarks it is necessary that, starting with the RFRs, term rates are produced. These rates can be calculated using a backward-looking or forward-looking methodology. If the benchmark for a contract is an interbank rate, such as in the case of traditional IBOR, the alternative rate must also incorporate credit risk and liquidity premiums by applying a spread adjustment based on the RFR.

<sup>7</sup> For further details, see Commission Implementing Regulation (EU) 2021/1847 of 14 October 2021 on the designation of a statutory replacement rate for certain settings of CHF LIBOR and Commission Implementing Regulation (EU) 2021/1848 of 21 October 2021 on the designation of a statutory replacement rate for the benchmark euro overnight index average (EONIA).

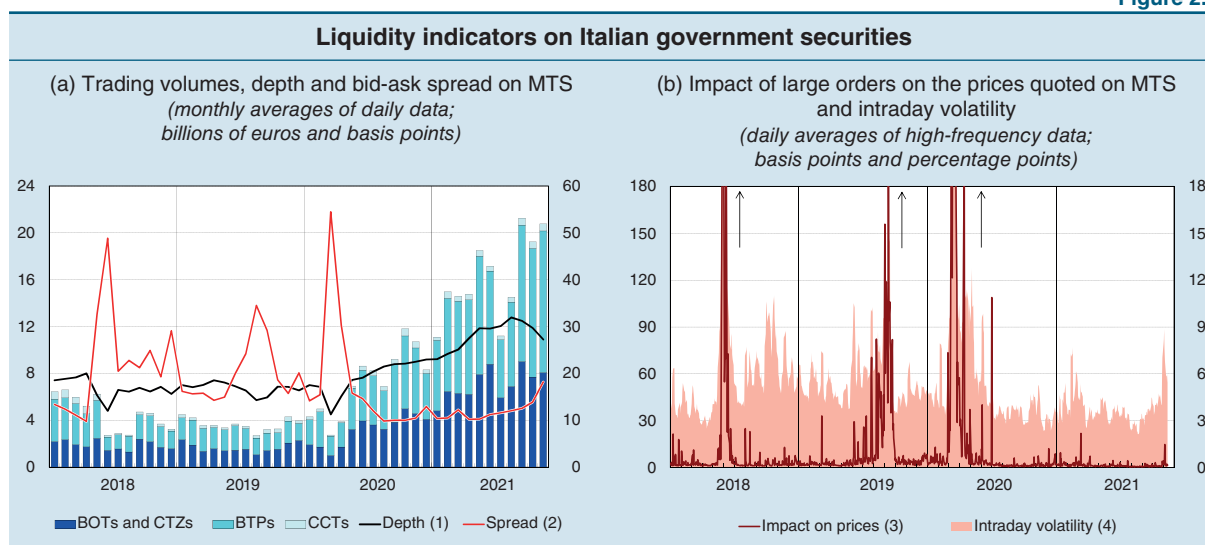
<sup>8</sup> IOSCO, 'Statement on credit sensitive rates', 8 September 2021.

The liquidity conditions in the secondary market for government securities are relaxed overall, despite slight signs of tension recorded between late October and early November, connected with the perception that Eurosystem monetary stimulus could be withdrawn sooner than had been expected (see Section 1.1). In the same period, the average bid-ask spread exceeded 20 basis points in the BTP segment and the intraday price volatility rose by about 10 percentage points. In subsequent weeks, liquidity conditions gradually improved.

Compared with the beginning of the year, the bid-ask spread has remained small on average however (Figure 2.3.a), trading has been high and the market makers' quoted quantities have reached new historical highs, expanding the market's resilience in the face of large orders (Figure 2.3.b). Intraday volatility has remained low on average. The abundant quantities available and low trading costs have supported activity on the government securities market. The average size of transactions on the MTS platform has reached €13 million (compared with around €10 million in the first few months of 2020) and large-sized transactions have become more frequent. Looking forward, sudden spikes in securities' yields could affect market liquidity.

In the first half of 2021, the share of Italian government securities held by banks headquartered in Italy remained stable, at 16.5 per cent, while that of insurance companies declined to 13.0 per cent

Figure 2.3



Source: Based on MTS data.

(1) Calculated as the average of the bid and ask quantities recorded during the entire trading day on BTPs listed on MTS. – (2) Measured as the simple average of the bid-ask spreads observed during the entire trading day for the BTPs listed on MTS. Right-hand scale. – (3) The analysis refers to the 10-year benchmark BTP and is based on data recorded at 5-minute intervals. Average daily impact on bid-ask prices listed on MTS of a sale or purchase order of €50 million. – (4) A measure of volatility (realized volatility) based on intraday yields of 10-year benchmark BTPs calculated at 5-minute intervals; 5-day moving average of annualized values. Right-hand scale.

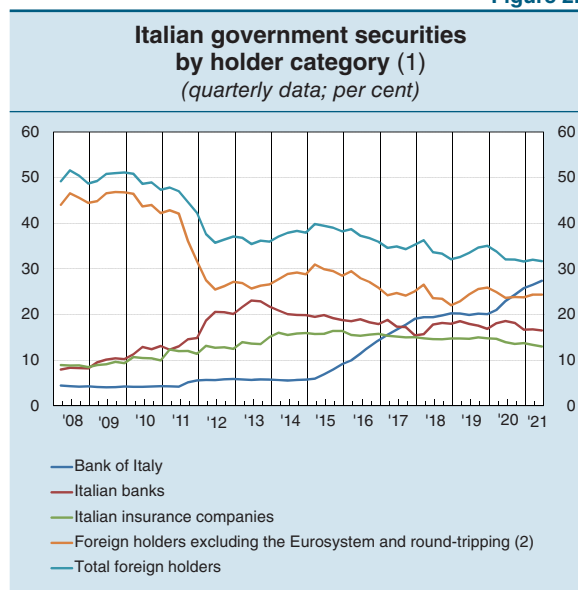
(Figure 2.4). In the same period, the percentage held by the Bank of Italy continued to rise, by 1.6 percentage points, reaching 27.4 per cent; overall, foreign investors' holdings stood at 31.7 per cent.

Funding conditions on the primary market for government securities remained relaxed and issuance continued regularly. The average cost of outstanding government securities, equal to 2.1 per cent at the end of October, continues to fall. The average residual maturity of securities outstanding exceeded seven years for the first time since 2011 (Figure 2.5).

The Treasury's funding requirements for this year, though declining since 2020, remain high.<sup>3</sup> Redemptions of medium- and long-term securities, equal to €213 billion in 2021, will rise to €230 billion in 2022 and to €245 billion in 2023 (Figure 2.6).

Although there has been heightened uncertainty in the last few weeks, the implied volatility

Figure 2.4

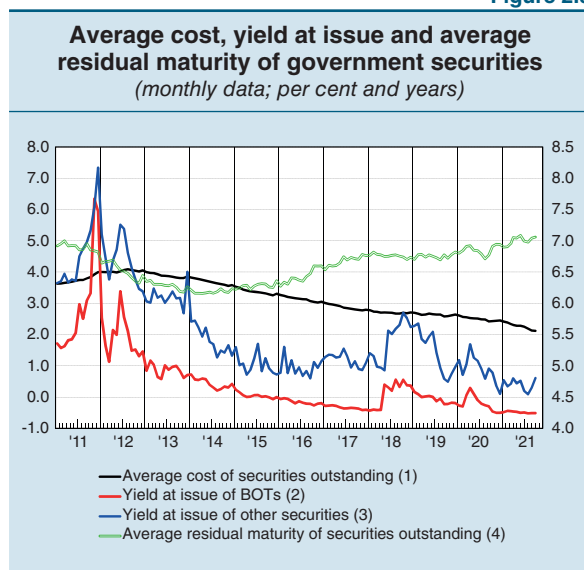


Sources: Bank of Italy, Financial Accounts, and estimates based on Assogestioni and ECB data.

(1) Shares calculated on data at market prices and net of securities held by Italian general government. Data refer to a subset of holders. – (2) Securities held by foreign investors net of those held by the Eurosystem (excluding the Bank of Italy) and by foreign investment and mutual funds attributable to Italian investors.

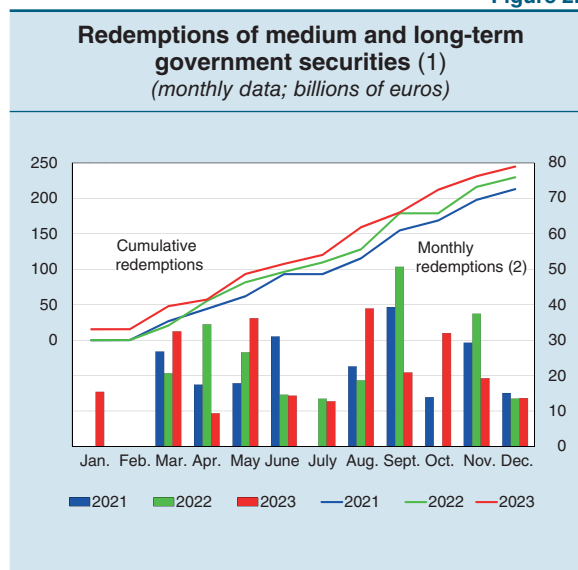
<sup>3</sup> Since the start of the year, Italy has benefited from €11 billion worth of loans under the temporary support programme to mitigate unemployment risks in an emergency (SURE) and from €25 billion worth of NRRP pre-financing, of which €16 billion in loans and €9 billion in grants.

Figure 2.5



Sources: Based on Bank of Italy and Ministry of Economy and Finance data, updated to 31 October 2021.  
(1) Weighted average of the yields at issue of government securities outstanding at end of month. – (2) Weighted average of the yields at issue of all the BOTs placed during the month, by settlement date. – (3) Weighted average of the yields at issue of securities other than BOTs and indexed BTPs placed during the month, by settlement date. – (4) End-of-period values weighted by the outstanding securities. Right-hand scale.

Figure 2.6



Sources: Based on Bank of Italy and Ministry of Economy and Finance data, updated to 8 November 2021.  
(1) Government securities (including those placed on international markets) with maturity at issue of more than one year. Excludes the tranches issued by the Ministry of Economy and Finance to establish its own securities portfolio to be used only for repos. The redemptions of indexed BTPs are not revalued for inflation. – (2) Right-hand scale.

calculated on the option prices on Italian government securities was lower than last April and at levels close to the implied volatility for the German Bund. The risk reversal indicator shows that expectations of a reduction and those of an increase in the value of the futures on ten-year BTPs are broadly balanced. On the CDS market, the premium for insolvency risk on Italian government securities remains at levels lower than those observed prior to the pandemic, although it remains higher than that of the other euro-area countries.

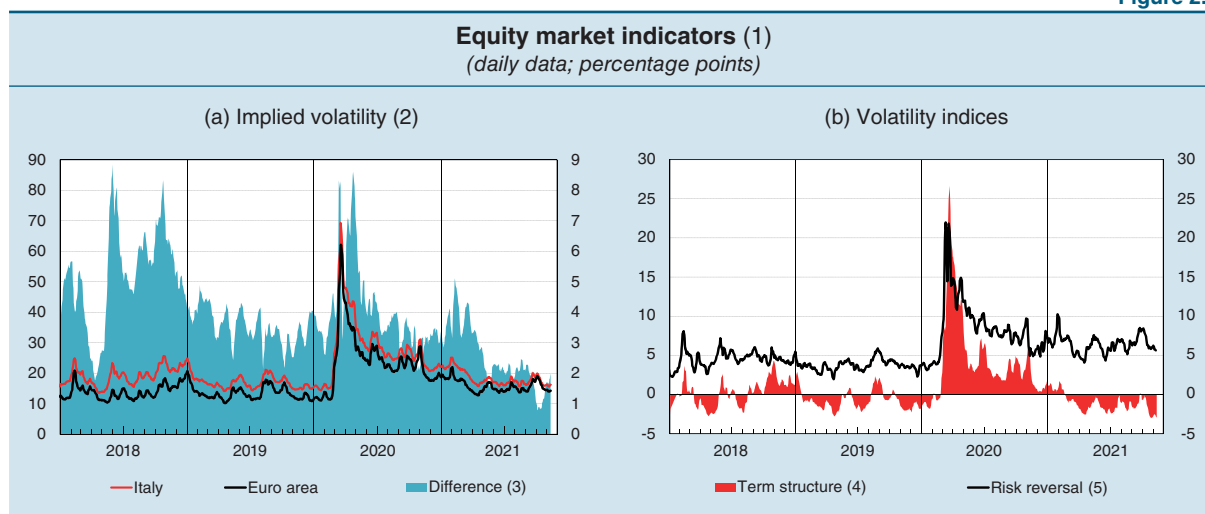
On the Italian private bond market, since last April the yield spread between bonds issued by Italian firms and the risk-free rates (asset swap spread) has continued to indicate an absence of any sign of tensions.<sup>4</sup> The issuance of private green bonds in Italy continues (see Section 1.2). According to our calculations, on the secondary market, the yield on green bonds issued by non-financial corporations is on average lower by about 5 basis points than that of conventional securities with similar maturities (this yield spread is referred to as the ‘greenium’).

Implied volatility in the equity markets remained low and in line with the situation prior to the public health emergency, both in Italy and in the euro area (Figure 2.7.a). If compared with the first few months of 2021, the volatility spread declined, indicating less uncertainty on the part of investors regarding the outlook for recovery of the national economy, compared with the rest of the euro area. After the increase in September, in part linked to tensions on international markets following the Evergrande case (Figure 2.7.b; see Section 1.1), the cost of hedging against sharp falls in equity prices (risk reversal) has decreased.

In the current environment of low volatility, the Cassa di compensazione e garanzia has kept stable the margins applied to Italian government securities and slightly reduced those relating to the equity

<sup>4</sup> Risk-free rates are approximated by the interest rate swap curve.

Figure 2.7



Source: Based on Bloomberg data.

(1) 5-day moving averages. – (2) Volatility implied by the prices of 2-month options on the Italian FTSE MIB index and, for the euro area, the Euro Stoxx 50 index. – (3) Difference between the volatility implied by the prices of 2-month options on the Italian and euro-area stock market indices. Right-hand scale. – (4) Difference between the implied volatility in 2- and 12-month options on the Italian FTSE MIB index. – (5) Difference between the implied volatilities in put and call options on the Italian stock market index with the same delta (0.25) and the same maturity (2 months). The index measures the relative price of the options that protect against a fall in the stock index compared with those that profit if it rises.

segment. At international level, there is continued discussion about the procyclical risks connected with the sudden rise in the margining requirement during the acute phase of the pandemic crisis, both in bilateral contracts and those cleared through a central counterparty.<sup>5</sup>

In response to the recommendations on liquidity risks that might arise from margin calls, issued last year by the European Systemic Risk Board (ESRB), the analyses indicate that in Italy and in the rest of the European Union, the central counterparties are taking progressive approaches to setting the margins so as to avoid excessively procyclical spikes in the requirements. It was further recognized that for trades assisted by a central counterparty, the payment of margins during the most acute phase of the health crisis took place without any significant difficulties, mainly thanks to the abundant liquidity provided by the central banks. The Italian authorities have complied in full with the recommendations.<sup>6</sup>

## 2.2 BANKS

The support measures for households and firms and the economic recovery contributed to mitigating the effects of the pandemic on the quality of banks' assets. The non-performing loan ratio remained stable at historically low levels. Sales of bad and unlikely-to-pay loans continued, helping to further reduce the stock of NPLs and their share of total lending.

<sup>5</sup> Work has begun at international level at the behest of the Financial Stability Board (FSB) and is conducted in collaboration with the Basel Committee for Banking Supervision (BCBS), with the Committee on Payments and Market Infrastructures (CPMI) and the International Organization of Securities Commissions (IOSCO).

<sup>6</sup> The recommendations were addressed to a large number of European authorities with competency for the supervision of central counterparties, clearing members and operators dealing in over-the-counter derivatives that are not settled centrally. The Italian authorities receiving these recommendations were the Bank of Italy, the Insurance Supervisory Authority (IVASS), the Italian Companies and Stock Exchange Commission (Consob) and the Pension Fund Supervisory Authority (COVIP).

Loans classified as Stage 2 under IFRS 9, for which financial intermediaries recognize a significant increase in credit risk, continued to rise, albeit at a much slower pace than in 2020. The ratio of these loans to total performing loans and the relative coverage ratio have remained stable. Loans with active moratoriums, whose coverage ratio rose considerably, are one of the main sources of the increase in the share of forborne, but still performing, exposures.

Given the persistent uncertainty concerning the outlook for the economy, the risk of a deterioration in credit quality is still substantial and requires heightened awareness on the part of banks when assessing loan repayment capacity and the consequent loan loss provisioning decisions.

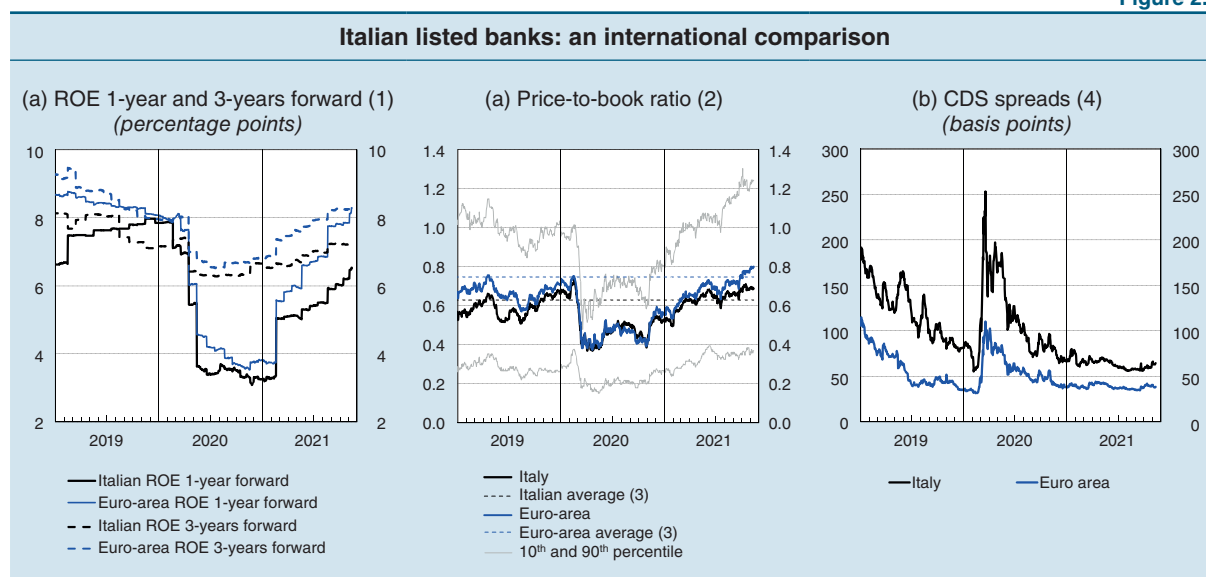
Profitability rose significantly in the first half of the year, mainly owing to the reduction in loan loss provisions and, to a lesser extent, the increase in asset management fees, higher trading revenues and lower operating costs. The temporary nature of some of these revenues, especially those from trading, suggests that total profitability for 2021 could be lower than it was in the first half of the year.

Capitalization fell slightly in the first six months of the year, but is not expected to be significantly affected by the increase in dividend payments linked to the expiration of the supervisory authorities' recommendations limiting their distribution during the pandemic.

With the digitalization of financial services and the increased outsourcing of activities to third parties, financial intermediaries' exposure to cyber threats and to business continuity risks rose; both must be countered by effectively integrating them into their risk management and control systems.

Over the last six months, analysts' expectations regarding Italian and euro-area banks' earnings continued to improve: in November the 3-year forward forecast of return on equity (ROE) is 7.2 per cent for Italian banks and 8.4 per cent for euro-area banks, in line with what was observed prior to the pandemic emergency (Figure 2.8.a). The rise in expected yields – along with higher than anticipated

Figure 2.8



Source: Based on Refinitiv data.

(1) The data refer to the banks listed on the FTSE Italy Banks and Euro STOXX Banks. Expected ROE is estimated by market operators. Average, weighted according to market value. – (2) Average, weighted according to market value. For the banks included in the sample, see note (1). – (3) Average price-to-book ratio in the period since 15 September 2008 (date of the bankruptcy of Lehman Brother) to 12 November 2021. – (4) The data refer to the following sample of banks: for Italy, UniCredit and Intesa Sanpaolo; for France, BNP Paribas, Société Générale and Crédit Agricole; for Germany, Deutsche Bank and Commerzbank; for Spain, Banco Santander and Banco Bilbao Vizcaya Argentaria. Simple average of 5-year CDS spreads.



profitability in the second quarter and the lifting of restrictions on the distribution of earnings – was reflected positively in share prices: between May and October the Italian and the euro-area banking sector indices rose, respectively, by 20 and 17 per cent.

Despite these improvements, the price-to-book ratio is still well below one (Figure 2.8.b). The insolvency risk premium, measured by the prices of credit default swaps (CDS), remains more or less stable for the two main Italian banking groups and the other large European financial intermediaries (Figure 2.8.c).

### Asset risk

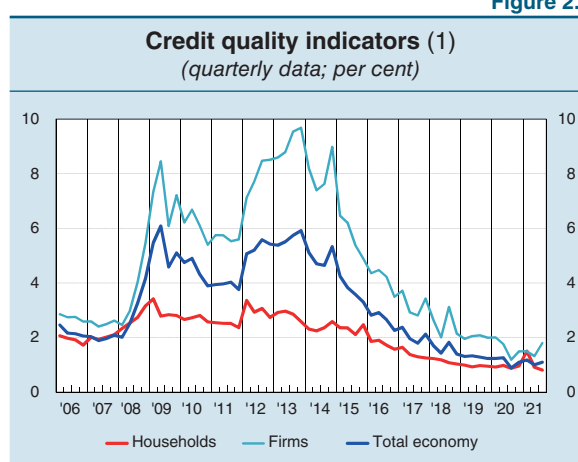
The economic effects of the pandemic have not translated into an increase in NPLs so far. The ratio of new NPLs to total performing loans remained small: in the third quarter of 2021 it had fallen to 1.1 per cent (Figure 2.9), benefiting from the policies in support of households and firms and the economic recovery. The stock of NPLs net of loan loss provisions equalled €48 billion (€100 billion gross of provisions) in June, €3 billion lower than at the end of 2020 (Table 2.1).

Sales of loans continues to be the primary reason for the reduction in NPLs. The growth of the secondary market was spurred by the introduction and gradual expansion of operations involving NPLs other than bad loans (in particular those classified as unlikely to pay; Figure 2.10). These operations, more complex since they relate to highly heterogeneous loans, were carried out by a small number of large financial intermediaries.

During the first half of the year, the ratio of net non-performing loans to total loans fell by 20 basis points, to 2 per cent (Figure 2.11.a). The gap between the Italian significant banks and all intermediaries subject to the direct supervision of the ECB remained stable, at 0.5 percentage points (Figure 2.11.b).

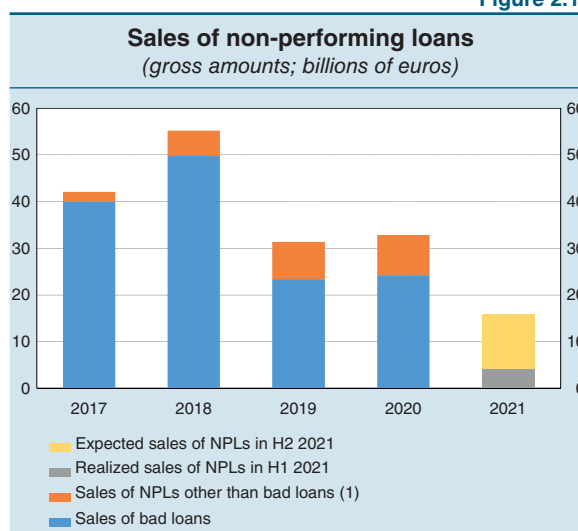
In June, the coverage ratio for NPLs was 52 per cent in June 2021, up 80 basis points compared with December of last year. The difference between the coverage ratios for the less significant banks and for the significant banks – while having decreased (by 1.7 percentage points) – remains high, at 13.7 percentage points. The gap is in large part explained by the inclusion among the less significant banks of intermediaries specializing in NPL management, which acquire these positions and enter them in their balance sheets net of write downs (see Table

Figure 2.9



Source: Central Credit Register.  
(1) Annualized quarterly flows of adjusted NPLs in relation to the stock of loans at the end of the previous quarter net of adjusted NPLs. Data seasonally adjusted where necessary.

Figure 2.10



Source: Annual survey on sales of non-performing loans.  
(1) Includes NPLs classified as unlikely to pay or past due.

Table 2.1

**Credit quality: amounts and shares of non-performing loans and coverage ratios**  
(billions of euros and per cent)

	Significant banks					Less significant banks					Total (1)				
	Gross exposures	Net exposures	Gross percentage share	Net percentage share	Coverage ratio (2)	Gross exposures	Net exposures	Gross percentage share	Net percentage share	Coverage ratio (2)	Gross exposures	Net exposures	Gross percentage share	Net percentage share	Coverage ratio (2)
June 2021 (3)															
<b>Loans (4)</b>	<b>1,982</b>	<b>1,932</b>	<b>100.0</b>	<b>100.0</b>	<b>2.6</b>	<b>223</b>	<b>217</b>	<b>100.0</b>	<b>100.0</b>	<b>2.8</b>	<b>2,475</b>	<b>2,410</b>	<b>100.0</b>	<b>100.0</b>	<b>2.6</b>
Performing	1,908	1,897	96.2	98.2	0.6	210	209	94.3	96.5	0.5	2,375	2,362	96.0	98.0	0.6
Non-performing	75	35	3.8	1.8	53.5	13	8	5.7	3.5	39.8	100	48	4.0	2.0	52.0
Bad loans (5)	31	10	1.5	0.5	67.0	7	4	3.1	1.7	46.2	45	17	1.8	0.7	63.0
Unlikely to pay (5)	41	22	2.1	1.2	45.3	5	3	2.3	1.5	35.3	51	28	2.0	1.2	44.4
Past-due (5)	3	2	0.2	0.1	28.4	1	1	0.4	0.3	13.5	4	3	0.2	0.1	26.8
December 2020 (6)															
<b>Loans (4)</b>	<b>1,872</b>	<b>1,820</b>	<b>100.0</b>	<b>100.0</b>	<b>2.8</b>	<b>203</b>	<b>197</b>	<b>100.0</b>	<b>100.0</b>	<b>3.0</b>	<b>2,337</b>	<b>2,271</b>	<b>100.0</b>	<b>100.0</b>	<b>2.8</b>
Performing	1,795	1,784	95.9	98.0	0.6	190	189	93.5	95.9	0.5	2,234	2,221	95.6	97.8	0.6
Non-performing	77	36	4.1	2.0	53.5	13	8	6.5	4.1	38.1	104	51	4.4	2.2	51.2
Bad loans (5)	33	11	1.7	0.6	66.4	7	4	3.5	2.1	42.9	47	18	2.0	0.8	61.7
Unlikely to pay (5)	42	23	2.3	1.3	45.0	6	4	2.7	1.8	34.2	53	30	2.3	1.3	43.4
Past-due (5)	2	2	0.1	0.1	28.3	1	1	0.2	0.2	12.2	3	3	0.2	0.1	27.5

Source: Supervisory reports, on a consolidated basis for banking groups and on an individual basis for the rest of the system.

(1) The total includes subsidiaries of foreign banks that are classified as neither significant nor Italian less significant banks, which account for about 12 per cent of total gross customer loans. Excludes branches of foreign banks. – (2) The coverage ratio is measured as the ratio of loan loss provisions to the corresponding gross exposure. – (3) Provisional data. – (4) Includes loans to customers, credit intermediaries and central banks. – (5) The non-performing loan sub-categories reflect the Bank of Italy's non-harmonized definition, which differs from the harmonized one used at European level. The definition adopted by the Bank of Italy allows for a distinction between exposures, in descending order of risk: bad loans, unlikely to pay, and non-performing past-due and/or overdrawn exposures. – (6) For the purposes of cross-time comparison, one medium-sized less significant intermediary, which became a branch of a foreign significant group in 2021 as a result of an acquisition, was treated as a foreign subsidiary of a significant group as of December 2020.



Table 2.2

<b>Loans to the non-financial private sector classified as Stage 2 under IFRS 9 (1)</b> (millions of euros and per cent)				
<b>Gross amount</b>				
	June 2020 (3)	December 2020 (3)	June 2021 (4)	Percentage changes June 2020-June 2021
Significant banks	167,282	191,575	190,332	13.8
Less significant banks	11,400	13,580	15,341	34.6
<b>Total banking system (2)</b>	<b>190,663</b>	<b>216,716</b>	<b>218,826</b>	<b>14.8</b>
<b>Ratio of Stage 2 loans to total performing loans</b>				
	June 2020 (3)	December 2020 (3)	June 2021 (4)	Change in percentage points June 2020-June 2021
Significant banks	14.3	16.4	15.9	1.6
Less significant banks	9.1	9.9	10.6	1.5
<b>Total banking system (2)</b>	<b>12.9</b>	<b>14.6</b>	<b>14.3</b>	<b>1.4</b>
<b>Coverage ratio</b>				
	June 2020 (3)	December 2020 (3)	June 2021 (4)	Change in percentage points June 2020-June 2021
Significant banks	3.7	3.7	3.6	-0.1
Less significant banks	3.5	3.5	3.4	-0.1
<b>Total banking system (2)</b>	<b>3.9</b>	<b>3.8</b>	<b>3.7</b>	<b>-0.2</b>

Source: Consolidated supervisory reports for banking groups and individual supervisory reports for the rest of the system.

(1) Based on IFRS 9, loans measured at fair value through comprehensive income and that measures at amortized cost are divided into three stages of risk. Stage 1 (S1) includes loans whose credit risk has not increased significantly since initial recognition; Stage 2 (S2) includes loans whose credit risk has increased significantly since initial recognition; Stage 3 (S3) includes impaired loans. – (2) The total includes subsidiaries of foreign banks that are classified as neither significant nor Italian less significant banks. – (3) For the purposes of cross-time comparison, one medium-sized less significant intermediary, which became a branch of a significant foreign group in 2021 as a result of an acquisition, was treated as a foreign subsidiary of a significant group as of December 2020. – (4) Provisional data.

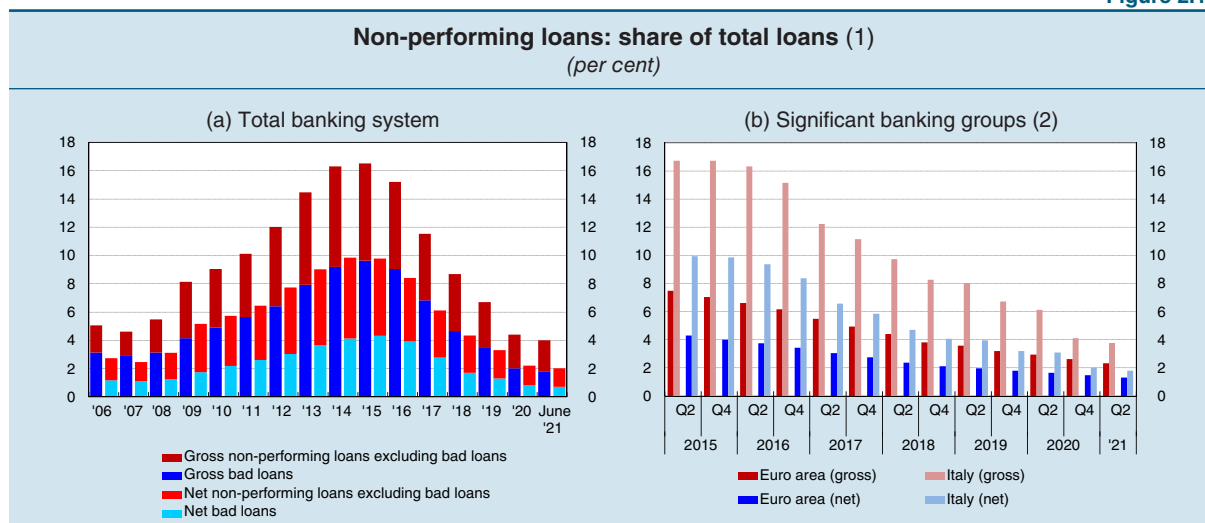
A2 in Selected Statistics). Excluding these intermediaries, the coverage ratio for less significant banks would be 49.3 per cent and, unlike for the significant banks, would fall by 4.2 percentage points.

In the first half of the year, the ratio of performing loans to the non-financial private sector classified as Stage 2 under IFRS 9 remained virtually unchanged, after rising considerably in 2020. The share instead rose slightly for the less significant banks, partly narrowing the gap with significant banks, which instead recorded a small reduction (Table 2.2). The coverage ratio has remained essentially stable over time and between banking groups.

For the Italian significant banks, the share of Stage 2 loans out of total performing loans was around 4 percentage points higher than the average for the euro-area significant banks. The greater share is in part connected to the higher ratio of moratoriums to total loans compared with the other euro-area countries (2.9 compared with 0.9 per cent), despite their substantial reduction (from €150 billion to €48 billion<sup>7</sup> in the first half of 2021; Table 2.3).

<sup>7</sup> This refers to debt moratoriums that comply with the requirements set by the European Banking Authority (EBA), which are given preferential treatment for reporting and prudential purposes, according to which the application of the definition of general payment moratorium does not necessarily entail a reclassification of the exposure, unlike what is envisaged for debt moratoriums implemented as individual initiatives taken by banks (see EBA, 'Guidelines on legislative and non-legislative moratoria on loan repayments applied in the light of the COVID-19 crisis', April 2020).

Figure 2.11



Source: Consolidated supervisory reports for Italian banking groups and individual supervisory reports for the rest of the system; ECB, Supervisory Banking Statistics for the euro area.

(1) Includes loans to customers, credit intermediaries and central banks. Includes banking groups and subsidiaries of foreign banks; excludes branches of foreign banks. Ratios are calculated net and gross of provisions. The data for June 2021 are provisional. – (2) The perimeter of significant banks and less significant banks differs between the dates in the figure: in the period since June 2019, when the reform of the cooperative banking sector was finalized, Cassa Centrale Banca became a significant banking group for supervisory purposes and 143 cooperative credit banks (BCCs) have joined the ICCREA group, which was already classified as significant before the reform.

Table 2.3

<b>Existing moratoriums on loans to the non-financial private sector (1)</b> (billions of euros and per cent)			
	June 2021 (2)		
	Significant banks	Less significant banks	Total (3)
Amounts	37.3	7.8	47.9
Share of total lending	2.9	5.1	2.9
Ratio of Stage 2 loans to total performing loans with an existing moratorium	48.4	30.5	43.9
Ratio of Stage 3 loans to total performing loans with an existing moratorium	3.1	2.9	3.0
Coverage ratio for Stage 1 loans	0.8	0.8	0.8
Coverage ratio for Stage 2 loans	4.9	4.3	4.9
Coverage ratio for Stage 3 loans	36.7	29.3	35.0
	December 2020 (4)		
Amounts	113.6	20.3	149.9
Ratio to total lending	8.9	14.0	9.2
Ratio of Stage 2 loans to total performing loans with an existing moratorium	33.9	21.7	30.3
Ratio of Stage 3 loans to total performing loans with an existing moratorium	1.5	1.6	1.5
Coverage ratio for Stage 1 loans	0.5	0.6	0.5
Coverage ratio for Stage 2 loans	4.4	4.1	4.5
Coverage ratio for Stage 3 loans	37.1	28.0	34.7

Source: Consolidated supervisory reports for banking groups and individual supervisory reports for the rest of the system.

(1) This refers to debt moratoriums that comply with the requirements set by the EBA Guidelines (see Footnote 7). – (2) Provisional data. – (3) The total includes subsidiaries of foreign banks that are classified as neither significant nor Italian less significant banks. – (4) For the purposes of cross-time comparison, one medium-sized less significant intermediary, which became a branch of a significant foreign group in 2021 as a result of an acquisition, was treated as a foreign subsidiary of a significant group as of December 2020.

The probabilities of default over a one-year time horizon reported by banks that use internal models indicate that, among the firms benefiting from credit support measures, those with at least one moratorium in place at the end of August are relatively more risky (see the box ‘The riskiness of firms benefiting from liquidity support measures’).

### THE RISKINESS OF FIRMS BENEFITING FROM LIQUIDITY SUPPORT MEASURES<sup>1</sup>

To meet the increased liquidity needs of Italian firms,<sup>2</sup> the Government introduced a series of support measures, including moratoriums on loans to small- and medium-sized enterprises (SMEs) and the possibility of accessing State-guaranteed loans.

Loans to non-financial corporations benefiting from government measures to support liquidity are itemized in the AnaCredit dataset;<sup>3</sup> these data make it possible to analyse trends in the riskiness of firms between March 2020 and August 2021, based on the probability of default (PD) reported by banks.<sup>4</sup>

As at August 2021, the share of credit to firms in default included in the sample fell from 13 to 9 per cent (see panel (a) of the figure). Among performing loans, the share of those with an average probability of default of less than 5 per cent rose by 5 percentage points compared with March 2020, reaching 79 per cent, partly thanks to the lower average riskiness of the new loans originated in the period.

Among the beneficiary firms of credit support measures, those with at least one moratorium active at the end of August 2021 were the riskiest. More specifically, the share of loans to firms with a probability of default greater than or equal to 5 per cent was 24 per cent for firms with outstanding moratoriums, against 16 and 11 per cent for firms with expired moratoriums and for those with only State-guaranteed loans, respectively. The share of lending to firms that had not benefited from any support measure and were considered to be in default at August 2021 was equal to 21 per cent. This share includes firms that were unable to access any support measure given that they were already in default in March 2020.

The share of loans to firms registering a deterioration in their probability of default was higher for those with at least one moratorium in place at August 2021 compared with those that had benefited from other credit support measures (see panel (b) of the figure).<sup>5</sup> For all sectors, there was a deterioration of more than 15 per cent.

<sup>1</sup> By Davide Moretti and Francesca Rinaldi.

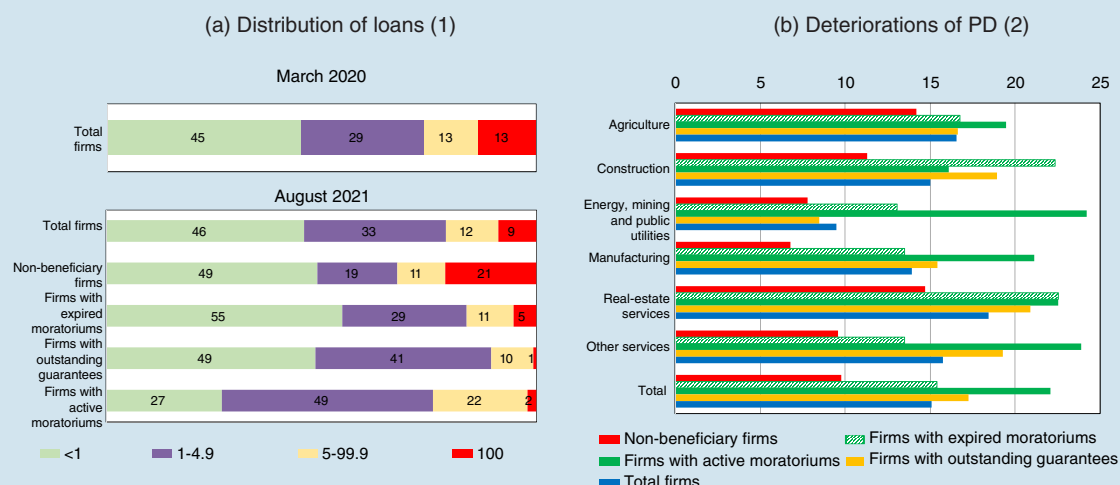
<sup>2</sup> A. De Socio, S. Narizzano, T. Orlando, F. Parlapiano, G. Rodano, E. Sette and G. Viggiano, ‘The effects of the COVID-19 shock on corporates’ liquidity needs, balance sheets and riskiness’, Banca d’Italia, *Note Covid-19*, 13 November 2020.

<sup>3</sup> The AnaCredit dataset contains individual reports by around 250 resident credit institutions and surveys all the credit relationships in which a bank’s exposure to an individual debtor is equal to or greater than €25,000. Since June 2020, it also contains information on loans backed by State guarantees disbursed to firms to mitigate the economic repercussions of the pandemic, as well as on moratoriums granted on outstanding exposures. It is not, however, possible to distinguish between the moratoriums that comply with the EBA guidelines and the others (see Banca d’Italia, ‘Loans backed by COVID-19 guarantees and that qualify for a moratorium. Inclusion of new information in the AnaCredit register’, Communication of 11 June 2020, [only in Italian](#)).

<sup>4</sup> It considers the PD over a time horizon of 1 year indicated by banks that use internal models to assess credit risks for prudential purposes. The data are available for around three quarters of the firms registered in AnaCredit, which together hold more than 90 per cent of total exposures. Four homogeneous categories were defined based on the quantiles of empirical distribution of the PD: below 1 per cent, between 1.1 and 5 per cent, between 5 and 100 per cent, equal to 100 per cent (i.e. in default).

<sup>5</sup> The share of firms instead recording an improvement came to 9 per cent.

### Riskiness of firms (per cent of loan amounts)



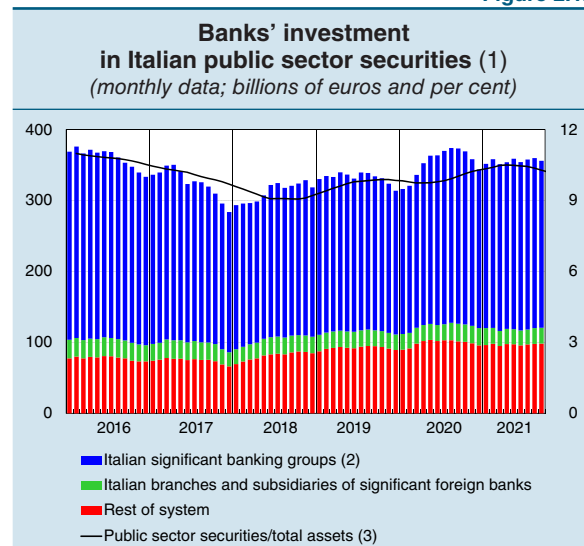
Source: AnaCredit.

(1) Outstanding nominal amount by type of firm and PD categories. Borrowers are classified as follows: firms with active moratoriums, firms with expired moratoriums, firms with outstanding State guarantees that have not benefited from any moratoriums, and firms that are not beneficiaries of any support measures. The analysis includes firms with a PD reported by banks that have internal credit risk assessment models. For firms borrowing from several banks with internal models, the simple average of the PD reported by the various banks was considered. A PD of 100 per cent was imputed to firms with non-performing loans and to firms with relationships with more than one bank that had performing loans vis-à-vis some banks and non-performing loans vis-à-vis at least one other intermediary. – (2) Closed sample at the bank-firm relationship level as recorded at March 2020 and at August 2021. Deteriorations, defined as transitions between PD categories, are as follows: from a PD of below 1 per cent to other categories; from a PD greater than or equal to 1 per cent and below 5 per cent to a PD greater than or equal to 5 per cent; from a PD greater than or equal to 5 per cent and below 100 per cent to a PD equal to 100 per cent.

During the first half of the year, there was an increase in both performing loans to the non-financial private sector classified as forborne (by 47 per cent, to €33.6 billion)<sup>8</sup> and in their ratio to total performing loans (from 1.5 to 2.2 per cent). At least 40 per cent of this is attributable to the reclassification of loans that were subject to or continue to be subject to a moratorium, for which the forbearance ratio is higher than that observed for all performing loans to the non-financial private sector.

<sup>8</sup> Article 47-ter of Regulation (EU) No 575/2013 (Capital Requirements Regulation or CRR) defines 'forbearance' as a measure of a concession (referring to the terms and conditions or total or partial refinancing of a debt obligation) by an institution towards an obligor that is experiencing or is likely to experience difficulties in meeting its financial commitments. A concession may entail for the lender a loss which, if it exceeds 1 per cent of the discounted value of the expected flow of payments, will require that the position be reclassified as an NPL.

Figure 2.12



Source: Supervisory reports.

(1) Comprises all public sector securities, including those issued by local authorities. Excludes Cassa Depositi e Prestiti SpA. – (2) Includes the cooperative credit banks merged into cooperative credit banking groups. – (3) Twelve-month moving average ending in the month indicated. The series 'total assets' does not include bond buybacks by the issuer. Right-hand scale.

Between March and September, the share of public sector securities in banks' total assets remained stable, at 10 per cent (Figure 2.12). The share of public sector securities allocated to the portfolio of assets valued at amortized cost (at 61.9 per cent for significant banks and 78.8 per cent for less significant banks) also remained unchanged; for these assets, changes in share prices are not reflected in regulatory capital.

### *Refinancing risk and liquidity risk*

Since February 2021, bank deposits by households and firms have continued to rise, albeit at a slower pace (see Section 1.2). The growth in deposits has further reduced the funding gap<sup>9</sup> by about 1.2 percentage points (to -11.8 per cent in September, 7 points lower than what it was in February of last year).

As of last June, European banks are required to have a net stable funding ratio (NSFR) of at least 100 per cent.<sup>10</sup> At the end of that month, the average indicator for Italian banks was 131 per cent; no bank was below the regulatory minimum. The available stable funding was comprised mainly of deposits by retail customers and loans from other financial intermediaries or central banks; the stable funding requirement was mostly met by loans.

The increase in deposits and the abundant resources made available by the Eurosystem (Table 2.4), enabled banks to limit their recourse to the wholesale bond market, unlike non-financial corporations

**Table 2.4**

<b>Main assets and liabilities of Italian banks (1)</b> (levels and percentage changes)					
	<b>Assets</b>		<b>Liabilities</b>		
	Stocks (percentage shares)	12-month percentage changes (2)		Stocks (percentage shares)	12-month percentage changes (2)
Loans to Italian residents	41.5	1.5	Deposits of residents in Italy	43.4	7.9
Debt securities (3)	13.9	-4.0	Deposits of non-residents	7.8	-0.7
Foreign assets	13.1	4.3	Bonds (8)	5.5	-6.0
Claims on the Eurosystem (4)	11.5	95.3	Liabilities vis-à-vis the Eurosystem (4)	12.7	22.1
Claims on central counterparties (5)	1.2	-37.6	Liabilities towards central counterparties (5)	2.0	-0.2
Equity shares and participating interests	1.9	7.6	Capital and reserves	9.1	4.1
Claims on resident MFIs (6)	9.1	11.2	Liabilities towards resident MFIs (9)	9.0	10.8
Other assets (7)	7.8	-6.8	Other liabilities (10)	10.5	-9.9

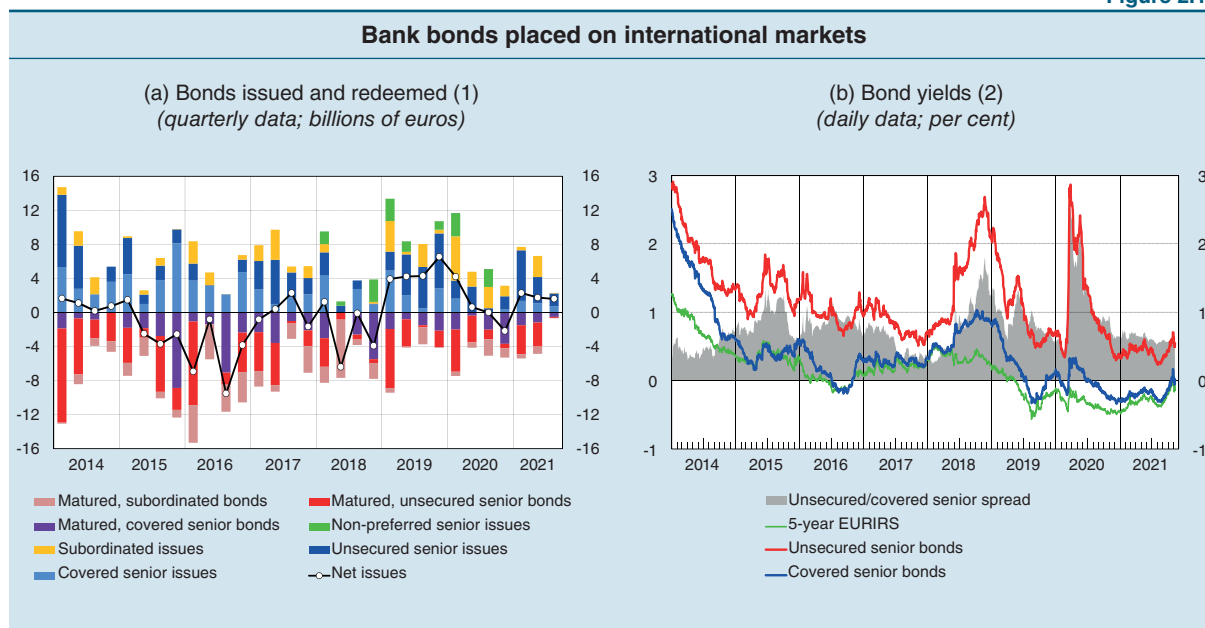
Source: Individual supervisory reports. Excludes Cassa Depositi e Prestiti SpA.

(1) Data as at September 2021. – (2) Adjusted for reclassifications, value adjustments and exchange rate variations for balance sheet items reported in currencies other than the euro. – (3) Includes debt securities of residents and government securities. Excludes bonds issued by resident monetary and financial institutions (MFIs), i.e. banks and money market funds. – (4) Includes the accounts with the Eurosystem for monetary policy operations; see Tables 3.3a and 3.3b in 'Banks and Money: National Data', Banca d'Italia, Statistics Series. – (5) Only repos. – (6) Includes bonds issued by resident MFIs and loans to resident MFIs. – (7) Includes: cash, money market fund units, derivatives, movable and immovable goods, and some minor items. – (8) Excludes bonds held by resident MFIs. – (9) Includes bonds held by resident MFIs and deposits of resident MFIs. – (10) Includes derivatives, deposits with a maturity above 2 years held by vehicle companies and some residual items.

<sup>9</sup> The funding gap is measured by the difference between the value of the loans and retail funding as a percentage of loans.

<sup>10</sup> The NSFR is the ratio between the available stable funding (calculated by multiplying the institution's liabilities and own funds by the factors that reflects their stability over a one-year horizon) and the stable funding requirement (calculated by multiplying the assets and off-balance-sheet items by the factors that reflect their liquidity characteristics and residual maturity over the same time horizon). This requirement is designed to ensure that banks have sufficient stable funding to meet their funding needs over a one-year horizon under both normal and stressed conditions, as set out in Regulation (EU) 2019/876 (Capital Requirements Regulation II or CRR II).

Figure 2.13



(see Section 1.2). In the second and third quarters of the year, net issues amounted to about €3 billion overall (Figure 2.13.a), with historically very low interest rates (Figure 2.13.b). By the end of 2022, some 23 per cent of the value of outstanding bank bonds will mature, totalling around €57 billion.

In June 2021, the weighted average of the ratio between holdings of instruments that can satisfy the minimum requirement for own funds and eligible liabilities (MREL) and the risk-weighted assets (RWA) of significant banks was 28.3 per cent compared with an average requirement of 24.2 per cent to be satisfied by the end of 2024;<sup>11</sup> a large portion of the significant banks is already MREL compliant.

Table 2.5

<b>Liquidity indicators of Italian banks (1)</b> (per cent)			
	LCR (2)	Net liquidity position at 1 month (3)	Net liquidity position at 3 months (3)
Significant banks	200.5	21.5	21.4
Less significant banks	338.0	26.5	26.6
<b>Total banking system</b>	<b>214.6</b>	<b>24.6</b>	<b>24.6</b>

Source: Consolidated supervisory reports for banking groups and individual supervisory reports for the rest of the system.

(1) Data as at July 2021. – (2) The liquidity coverage ratio is calculated as the ratio between total high-quality liquid assets and total net cash outflow over a 30-day horizon. (see Basel Committee, 'Basel III: The Liquidity Coverage Ratio and the liquidity risk monitoring tools', Bank for International Settlements, January 2013). – (3) The net liquidity position is equal to the ratio of the sum of highly liquid assets and net outflows to the total value of the assets. For significant and less significant banks, the figure is calculated as the simple average of the liquidity positions of the individual banks.

<sup>11</sup> The MREL also includes the combined buffer requirement (CBR).

During the period between the end of March and the end of September, the average liquidity coverage ratio (LCR) for the total banking system remained fairly stable and was much higher than the regulatory minimum of 100 per cent, benefiting from the enormous amount of liquidity injected into the banking system by the Eurosystem (Table 2.5).<sup>12</sup>

A rebalancing of high-quality liquid assets was observed: the share of government securities fell from 36 to 30 per cent, while liquidity held in the form of central bank reserves rose from 57 to 63 per cent. This development was furthered by the increase in net lending through repos that used government securities as collateral (see Section 2.1).

The liquidity reserves deposited with the Bank of Italy in excess of the minimum reserve requirements continued to rise and averaged €400 billion in the maintenance period that ended in November (€95 billion more than in March; Figure 2.14); this amount is much higher than the portion excluded from the payment of the negative interest rates (€112 billion).<sup>13</sup> The costs associated with the excess liquidity reserves held by Italian banks amounted to €280 million in 2020 and €1.1 billion between January and November of this year.

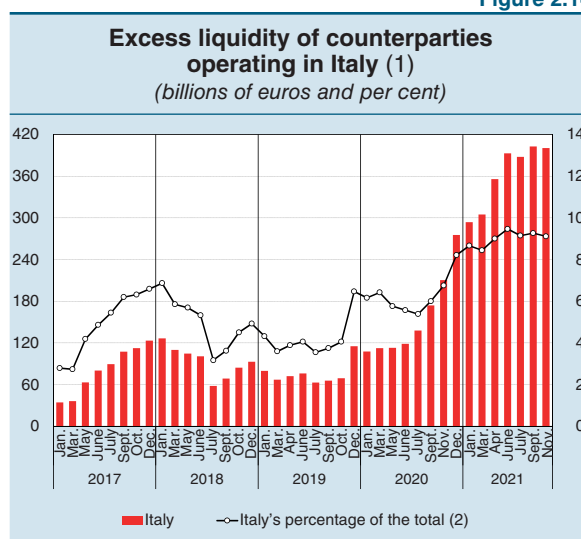
Between March and September recourse to Eurosystem refinancing by counterparties operating in Italy remained relatively unchanged at €449 billion. The favourable interest rates applied to targeted longer-term refinancing operations (TLTRO III) – in particular during the period between June 2020 and June 2022 and to those cases in which the loans are at least equal to the benchmark – make it possible to save compared to alternative funding sources, amply offsetting the cost associated with the excess liquidity reserves deposited with the Bank of Italy. According to our estimates, around €2 billion was saved in 2020 and more than €2.5 billion between January and September of this year.

In conjunction with stable recourse to refinancing, growth in the assets used as collateral for Eurosystem refinancing operations declined, after the rapid acceleration that began in March 2020 as a result of the extraordinary measures to ease the eligibility requirements and the risk control framework, adopted in response to the pandemic emergency. Between March and September of this year the collateral posted rose by 2 per cent, to €507 billion (Figure 2.15.a); its composition has remained stable (Figure 2.15.b). Overall, the asset encumbrance ratio rose to 30.6 per cent (from 28.0 per cent at the end of 2020).

<sup>12</sup> That the liquidity ratio for the less significant banks is higher than that for significant ones is attributable to the larger share of assets invested in government securities which, in turn, are recorded fully among high-quality liquid assets.

<sup>13</sup> Under the two-tier remuneration system introduced by the ECB in October 2019, a part of the excess reserve holdings, calculated as six times the minimum reserve requirement for each bank, is exempt from payment of the negative deposit facility rate (currently -0.50 per cent). For more information on how the two-tier system works, see ECB, 'ECB introduces two-tier system for remunerating excess liquidity holdings', press release, 12 September 2019.

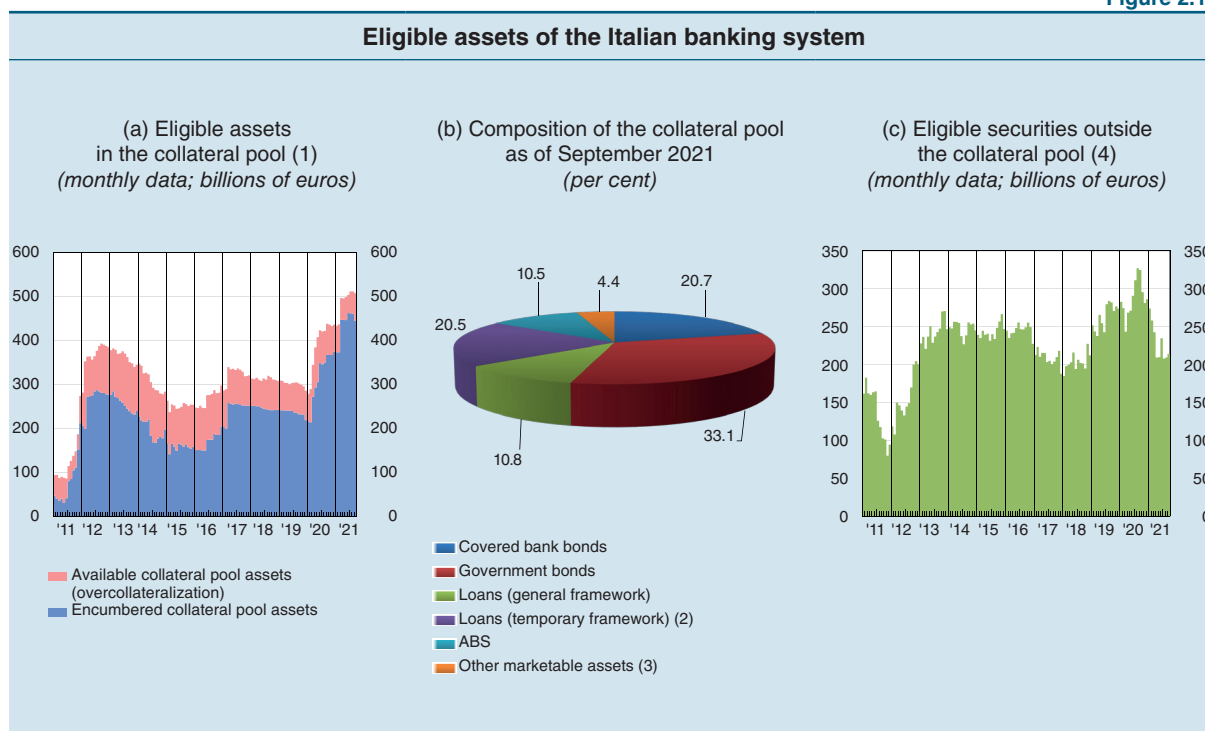
Figure 2.14



Sources: Based on Bank of Italy and ECB data.  
 (1) The months indicated on the x-axis are those in which each maintenance period ends. Excess liquidity is calculated as the sum of banks' average reserve balances, net of the reserve requirement, plus the average recourse to the deposit facility. – (2) Right-hand scale.



Figure 2.15



Sources: Based on Eurosystem data and supervisory reports.

(1) End-of-period data for the monetary policy counterparties of the Bank of Italy. The volume of encumbered Eurosystem collateral pool assets includes the part covering accrued interest and refinancing in dollars. The collateral pool is valued at the prices taken from the Common Eurosystem Pricing Hub, net of haircuts. – (2) Under the temporary framework, the eligibility criteria for assets that can be used as collateral are set by the individual national central banks pursuant to the rules provided by the ECB Governing Council (under the general framework, the criteria are set according to common rules that are applicable to the entire Eurosystem). – (3) Includes bank bonds, including those backed by the State guarantee scheme, and securities issued by non-financial corporations and international organizations. – (4) End-of-period data for the entire banking system, not including Cassa Depositi e Prestiti SpA and Poste Italiane SpA. Amounts at market values as reported by the banks, net of the haircuts applied by the Eurosystem.

The volume of assets eligible to be used as collateral for Eurosystem refinancing operations remains ample, despite a further reduction in the securities component of €30 billion compared with March 2021. In September, Italian banks had around €215 billion in securities eligible for use as collateral available outside the collateral pool (Figure 2.15.c), of which 85 per cent are government securities.

### Market risk and interest rate risk

Estimates indicate that the Value at Risk (VaR) for the entire securities portfolio returned to pre-pandemic levels as of the second quarter of 2021 (Figure 2.16). The decline is due to the volatility of credit spreads and, to a lesser extent, to interest rates. The contribution of exchange rate risk and equity risk is limited overall.

Figure 2.16

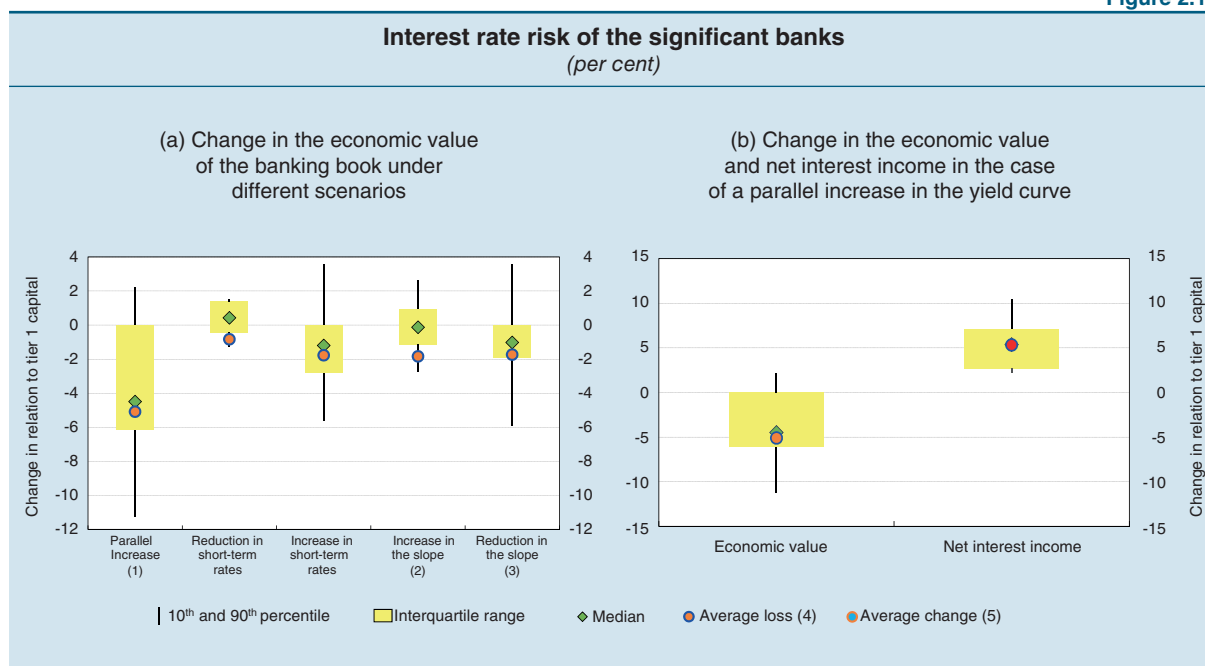


Sources: Based on data from supervisory reports, the securities registry database and Refinitiv.

(1) Averages, weighted according to the size of each bank's portfolio. VaR is the loss on a portfolio that within a day will not exceed a given tail level (99 per cent). The indicator relating to the banking system as a whole is calculated using granular data on the stock and the characteristics of the assets in the portfolio of each Italian bank at the end of every month, taking account of the changes in risk factors over the last 250 business days.



Figure 2.17



Source: Short Term Exercise data at 30 June 2021 relating to 11 significant banking groups.  
 (1) Increase of 200 basis points along the entire risk-free yield curve. – (2) A reduction in short-term rates and an increase in long-term rates. – (3) An increase in short-term rates and a reduction in long-term rates. – (4) Average of the changes in economic value, weighted by tier 1 capital, calculated by taking account of only those banks with negative changes under each scenario. – (5) Average of the changes in net interest income, weighted by tier 1 capital.

Simulations based on the banks’ capital positions and the government securities in the portfolio measured at fair value at the end of September 2021 demonstrate that an upward shift of 100 basis points in the entire sovereign yield curve would lower the common equity tier 1 ratio (CET1 ratio) on average, by 21 basis points (18 basis points for significant banks and 37 basis points for less significant banks).<sup>14</sup> The impact is greater than estimated in January of this year (18 basis points), mainly owing to the increase in the financial maturity of the securities held.

The exposure of Italian significant banks to interest rate risk remains moderate overall and below the thresholds set out in the EBA Guidelines.<sup>15</sup> Based on the data for June, the average weighted reduction in the value of the banking book<sup>16</sup> is between 0.8 and 5.1 per cent of tier 1 capital (Figure 2.17.a), applying the scenarios set out in the EBA Guidelines on the change in risk-free interest rates. The greater loss would arise in the currently very unlikely case of an upward shift of 200 basis points in the entire yield curve. The effect of this latter scenario on net interest income would, however, be positive for all the significant banks (Figure 2.17.b).

<sup>14</sup> On the one hand, the estimates do not take into consideration government securities held by foreign subsidiaries and by the insurance component of Italian banking groups (involving significant amounts in some cases); on the other, they do not take account of factors that could mitigate the impact, such as the existence of hedging operations. The tax effects are instead taken into account, which reduce the impact by about 6 basis points.

<sup>15</sup> The exposure to interest rate risk for prudential purposes is calculated by the banks and based on EBA guidelines (see EBA, ‘Guidelines on the management of interest rate risk arising from non-trading book activities’ July 2018).

<sup>16</sup> The average reduction is calculated by considering only the banks that would register a reduction in the value of the banking book.

## Capital and profitability

In June, the capital adequacy of Italian banks was slightly lower than at the end of 2020. The CET1 ratio for the entire system<sup>17</sup> averaged 15.2 per cent of the risk-weighted assets, down by around 20 basis points.

The decrease was seen for both significant and, more markedly, less significant banks (respectively 12 and 46 basis points, to 15.4 and 17.6 per cent).<sup>18</sup> The decline for significant banks was mainly attributable to the gradual suspension of the temporary measures associated with the entry into force of IFRS 9. For the less significant banks, the decrease in the CET1 ratio was almost entirely due to the non-recurring operations undertaken by two intermediaries.<sup>19</sup>

During the first half of the year, the gap between the average capital ratio of significant banks in the countries participating in the Single Supervisory Mechanism (SSM) and that of Italian significant banks increased slightly, to 20 basis points. The leverage ratio, which measures capital adequacy relative to non-risk-weighted assets, is still higher for Italian banks (6.4 per cent compared with 5.9 per cent).<sup>20</sup>

The lapsing of the recommendation limiting dividend distributions by banks could result in a further drop in capitalization levels in the case of extraordinary distributions.<sup>21</sup> Based on our discussions with intermediaries concerning their dividend distribution policies, we estimate that the drop in the CET1 ratio will be small. Capitalization levels are capable of withstanding the impact of adverse macroeconomic events (see the box ‘Stress tests for Italian less significant banks and other supervisory measures’).

### STRESS TESTS FOR ITALIAN LESS SIGNIFICANT BANKS AND OTHER SUPERVISORY MEASURES<sup>1</sup>

The Bank of Italy recently carried out a stress test exercise on Italian less significant banks (Less Significant Institutions, LSIs); the sample considered included 118 banks (92 of which follow a traditional business model), which account for 11 per cent of the banking system’s total assets.<sup>2</sup>

This exercise, which the Bank carries out as part of its ordinary supervisory activities, is designed to assess banks’ resilience to adverse macroeconomic events and, similarly to the one carried out at European level on larger banks, does not automatically lead to the adoption of supervisory

<sup>1</sup> By Gennaro Pezzullo and Teresa Colarossi.

<sup>2</sup> The exercise excluded banks undergoing a significant revision of their business model, in the process of changing their corporate structure, or under special administration, which account overall for 0.1 per cent of the system’s total assets.

<sup>17</sup> The banking system data also includes the subsidiaries of non-Italian Single Supervisory Mechanism (SSM) groups – which represent about 11 per cent of total assets – for which the CET1 ratio was equal to 12 per cent.

<sup>18</sup> For the purposes of cross-time comparison, one medium-sized less significant intermediary, which became a branch of a foreign SSM group in 2021 as a result of an acquisition, was treated as a subsidiary of an SSM group as of December 2020.

<sup>19</sup> More specifically, it refers to a merger operation and to one intermediary’s decision to distribute dividends out of its retained earnings.

<sup>20</sup> The leverage ratio requirement was set at 3 per cent as of June 2021.

<sup>21</sup> Last July, the ECB and the Bank of Italy announced that, upon the expiration of the dividend recommendation (i.e. as of October), they will once again assess the adequacy of capital buffers and the dividend distribution and share buy-back plans of each bank as part of the Supervisory Review and Evaluation Process (SREP).

measures. The results are used as part of the Supervisory Review and Evaluation Process (SREP) for various purposes: (a) verifying capital adequacy and quantifying the non-binding capital requirements (Pillar 2 Guidance, P2G); (b) helping to assess the need to activate early intervention measures; and (c) assessing the prudence of dividend distribution policies. The methodology uses the supervisory reporting databases available to the Bank without directly involving the banks (top-down exercise) and refers to the same baseline and adverse macroeconomic scenarios adopted in the stress test for the larger European banks coordinated by the EBA and the ECB.<sup>3</sup>

The aggregated results show that the banks in the sample have on average an adequate capacity for resilience, including in the adverse scenario. At the end of the two years considered in the exercise, the fully loaded CET1 ratio would go down by 3.7 percentage points on average, to 13.7 per cent; the biggest impacts stem from credit risk. Overall, the results are in line with those achieved by Italian significant banks in the stress test carried out jointly by the EBA and the ECB: for banks with traditional business models alone and with reference to a three-year horizon, the CET1 ratio would fall by 6.3 per cent (by 5.6 per cent for the Italian banks involved in the European stress test). Banks that in an adverse scenario would have less than the minimum capital requirements of the first and of the second pillars or that would not comply with the minimum capital necessary to maintain a banking licence have long been monitored by the Bank of Italy.<sup>4</sup>

The results of the stress test are just one among the supervisory instruments used to assess the overall risk profiles of banks; there has long been a significant focus on the adequacy of corporate structures as well. Experience shows that the presence of solid corporate governance structures, an adequate composition of management and control bodies and highly skilled business managers are key factors for ensuring balanced and sustainable development for banks. As well as reviewing the relevant regulations,<sup>5</sup> the Bank of Italy recently launched a specific survey on LSIs, using a wide range of instruments (interviewing representatives, analysing the minutes of meetings and studying the qualitative composition of boards of directors and the relationships between certain corporate governance characteristics and firms' performance).<sup>6</sup> In this case, too, the results of the survey will be incorporated into the ordinary supervision of individual banks and may give rise to specific supervisory actions. At the end of the work, the best governance practices will be identified, which could serve as the basis for future recommendations for the banking system as a whole.

<sup>3</sup> For more information, see the EBA website: 'EU-wide stress testing' and, specifically, '2021 EU-wide stress test. Methodological note' and 'Macro-financial scenario for the 2021 EU-wide banking sector stress test'.

<sup>4</sup> There are 12 banks with capital below the minimum requirements of the first and second pillars; there are four that would not comply with the minimum capital necessary to maintain a banking licence at the end of the exercise. The total shortfall in common equity tier 1 capital (CET1) for these banks would be equal to 1.2 per cent of the CET1 of all LSIs.

<sup>5</sup> For further information, see the 36th update of the Bank of Italy Circular No. 285/2013 ('Supervisory Instructions for Banks').

<sup>6</sup> The survey covers all LSIs; the phase that includes analysis of the meeting minutes and the interviews is limited to a representative sample (equal to more than 50 per cent of the system of LSIs in terms of total assets).

In the first half of 2021, the profitability of Italian banks rose considerably compared with the year-earlier period. Net of extraordinary components, ROE increased from 2.9 to 8.9 per cent (Figure 2.18).

The decrease in loan loss provisions – which were very high in 2020 mainly because of the reclassification of a significant portion of the performing loans as Stage 2 under IFRS 9 – contributed heavily to the

improvement in profitability, causing ROE to increase by 3.7 percentage points. This decrease related to the same intermediaries that had taken the largest loan write downs in the first half of last year.

Gross income rose by 7.9 per cent. Net fees rose by 13.5 per cent compared with the first half of 2020, when the overall intermediated volumes were negatively affected by the measures taken to contain the pandemic, and were more than 8 per cent higher than for the corresponding period of 2019. The contribution of other income also rose, by 18.2 per cent, especially in revenue from trading and the sale of financial assets measured at fair value; the increase mainly occurred in the first quarter of the year.

Net interest income contributed negatively to the change in ROE, reducing it by 2.5 per cent, although it partly recovered in the second quarter; the expansion in the volume of lending was more than offset by the decline in interest rates on loans and securities. The cost of funding fell due to the positive contribution of the TLTRO operations and the reduction in interest owed on amounts deposited in bank accounts and on outstanding debt securities.

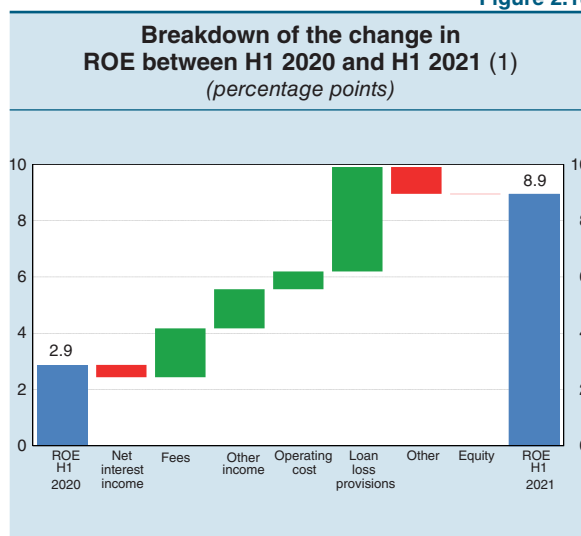
The decline in operating costs (2.5 per cent) also helped to improve ROE, thanks to the absence of non-recurring costs in connection with the early termination of employment contracts recognized last year by some of the largest intermediaries.

The exceptional nature of some of these developments leads to the conclusion that total profitability for 2021 could be lower than it was in the first half of the year; analysts' projections of Italian listed banks' ROE is currently 5.9 per cent (7.2 per cent for the main European listed banks).

In addition to the traditional risks posed to financial intermediaries' balance sheets, over the last few years regulators and supervisors have increasingly focused on the risks arising from cyber threats and the outsourcing of services (see the boxes 'Combating cyber risks to supervised intermediaries: data for Italy' and 'The outsourcing of services in the Italian financial system'). The spread of new technologies within the financial system, hastened by the pandemic, has led to the emergence of opportunities for innovation, of benefits in terms of efficiency and the ability to compete in the market, but also of risks linked to cyber fraud and attacks. At the same time, the significant number of financial institutions that rely on third parties for services increases the chance that service interruptions by one or more suppliers could compromise the institutions' business continuity and the stability of the financial system. Intermediaries' awareness of the new risks and their integration in their governance and control systems are key to mitigating the potentially negative effects on operations and on continuity, as well as the integrity of the services offered to customers and the impact on confidence and financial stability.<sup>22</sup>

<sup>22</sup> ESRB, 'Systemic cyber risk', February 2020, and FSB, 'Third-party dependencies in cloud services: considerations on financial stability implications', 9 December 2019.

Figure 2.18



Source: Consolidated supervisory reports for banking groups and individual supervisory reports for stand-alone banks.  
 (1) Changes are expressed as a ratio to own funds and reserves. A green/red bar indicates a positive/negative contribution to the initial ROE at the start of 2020, giving the final ROE value for 2021.

## COMBATING CYBER RISKS TO SUPERVISED INTERMEDIARIES: DATA FOR ITALY<sup>1</sup>

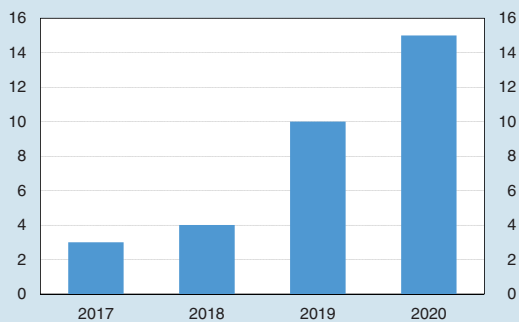
The growing digitalization of financial services, the introduction of new business models based on technological innovation, the spread of remote working, together with the rise in cyber crime and the constant refinement of the techniques used in attacks, are increasing intermediaries' exposure to cyber risk.<sup>2</sup>

Surveys conducted at European level confirm the notable rise in cyber attacks in recent years.<sup>3</sup> With reference to Italy,<sup>4</sup> last year 15 serious incidents linked to cyber attacks were reported, up by 50 per cent compared with the previous year (Figure A). These figures are in line with those of the ECB referring to all SSM significant institutions, in respect of which, cyber attacks rose by 54 per cent in 2020 compared with 2019.<sup>5</sup>

In both 2020 and in previous years, malicious incident reports were confined to (mostly large) banks. These were primarily denial-of-service (DoS)<sup>6</sup> attacks on customer services and episodes of unauthorized access to intermediaries' systems (Figure B). The incidents generally had modest repercussions (at most a few hours of service interruption, unauthorized access without any data breach or with limited data breaches). In a context of growing cyber risk, the banking system is better equipped than other sectors to counter these threats, given that for many years now it has been subject to the regulation and supervision of technological risks.

Figure A

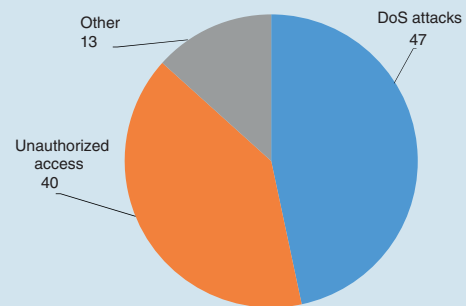
Cyber incident reports  
(number)



Source: Based on Bank of Italy data.

Figure B

Cyber incidents reported in 2020 by type  
(per cent)



Source: Based on Bank of Italy data.

<sup>1</sup> By Benedetto Andrea De Vendictis.

<sup>2</sup> In this box, the term cyber refers to the risks deriving from malicious attacks on the IT resources of financial intermediaries.

<sup>3</sup> See the European Union Agency for Cybersecurity (ENISA), 'ENISA threat landscape 2020: cyber attacks becoming more sophisticated, targeted, widespread and undetected', 20 October 2020, and the ECB, 'IT and cyber risk: a constant challenge', 18 August 2021.

<sup>4</sup> The data for Italian banks are collected by the Bank of Italy through the reporting of major IT incidents provided for in the supervisory provisions (see the Bank's website, 'Surveys of specific supervisory issues'; [only in Italian](#)).

<sup>5</sup> ECB, 'IT and cyber risk: a constant challenge', 18 August 2021.

<sup>6</sup> In the field of IT security, a DoS indicates a malfunction caused by an attack in which the resources of an IT system that provides a service to customers, such as a website, are deliberately overloaded with superfluous requests.

The Bank of Italy contributes at international level to the definition of common security standards for financial intermediaries; at national level, it works with the Ministry of Economy and Finance and with the other authorities to combat cyber crimes in the areas for which it is competent. It supports cooperation in the public and private spheres to reinforce actions to combat cyber crime.<sup>7</sup>

As for other prudential risks, the monitoring of IT risks envisages specific regulatory measures<sup>8</sup> based on the best international standards, along with both off-site<sup>9</sup> and on-site monitoring activities. In recent years, these activities have also involved several technology service providers that play a vital role in Italy's banking system, given the very large number of intermediaries they work with and the range of services provided.

The broad range of cyber threats requires coordinated action by the national and international authorities. In Europe, the European Commission has prepared a package of measures for the financial sector in the Digital Operational Resilience Act (DORA), which is currently in the consultation phase. DORA will apply harmonized legislative requirements to sector operators for managing cyber risks, the notification of major incidents, outsourcing arrangements for IT services, and test activities. Within the G20, the actions of the Financial Stability Board (FSB) aim to achieve international convergence on reporting schemes for cyber incidents.<sup>10</sup>

<sup>7</sup> In particular, it is worth mentioning the activities of the Italian financial sector's Computer Emergency Response Team (CERTFin).

<sup>8</sup> For more details, see the Bank of Italy Circular No. 285/2013 ([only in Italian](#)) regarding banks and the supervisory provisions for payment institutions and electronic money institutions ([only in Italian](#)).

<sup>9</sup> The assessment of IT security risks, including cyber risks, is made by the Bank of Italy based on the documentation produced regularly by the intermediaries (strategic plans, reports on operational and security risks of payment services, periodic surveys, self-assessments). Specific analyses are conducted during the authorization phase for the exercise of intermediaries' activities and for significant developments (such as the outsourcing of IT systems).

<sup>10</sup> FSB, 'Cyber incident reporting: existing approaches and next steps for broader convergence', 19 October 2021.

## THE OUTSOURCING OF SERVICES IN THE ITALIAN FINANCIAL SYSTEM<sup>1</sup>

The outsourcing of functions, particularly in information technology (IT), and more generally the reliance on third parties have long been under the scrutiny of international bodies for the potential financial stability implications.<sup>2</sup>

<sup>1</sup> By Caterina Giustozzi and Diego Ruggeri.

<sup>2</sup> In particular, within the framework of the Financial Stability Board (FSB) and the Basel Committee, the phenomenon of service provider concentration is being considered, given the possible systemic implications (see FSB, *Third-party dependencies in cloud services: considerations on financial stability implications*, 9 December 2019; FSB, *Regulatory and supervisory issues relating to outsourcing and third-party relationships*, Discussion paper, 9 November 2020 and the connected [public responses](#) of 22 January 2021; Basel Committee, *Consultative document. Principles for operational resilience*, August 2020; Basel Committee, *Principles for operational resilience*, March 2021). At European level, the European Banking Authority (EBA) released new 'Guidelines on outsourcing arrangements' in 2019. Moreover, specific provisions regarding the measures to be adopted to manage the risks deriving from recourse to third parties for the provision of IT services, including under outsourcing arrangements, are included in the Digital Operational Resilience Act (DORA) package, on which the European Commission launched a consultation. Moreover, in May 2021, the European Securities and Markets Authority (ESMA) published its 'Guidelines on outsourcing to cloud service providers'.



In the second half of 2020, the Bank of Italy conducted a survey to improve knowledge of the provider industry, to evaluate the safeguards adopted by the financial intermediaries using outsourcing, and to verify the possible presence of concentration phenomena in the provision of services. The survey, which covered the entire Italian banking and financial system, involved 866 financial intermediaries<sup>3</sup> and recorded 2,524 service providers and 1,018 sub-outsourcers.

Outsourced activities were classified into nine main categories,<sup>4</sup> each comprising sub-categories to specify the type of service provided. The most frequently outsourced functions (in terms of the number of contracts) relate to the following services and activities:

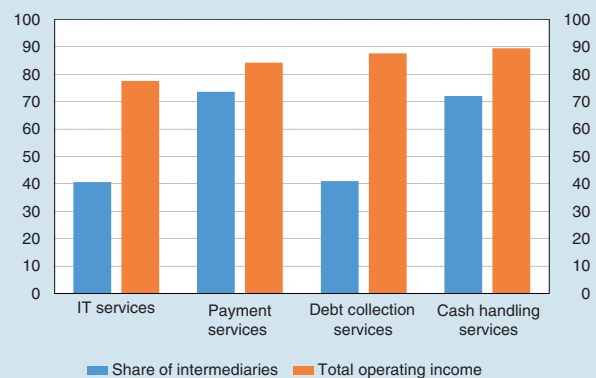
- Administrative and supervisory services (more than 18 per cent of outsourced activities): within this category, in 60 per cent of cases, outsourcing focuses on archiving, back office and supervisory reporting activities, including the Central Credit Register;
- Information systems (17 per cent), which in 17 per cent of cases are provided in full;
- Credit-related activities (13 per cent), of which the most frequently outsourced is debt collection (29 per cent);
- ‘Other’ (17 per cent), a residual category in which cash handling services (18 per cent) and information management for anti-money laundering profiles (21 per cent) play a key role.

In order to assess the degree of concentration in the provision of services, rankings of providers and sub-outsourcers were extracted on the basis of both the number of counterparties served and the sum of the latter’s operating income (to take account of their importance). Significant providers were identified above all in IT, payment, debt collection and cash handling services (see the figure). The analysis highlighted the following:

- a) In IT services, based on the criterion of the number of counterparties, it was possible to identify providers offering their services to cooperative banking groups and to the bank consortia originating from them, as well as to ‘third-party’ intermediaries other than banks. The ranking based on the operating income criterion led to the emergence, among others, of independent providers offering their services to a small number of counterparties, which are nevertheless of large size. The three

**Figure**

**Share and total operating income of the financial intermediaries using the services of the three main providers (1)**  
(per cent)



Source: Based on Bank of Italy data.  
(1) For the definition of ‘three main providers’, see Footnote 5.

<sup>3</sup> Specifically, 396 banks and banking groups (including significant ones), 60 securities investment firms (SIMs), 168 fund managers, 202 other financial intermediaries, and 40 payment institutions (PIs) and electronic money institutions (EMIs).

<sup>4</sup> Credit and securitizations, payment services, collective asset management, investment services and activities, corporate control functions, information systems, administrative and supervisory services, customer relations, other activities (e.g. treasury, privacy, cash handling and human resources).

main providers by number of counterparties serve 40 per cent of total intermediaries; the three major providers in terms of operating income account for 77 per cent of the total figure.<sup>5</sup>

- b) As regards payment services and platforms, the major providers include entities representing banking consortia as well as independently owned entities. The three main providers by number of counterparties meet the needs of 73 per cent of total intermediaries; the three main providers by operating income account for 84 per cent of the total.
- c) In the field of debt collection, the main providers include independent entities operating on behalf of banks and other financial intermediaries. The three main providers by number of counterparties serve 41 per cent of total intermediaries; the three main providers by operating income account for 87 per cent of the total.
- d) Cash handling is ascribable to a small number of groups. The three main providers by number of counterparties serve 72 per cent of total intermediaries; the three main providers by operating income account for 89 per cent of the total.

In order to maintain an up-to-date picture of the existing contracts and relations between providers and the banking and financial system, a project is underway to develop a system of periodic reporting on service providers by intermediaries. The Bank of Italy is engaged in strengthening supervisory methodologies and tools relating to outsourcing; this includes the development of criteria to identify situations in which a concentration of providers could have an impact on the financial system, as well as the identification of possible measures to be adopted to mitigate concentration risks. In any case, the intermediaries that are outsourcing corporate functions are called upon to retain responsibility for the outsourced activities and the ability to oversee them; furthermore, they must maintain the essential technical and managerial know-how to ensure, where necessary, that previously outsourced activities and services can be brought back in-house.

<sup>5</sup> The 'three main providers' are defined as those which, overall, offer services to the highest number of intermediaries or those accounting for the highest share of operating income.

## 2.3 INSURANCE COMPANIES AND THE ASSET MANAGEMENT INDUSTRY

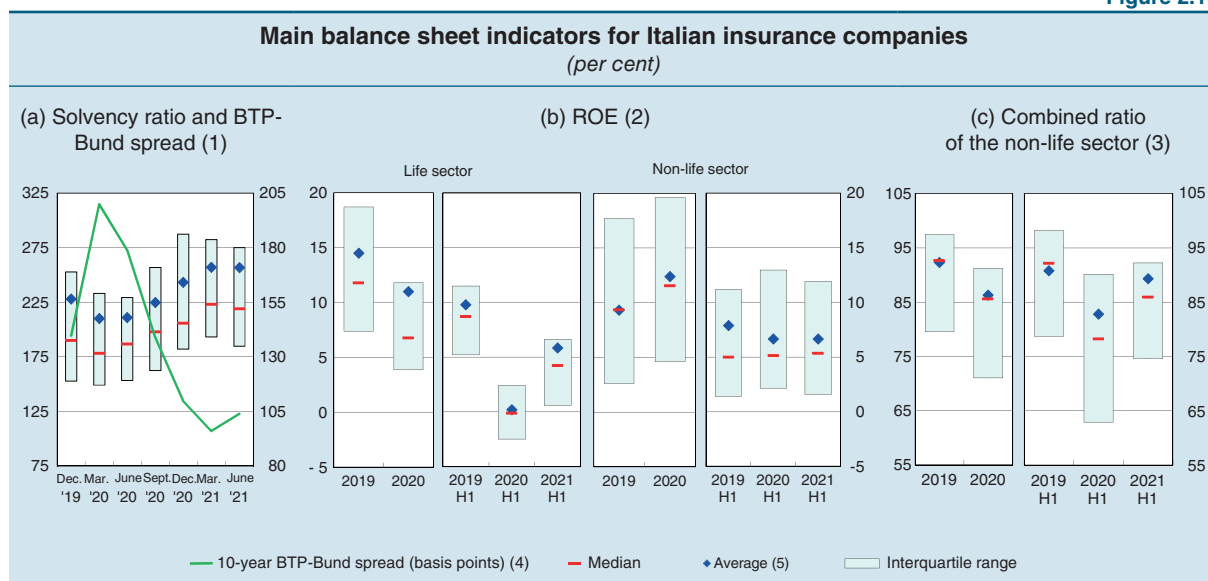
### *Insurance companies*

The Italian insurance sector has returned to pre-pandemic conditions in terms of capitalization, profitability and premium income. In June 2021, the average solvency ratio<sup>23</sup> of insurance companies rose to 257 per cent (it stood at 243 per cent in December 2020 and at 235 per cent at the end of 2019). Compared with December, the increase is mainly due to the recovery of portfolio securities prices and, to a lesser extent, to the rise in the risk-free interest rate curve used to calculate the technical provisions (Figure 2.19.a).

In the first half of the year, the average ROE for the insurance industry rose to 6.1 per cent from 2.6 per cent in June 2020. The recovery of asset values in the life sector was positive for profitability as well, with the ROE growing to 5.8 per cent, from zero per cent in June of the previous year (Figure 2.19.b). The profitability of the non-life sector remained stable at 6.7 per cent. The combined ratio returned to June 2019 levels (Figure 2.19.c) as a result of the increase in claims due to the resumption of road traffic (see *Financial Stability Report*, 1, 2021).

<sup>23</sup> For the definition of the solvency ratio, see note (1) to Figure 2.19. The regulations require a ratio of 100 per cent or more.

Figure 2.19



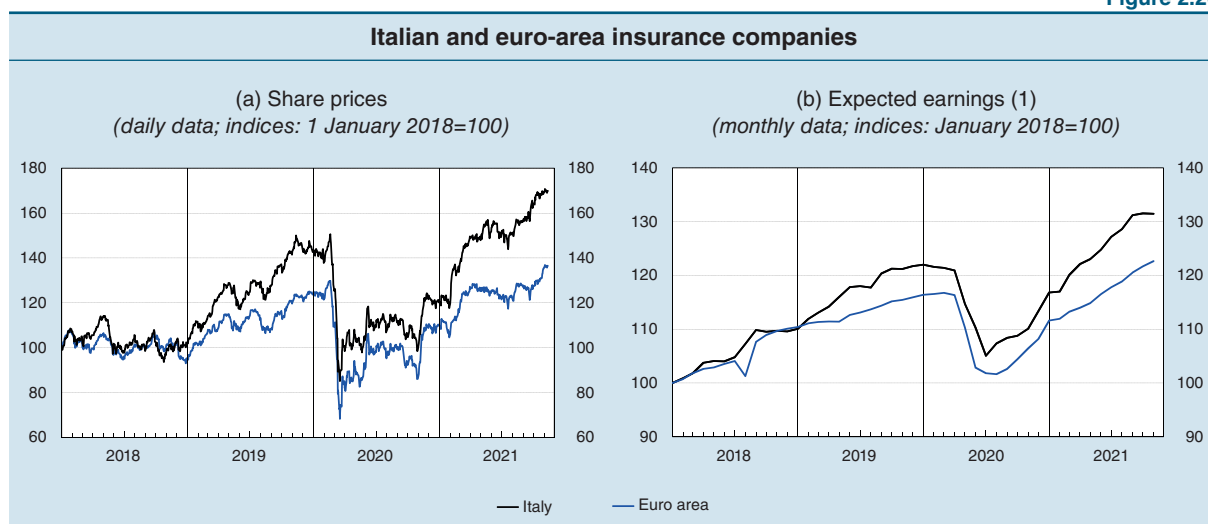
Sources: IVASS and calculations based on Refinitiv data.

(1) The solvency ratio is calculated as the ratio of own funds held for coverage to the solvency capital requirement established under Solvency II. The data are taken from the quarterly Solvency II supervisory reports based on the quantitative reporting templates. – (2) Ratio of earnings to shareholders' equity. The half-yearly ROE data are not annualized and are based on a representative sample that includes the leading Italian insurance companies. – (3) Ratio of surrenders plus operating expenses to premium income. – (4) The BTP-Bund spread refers to the end of each period. Right-hand scale. – (5) Weighted average with weights equal to the denominator of each ratio.

Share prices and analysts' expected profits for Italian insurance companies show that the industry has more than overcome the difficulties caused by the pandemic (Figure 2.20).

In line with the European average, Italian insurance companies are more exposed to market risk – equal to 65 per cent of the basic capital requirement – than to the technical risks associated with insurance

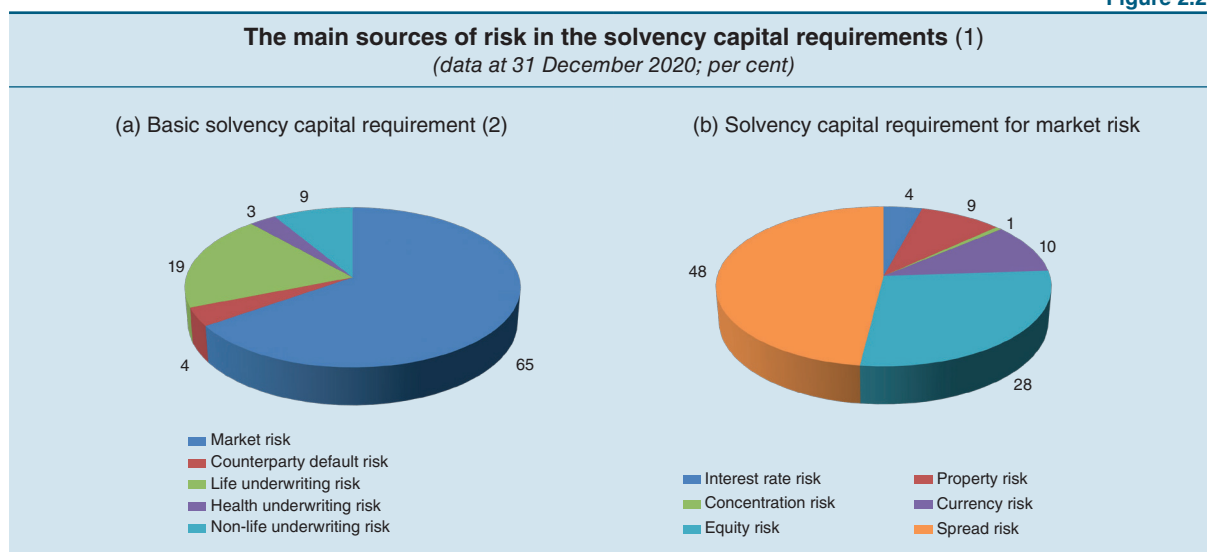
Figure 2.20



Source: Calculations based on Refinitiv data.

(1) Average of expected earnings per share in the 12 months following the reference date of a sample of the leading Italian and euro-area insurance companies (weighted by the number of outstanding shares). For Italy, the data refer to Assicurazioni Generali, Mediolanum Assicurazioni, Poste Italiane, Società Cattolica Assicurazioni and UnipolSai. For the euro area, the data refer to the leading companies included in the Datastream euro-area insurance sector index.

Figure 2.21



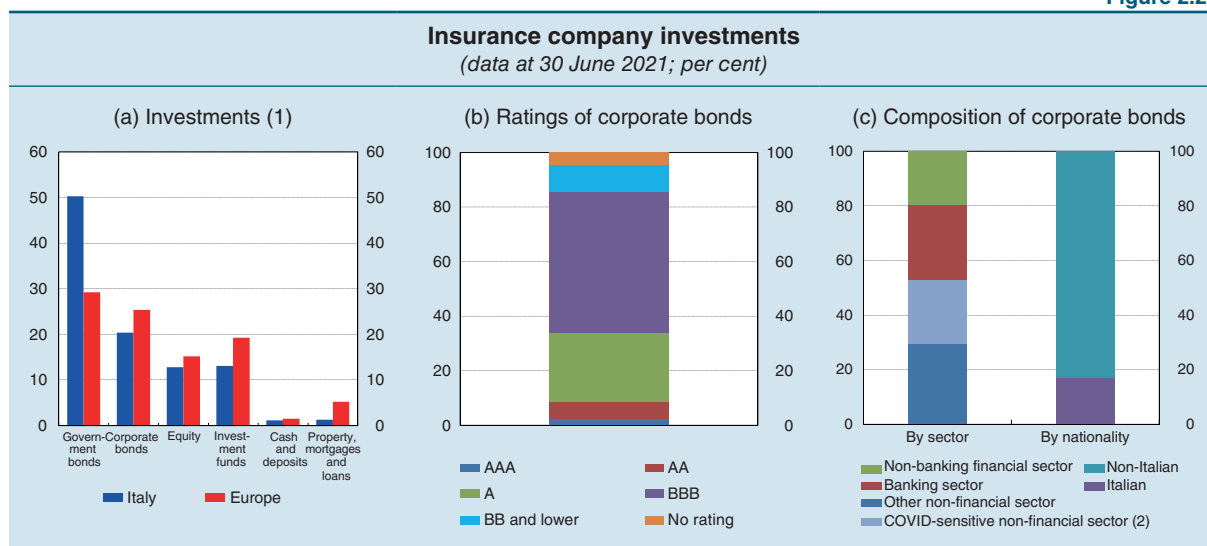
Source: IVASS.

(1) The data only refer to those companies that calculate their solvency capital requirement (SCR) using the standard formula (81 entities representing 59 per cent of total assets). The standard method used for calculating the spread risk does not set capital requirements for exposures to an EU state that are denominated and funded in the national currency. – (2) The basic solvency capital requirement (BSCR) is calculated by aggregating the market risk, counterparty default risk and underwriting risks (life, non-life and health) modules. The final SCR is determined by adding an operational risk module to the BSCR and taking account of the loss-absorbing capacity of technical provisions and deferred taxes.

activity (Figure 2.21.a). As regards market risks, Italian insurance companies are still mainly subject to bond spread variations (Figure 2.21.b).

In June 2021, the investments with market risks borne by Italian insurers were basically stable compared with the end of 2020 (€838 billion). The proportion of government securities, while lower by 2 percentage points, nevertheless remains high and well above the European average (50 and 29 per cent, respectively; Figure 2.22.a).

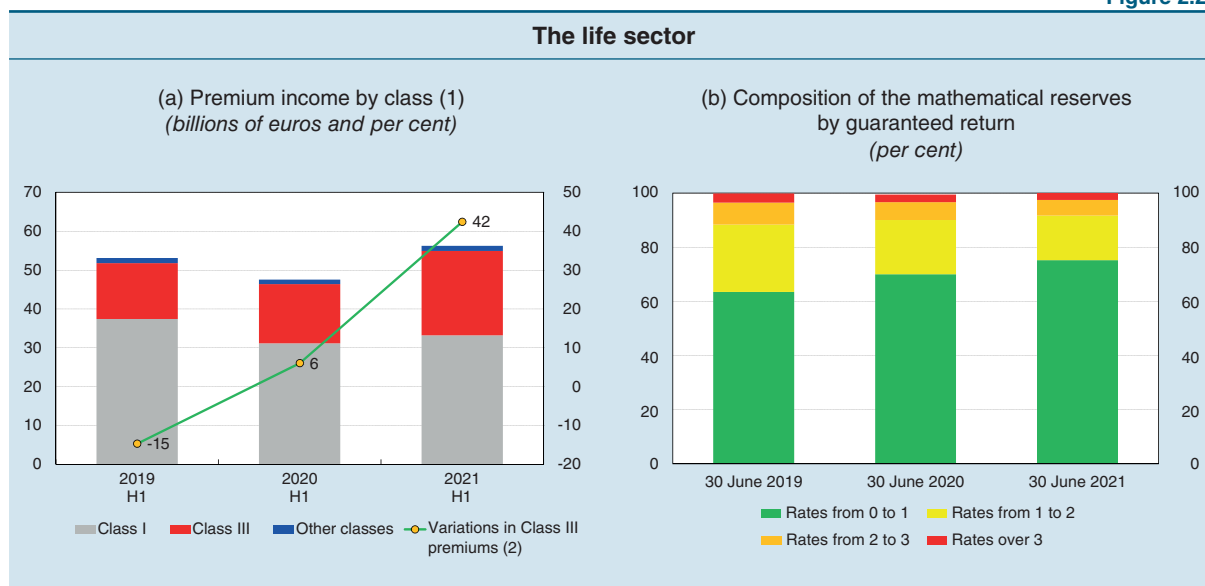
Figure 2.22



Sources: IVASS and EIOPA.

(1) The data for Europe, as at 31 March 2021, refer to the European Economic Area. – (2) These are non-financial COVID-sensitive bonds in the sectors hardest hit by the pandemic.

Figure 2.23



Source: IVASS.

(1) Class I mainly includes policies that can be revalued (traditional life insurance policies with a guaranteed return); Class III is mainly composed of unit- and index-linked policies (life insurance policies where policyholders bear the risk); and the Other Classes sector includes different kinds of life insurance policies. – (2) Per cent. Right-hand scale.

Investment in corporate bonds, equal to 20 per cent of the portfolio, continues to be mainly made up of securities issued by foreign non-financial corporations (Figure 2.22.c); 52 per cent are BBB-rated and 26 per cent are A-rated (Figure 2.22.b).

In the first half of 2021, the premium income of insurance companies returned to pre-pandemic levels, up by 14 per cent on the same period in 2020.

Given the persistently low interest rate environment, the gradual reduction of guaranteed returns offered by life insurance companies continued (see *Financial Stability Report*, 1, 2021); for the same reason the share of mathematical provisions relating to life insurance policies with a limited guaranteed return (of 1 per cent or lower) reached 75 per cent (Figure 2.23.b).

In premium income, the percentage increase in unit-linked insurance policies (up by 42 per cent compared with June 2020, to €22 billion) was higher than that of traditional life policies (up by 7 per cent to €33 billion; Figure 2.23.a). The larger increase in unit-linked policies than in traditional products may limit the mitigation capacity of market volatility, which is typical of insurance companies' long-term investment strategies (see the box 'Investments by insurance companies during the pandemic').

### INVESTMENTS BY INSURANCE COMPANIES DURING THE PANDEMIC<sup>1</sup>

Insurance companies are institutional investors that typically adopt long-term strategies; thanks to the stability of their balance sheet liabilities, they tend to make countercyclical investment choices, which help to reduce market volatility.

<sup>1</sup> By Federico Apicella and Raffaele Gallo.

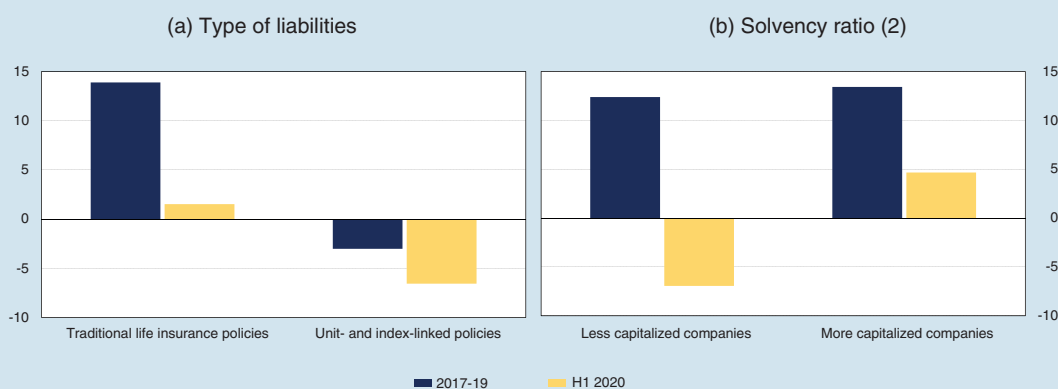
An analysis carried out on the securities portfolio of Italian companies between 2017 and 2020 shows that, in line with what was expected, they increased their exposure on average to securities whose price had fallen.<sup>2</sup> Nevertheless, the results indicate that in the period analysed, they only made countercyclical choices in sectors with more stable liabilities, such as those in traditional life insurance policies. For investments relating to unit- and index-linked policies, products that are similar to investment funds, insurance companies instead made procyclical decisions, reducing their exposure towards securities whose prices had fallen (see panel (a) of the figure).

The capacity of insurance companies to mitigate market volatility declined during the most serious phase of the pandemic, because of the impact of the fall in prices on asset values and on solvency ratios. Specifically, in the first half of 2020, less capitalized companies on average reduced their exposure to securities whose price had fallen, in contrast to what was observed for more capitalized companies (see panel (b) of the figure).

In addition, during the health crisis, insurance companies adopted investment strategies that also differed in terms of types of security. Given the decrease in price, they lowered their exposure towards BBB-rated corporate bonds (those most exposed to the risk of an increase in capital absorption), while they continued to adopt countercyclical strategies in the government securities sector.

Figure

**Change in the average exposure of insurance companies given a 1 per cent reduction in the price of securities (1)**  
(per cent)



Sources: Based on data from the ECB (Centralised Securities Database) and IVASS.

(1) The change in the average exposure in each of the two periods analysed is estimated by multiplying an assumed negative change in price of 1 per cent by the coefficient estimated by a regression model that compared the change in the exposure of each insurance company to the individual securities analysed with the quarterly return on those securities, controlling for the characteristics of the companies and the securities. The change in the exposure is expressed as the percentage of the average share of securities held in the portfolio. – (2) Less capitalized companies are those with a solvency ratio below the first quartile of the distribution at end-2019, while more capitalized companies are those with a solvency ratio above the first quartile. The solvency ratio is calculated as the ratio of own funds held for coverage of capital requirements to the solvency capital requirement established under Solvency II. Investments relating to unit- and index-linked policies are not included.

<sup>2</sup> F. Apicella, R. Gallo and G. Guazzarotti, 'Insurers' investments after the Covid-19 outbreak', Banca d'Italia, Temi di Discussione (Working Papers), forthcoming.



The International Monetary Fund's analyses indicate that a particularly adverse scenario, characterized by an increase in bond yields and a widening of credit spreads, could lead to significant losses for the assets of life insurers in some countries. The effects on Italian life insurance companies should be more limited.<sup>24</sup>

Estimates by IVASS, based on data at 30 June 2021, show that a 25 basis point rise in the bond yield curve would reduce the value of Italian companies' own funds by 8 per cent.

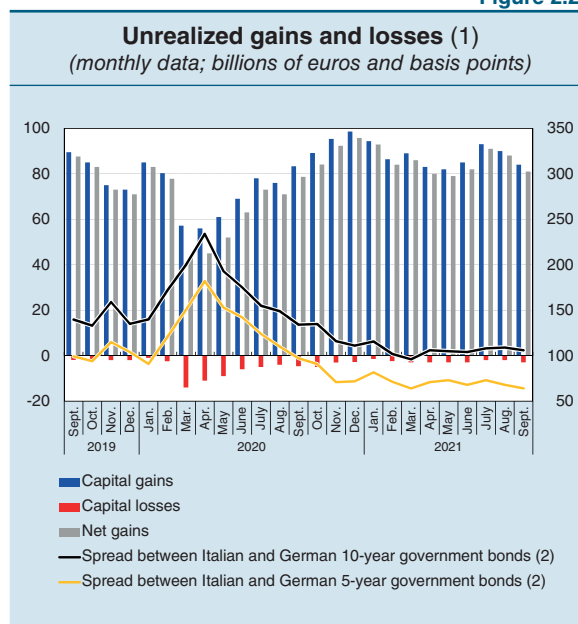
The quarterly financial vulnerability survey conducted by IVASS shows that companies belonging to the main insurance groups (i.e. 60 per cent of Italian companies) are progressively applying the international principles for responsible investments (PRIs), established at the initiative of the United Nations, prioritizing the purchase of sustainable securities and anticipating large disposals of investments with a heavy carbon footprint in the medium and long term.

The preliminary risk assessments for climate change conducted by the European Insurance and Occupational Pensions Authority (EIOPA), based on end-2019 data, show that, assuming the application of limitations on global warming included in the Paris Agreement in the Italian insurance market, the loss on private equity and corporate bond investments will be small, at 5 per cent, a little below the European average of 6 per cent.<sup>25</sup>

Italian companies' net unrealized gains at September 2021 stood at €81 billion, €5 billion lower than last year (Figure 2.24).

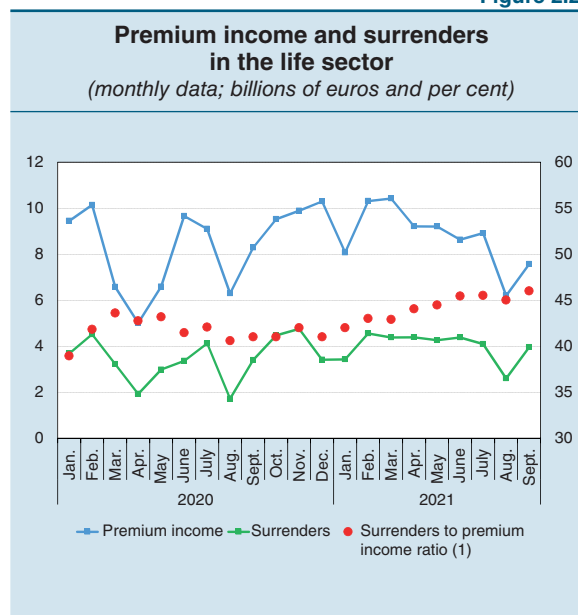
The monitoring of the liquidity position of the insurance sector carried out by IVASS continues to reveal no critical issues (see *Financial Stability Report*, 1, 2021). In June 2021, the liquid asset ratio<sup>26</sup> was stable compared with the end of 2020, at 67 per cent, and higher than the European level of 45 per cent.

Figure 2.24



Sources: IVASS and calculations based on Refinitiv data. (1) The unrealized gains and losses are the difference between the market value and the book value of portfolio securities. – (2) Right-hand scale. End-of-period data.

Figure 2.25



Source: IVASS. (1) Calculated as the ratio of surrenders to premium income. Cumulative data. Right-hand scale.

<sup>24</sup> IMF, *Global Financial Stability Report*, October 2021.

<sup>25</sup> EIOPA, 'Sensitivity analysis of climate-change related transition risks', 2020.

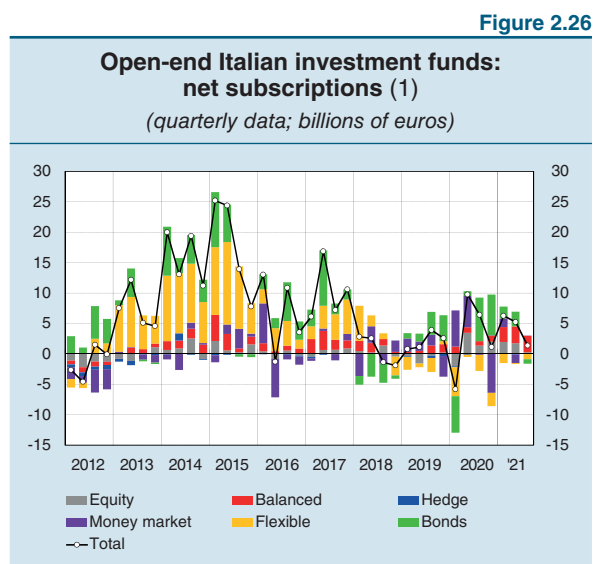
<sup>26</sup> Liquid assets are calculated by applying haircuts to the different asset categories, in line with the banking sector rules set by Commission Delegated Regulation (EU) 2016/322 of 10 February 2016.

In the life sector, the ratio of surrenders to premium income, an indicator of potential liquidity tensions, stayed at historically low levels, standing at 46 per cent last September (Figure 2.25).

### The asset management industry

Between March and September, Italian open-end investment funds recorded net positive inflows worth €6.6 billion, a figure in line with that observed in the previous six months (Figure 2.26). The inflows of resources mainly affected the equity, bond and balanced fund sectors, in which about 85 per cent of the funding went to funds that promote investments with environmental or social characteristics. Flexible and hedge funds, which in the previous four quarters had recorded €10 billion of outflows, had almost zero net subscriptions.

The assets managed by ordinary individual saving plan (PIR) funds reached €20 billion, 1.8 per cent of the total resources of open-end funds. Some 30 per cent of these assets are invested in debt securities issued mainly by listed companies. Investment in bonds of non-listed companies involve larger firms, whose securities are generally more liquid than those issued by small firms.



(1) The data refer to funds based in Italy and abroad, run by asset management companies belonging to Italian groups. The data on the money market segment for Q1 and Q2 of 2016 and for Q1 of 2018 reflect several large transactions by institutional investors. Provisional data for Q3 2021.

The degree of liquidity<sup>27</sup> of open-end funds remained substantially stable, at 6.7 per cent. No significant changes were observed in the lines of credit available or in indebtedness.<sup>28</sup>

Overall, the liquidity risk stemming from significant share redemptions remains limited for Italian open-end investment funds. In July, the share of funds vulnerable to particularly heavy demand for redemptions (with a liquidity indicator of less than one) equalled 4.3 per cent (Figure 2.27.a).

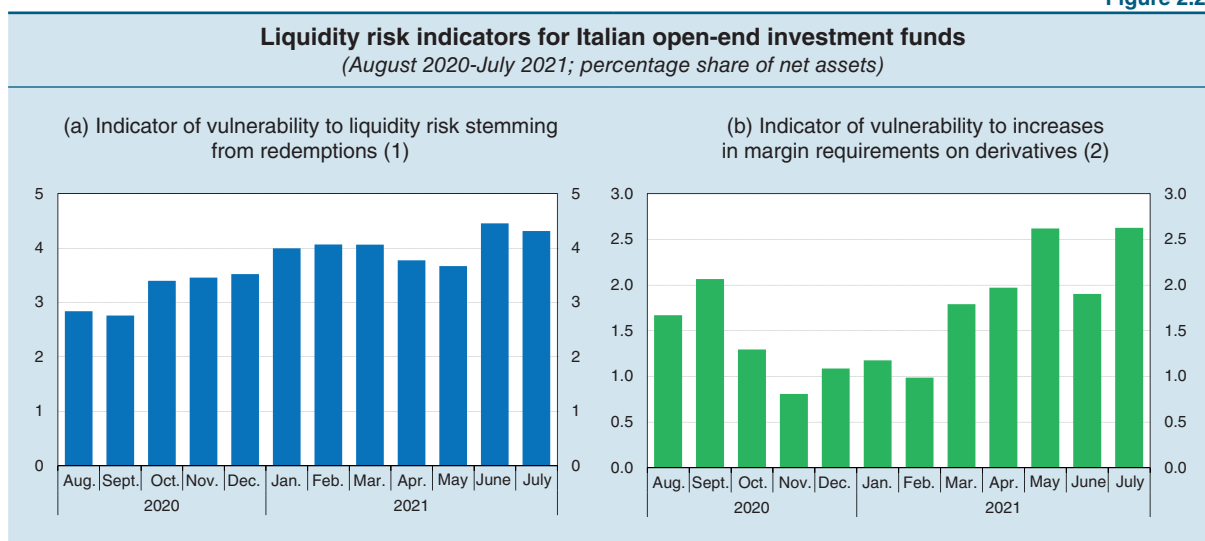
In May and July, the exposure to liquidity risk attributable to changes in margin requirements on derivatives rose to 2.5 per cent (from about 2 per cent in April and June; Figure 2.27.b). The increases were due to the exposures in equity futures of a mixed fund and a flexible fund respectively.

In May, as part of an action coordinated by ESMA, the Bank of Italy sent a communication to Italian managers of undertakings for the collective investment in transferable securities (UCITS) to request a reassessment and, if necessary, an adjustment of the internal liquidity risk management processes (see the box ‘The tensions on the financial markets in 2020: indications for non-bank intermediation and financial stability’ in *Financial Stability Report*, 1, 2021). In particular, assessments by the funds concerned the analysis and forecasts of the liquidity status of the financial instruments in which the funds intend to invest, the continuous alignment of liquidity profiles with redemption policies,

<sup>27</sup> The degree of liquidity is defined as the ratio of current account holdings (net of purchases, sales and subscriptions to be settled) to net assets.

<sup>28</sup> Italian law provides that Italian open-end investment funds can only take out loans on a temporary basis, in relation to the need to invest in or disinvest from fund assets, up to 10 per cent of the overall net value of the fund.

Figure 2.27



Sources: Supervisory reports and ECB (Centralised Securities Database).

(1) Ratio of the net assets of funds with a liquidity risk indicator of less than 1 to total sector net assets. Open-end investment funds in the flexible and mixed bond segments are included. The liquidity risk indicator is equal to the ratio of the fund's assets weighted by the degree of liquidity of each exposure to net redemptions under the stress scenario. The stress scenarios are equal to the average of the values above the 99th percentile of the distribution of net monthly redemptions in relation to total assets for each of the sectors analysed between January 2008 and June 2021 (high yield and emerging country funds: 14 per cent; Euro area: 30 per cent; United States and global: 24 per cent; mixed funds: 24 per cent). – (2) Ratio of vulnerable funds' assets to total sub-sector assets. Vulnerable funds are those whose ratio of liquid assets to margin requirements, determined under the stress scenario and applied to futures positions, is less than 1. The stress scenario is equal to the 1st percentile in the distribution of variation margins in the period from January 2008 to June 2021. Liquid assets include bank current accounts, government securities of euro-area countries, and government securities of other countries with ratings the same as or higher than AA.

the availability of updated and reliable data, governance, and control mechanisms. Supervision is continuing via the monitoring of the measures adopted.

In the first half of 2021, alternative investment funds continued to grow,<sup>29</sup> raising new resources worth €1.5 billion (a figure equal to 4.7 per cent of assets under management at the end of 2020). The flows mainly concerned funds that finance directly or buy credit from other financial intermediaries. The potential risks to stability connected with investment in illiquid assets, which characterize this type of fund, are mitigated by regulations requiring them to be set up as closed-end funds. In the same period, alternative PIRs<sup>30</sup> raised funds worth €500 million, around double the figure for assets under management at the end of last year.

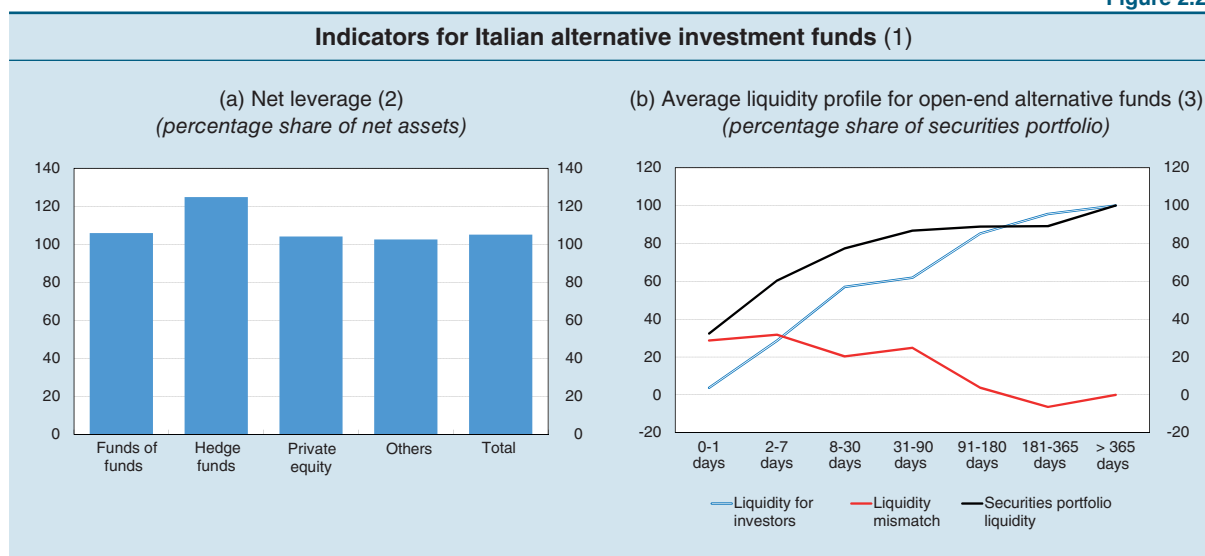
Leverage on alternative investment funds remains modest overall (105 per cent of net assets in June; Figure 2.28.a) and lower than the European average (182 per cent in 2019). Last June, ESMA issued guidelines relating to Article 25 of the AIFMD Directive, to provide guidance for the competent authorities on: (a) how to assess to what extent the use of leverage by alternative investment funds (AIFs) contributes to the build-up of risk in the financial system; and (b) the factors to be considered should the authorities believe it necessary to impose limits on leverage or other restrictions on one or more AIF managers, in order to ensure the stability and integrity of the financial system.<sup>31</sup>

<sup>29</sup> Alternative property funds are investment funds falling within the scope of application of Directive 2011/61/EU, the Alternative Investment Fund Managers Directive (AIFMD); they invest in financial instruments, real estate assets and credits/loans with lower liquidity than OICVM funds.

<sup>30</sup> Alternative PIRs are the funds introduced by Decree Law 34/2020 ('Relaunch Decree') and that mainly specialize in investment in financial instruments issued by Italian SMEs that are compliant with the rules on the new long-term PIRs (see *Financial Stability Report*, 2, 2020).

<sup>31</sup> ESMA, 'Guidelines on Article 25 of Directive 2011/61/EU'; 23 June 2021.

Figure 2.28



Sources: Supervisory reports and data submitted pursuant to the AIFMD.

(1) The AIFMD requires the managers of such funds to regularly provide the competent authorities with information on their main instruments and exposures. – (2) Overall exposure calculated with the method based on the ratio of commitments to the net assets of alternative funds managed by Italian asset management companies. The ‘Others’ category includes funds that provide direct financing or buy credit from other financial intermediaries and those not included in the other categories according to the criteria adopted by ESMA. – (3) For each period, the liquidity mismatch is the difference between the liquidity of the securities portfolio, equal to the average share of the securities portfolio that the open-end funds can liquidate by that date, and the liquidity profile for investors, equal to the average share of assets that investors in these funds can redeem in the same period.

The assessment, which is carried out quarterly starting from the first half of 2022, is divided into two phases: in the first one, the authorities identify the AIFs that, based on the reporting under the AIFMD Directive, may pose risk to the financial system; in the second, they assess the potential systemic risks posed by the identified AIFs and, if necessary, put limits on leverage or adopt other restrictions. The authorities communicate the results of their assessments to ESMA annually and any time they identify a significant risk to financial stability.

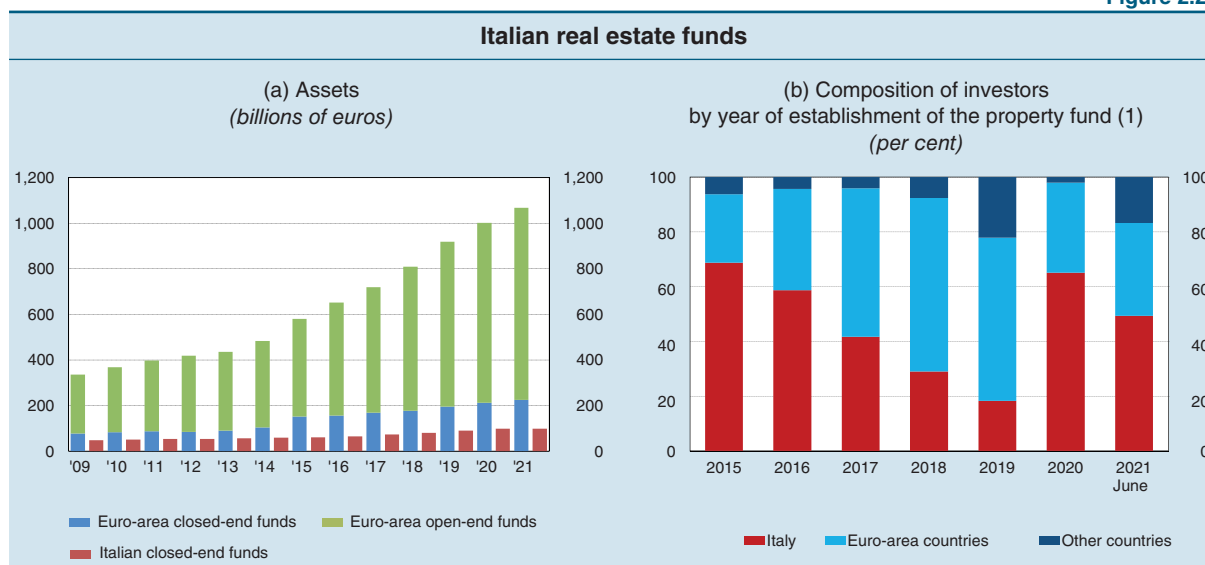
Short-term liquidity risks for open-end alternative funds remain low. With reference to AIFs, which represent 1.1 per cent of the total capital of open-end alternative funds, only in the event of persistent outflows on a time horizon of between six months and one year might there be a slight mismatch between asset liquidity and redemptions for investors, equal to just over 6 per cent of the portfolio (Figure 2.28.b).<sup>32</sup>

In the first half of 2021, real estate fund segment continued to grow; the inflow of new resources was equal to 3 per cent of assets under management at the end of last year (Figure 2.29.a). Funding was sustained by both Italian and foreign investors, whose subscriptions had fallen considerably in 2020, due primarily to a decrease in those by non-euro area residents (Figure 2.29.b).

The value of the portfolio of real estate funds reserved to professional investors benefited from positive net revaluations (Figure 2.30.a). In the retail fund sector, whose net assets represent 1.6 per cent of the total, write-downs continued to be widespread.

<sup>32</sup> The average liquidity mismatch in each period is calculated as the difference between the average share of the securities portfolio that the funds can liquidate by that date and the average share of assets that investors in such funds can redeem in the same period (see note (3) to Figure 2.28). The estimate does not take account of any current account holdings.

Figure 2.29



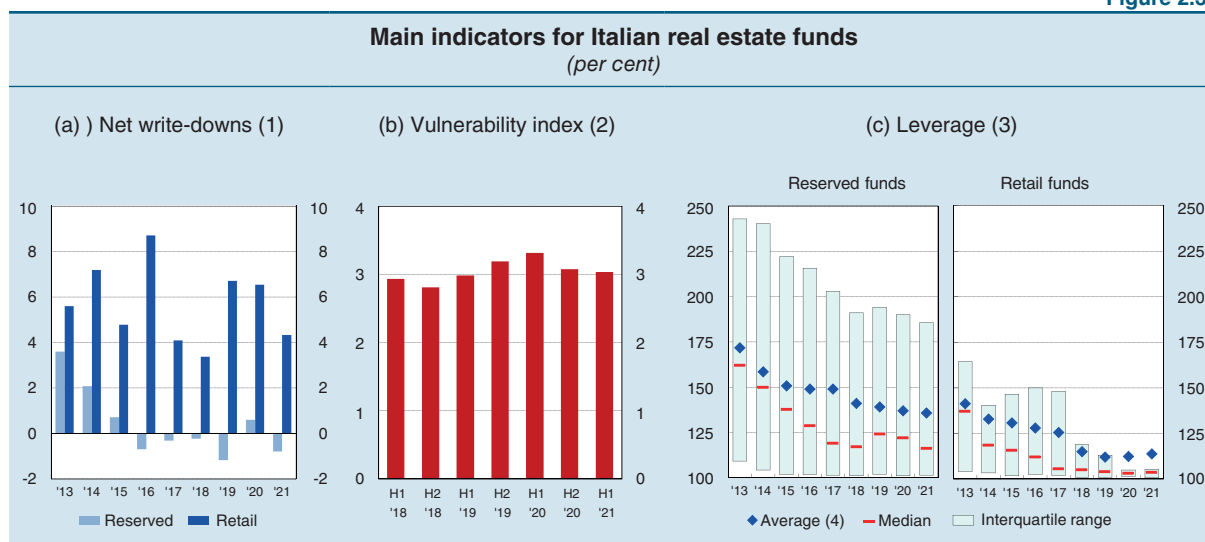
Source: Supervisory reports.

(1) Share of net assets subscribed by the different categories of investors.

There was a slight fall in the share of funds for which a difference is estimated between the total book value of the assets and the market value of the properties in excess of net assets (Figure 2.30.b).

Leverage remained essentially stable, at historically low levels, both for reserved funds and retail funds (Figure 2.30.c).

Figure 2.30



Sources: Supervisory reports and calculations based on data from Istat and the Osservatorio del Mercato Immobiliare (OMI).

(1) Ratio of reserved fund balance sheet write-downs net of revaluations to the average of total assets at the end of the reference year and at the end of the previous year. – (2) Share of the sector's net assets held by property funds for which we estimate that the difference between the book value and the market value of properties is greater than net assets. For each fund, we calculate the difference between the fund's cumulative net write-downs in relation to its assets and the cumulative variations of a theoretical price index for the properties in the portfolio. The index is calculated as the weighted average of the price indices for properties (divided into residential and commercial) by region. The weights are equal to the shares of the assets of each fund that are invested in the markets included in the price indices under consideration. Write-downs and variations in the indices are calculated from the year that each fund was established or from 2009 (the year in which data became available) if the fund was set up prior to that date. Excludes funds in liquidation and those set up in the half year prior to the reference period. – (3) Ratio of total assets to net assets. – (4) Weighted average with weights equal to the denominator of each ratio.

# 3 MACROPRUDENTIAL MEASURES

In the absence of risks to financial stability deriving from excessive credit growth, the Bank of Italy has continued to maintain the countercyclical capital buffer (CCyB) rate at zero per cent (Table 3.1).<sup>1</sup> In line with expectations, in the second quarter of 2021 the credit-to-GDP gap turned negative again, owing to slower growth in bank lending to the private sector and the strong expansion in GDP (see Section 1.1). Nor do the other indicators linked to developments in macrofinancial conditions point to any build-up of vulnerabilities associated with the improvement in the macroeconomic outlook: the share of non-performing loans (NPLs) contracted further, mostly in relation to sales of NPLs. The unemployment rate, in decline owing to the decrease in job seekers following a rise in the number of persons in employment, returned to the levels recorded prior to the start of the pandemic.

The Bank of Italy identified Russia, Switzerland, the United States and, for the first time, the United Kingdom (which following its exit from the EU became a third country), as material third countries for the Italian banking system in 2021 for the purpose of applying the CCyB.<sup>2</sup> The direct monitoring of

**Table 3.1**

Recent macroprudential policy decisions of the Bank of Italy			
Date (1)	Decision	Capital requirement for this year (per cent)	Fully phased-in capital requirement (per cent) (2)
25.6.2021	Setting of the <b>CCyB rate</b> for the third quarter of 2021	0.00	–
30.6.2021	Identification by Italy of material third countries	–	–
16.7.2021	Decision not to reciprocate a macroprudential measure applied by Luxembourg on new mortgage loans on residential real estate	–	–
24.9.2021	Setting of the <b>CCyB rate</b> for the fourth quarter of 2021	0.00	–
19.11.2021	Identification of the UniCredit, Intesa Sanpaolo, Banco BPM and Monte dei Paschi di Siena banking groups as O-SIIs authorized to operate in Italy and setting of the related capital requirement ratios:		
	UniCredit (3)	1.00	1.00
	Intesa Sanpaolo	0.75	0.75
	Banco BPM	0.19	0.25 (2022)
	Banca Monte dei Paschi di Siena	0.19	0.25 (2022)

(1) The dates given are those on which the decisions were published. For a complete list of the [macroprudential policy decisions of the Bank of Italy](#), see the Bank's website. – (2) In brackets, the year of full implementation. – (3) In accordance with European legislation, the UniCredit Group will apply only the higher of the global systemically important institution (G-SII) and other systemically important institution (O-SII) requirements.

<sup>1</sup> For details on the main macroprudential instruments for the banking system, see Table A9 in Selected Statistics. For an international comparison of macroprudential capital buffers, see Table A10 in Selected Statistics.

<sup>2</sup> ESRB, 'Recommendation of the European Systemic Risk Board of 11 December 2015 on recognising and setting countercyclical buffer rates for exposures to third countries (ESRB/2015/1)', 11 December 2015.



the risks of these four countries is carried out by the European Systemic Risk Board (ESRB), which has included them among the material countries for the entire European Economic Area.<sup>3</sup>

Last July, the Bank of Italy considered a request for reciprocity in relation to a macroprudential measure adopted by the central bank of Luxembourg that introduces legally binding loan-to-value (LTV) caps on new mortgage loans on residential immovable property located in that country, with limits differentiated across different categories of borrowers.<sup>4</sup> There are no branches of Italian banks in Luxembourg and loans to households collateralized by residential housing situated there are extremely few in number. It was accordingly decided to not apply the Luxembourg measure to Italian banks.

The Bank of Italy recently confirmed the designation of the UniCredit, Intesa Sanpaolo, Banco BPM and Banca Monte dei Paschi di Siena banking groups as other systemically important institutions (O-SIIs) for 2022.<sup>5</sup> For all four banking groups, the previously established capital buffers were confirmed: when fully phased in, they will be equal to 1.00 per cent for UniCredit, 0.75 per cent for Intesa Sanpaolo, and 0.25 per cent for Banco BPM and Monte dei Paschi di Siena. For the last two banks, the transitional period will end on 1 January 2022 (Table 3.1).

In 2021, the authorities of various European countries changed capital buffer requirements and reduced the use of the SyRB following the transposition of Directive EU/2019/878 (Capital Requirements Directive, CRD V; see the box ‘Changes in the use of systemic risk buffers following the transposition of CRD V’).

#### CHANGES IN THE USE OF SYSTEMIC RISK BUFFERS FOLLOWING THE TRANSPOSITION OF CRD V<sup>1</sup>

Directive EU/2019/878 (Capital Requirements Directive, CRD V) changed some of the rules on macroprudential buffers, including those relative to the systemic risk buffer (SyRB).<sup>2</sup> The new rules explicitly require that the risks addressed by the SyRB differ from those for which the CCyB or G-SII or O-SII buffers are envisaged. While the previous Directive EU/2013/36 (CRD IV) was still in force, a number of countries habitually used the SyRB to mitigate risks stemming from the systemic importance of an individual institution, requiring systemically important banks to hold capital above the maximum level allowed for the O-SII buffer.

<sup>1</sup> By Marianna Caccavaio.

<sup>2</sup> On the introduction of the SyRB in Italy, see the box ‘The introduction of new macroprudential instruments in Italy’, *Financial Stability Report*, 1, 2021.

<sup>3</sup> The European Economic Area comprises Iceland, Liechtenstein and Norway, in addition to the countries of the European Union.

<sup>4</sup> For a description of this measure, see ESRB, ‘Recommendation of the European Systemic Risk Board of 24 March 2021 amending Recommendation ESRB/2015/2 on the assessment of cross-border effects of and voluntary reciprocity for macroprudential policy measures (ESRB/2021/2)’, 24 March 2021.

<sup>5</sup> Banca d’Italia, ‘Identification of the UniCredit, Intesa Sanpaolo, Banco BPM and Monte dei Paschi di Siena banking groups as other systemically important institutions authorized to operate in Italy’, 19 November 2021. For the methodology, see EBA, ‘Guidelines on the criteria to determine the conditions of application of Article 131(3) of Directive 2013/36/EU (CRD) in relation to the assessment of other systemically important institutions (O-SIIs)’, 16 December 2014. The Bank of Italy decided not to use optional indicators or to alter the threshold of 350 basis points set by the EBA for the identification of O-SIIs.

In addition to improving the definition of the perimeter of the various instruments, CRD V has raised the maximum level to which the O-SII buffer can be brought<sup>3</sup> and has changed the rules for combining the SyRB with buffers for systemically important institutions, with the result that these requirements are now always cumulative;<sup>4</sup> it has also made the SyRB more flexible to use, enabling it to be applied to exposures relative to specific sectors.

The legislative changes prompted national macroprudential authorities to readjust capital buffers in a number of countries in the European Economic Area in 2021 and to reduce the use of the SyRB.

It is possible to distinguish between three different approaches:

- a) reduction of the SyRB and increases in the O-SII buffers to above the 2 per cent limit previously in force, without changing the overall capital requirement. These are countries where the SyRB was used to help attenuate the risks stemming from the systemic importance of individual institutions (Czech Republic, Denmark, Netherlands, Sweden);
- b) reduction of the SyRB and of the O-SII buffers in order to minimize the changes to the total capital requirement adopted by the countries where the SyRB was used to mitigate risks other than those linked to the systemic importance of individual institutions (Austria, Finland, Liechtenstein, Norway, Romania). In the absence of interventions by the national authorities, the introduction of the cumulation rule for the two requirements would in fact have entailed a high capital requirement relative to the risks identified;
- c) no change in the requirements. These are countries for which the SyRB was already cumulative with the O-SII buffers insofar as it applied only to domestic exposures (Bulgaria, Croatia, Estonia, Hungary, Iceland, Poland, Slovakia). Most of the countries that in the early months of 2020 released the SyRB in response to the pandemic belong to this group.<sup>5</sup>

<sup>3</sup> The cap for an O-SII parent bank has been raised from 2.0 to 3.0 per cent, while that for an O-SII subsidiary of a G-SII or European O-SII has gone from being the higher between 1.0 per cent and the buffer of the parent bank to the lower between the buffer of the parent bank plus 1 percentage point and 3.0 per cent.

<sup>4</sup> CRD IV, by contrast, applied the higher of the G-SII buffer, O-SII buffer and the SyRB, unless the SyRB applied only to domestic exposures, in which case it was already cumulative with the higher of the G-SII and O-SII buffers.

<sup>5</sup> For further details, see the box 'The macroprudential measures adopted in the European Union in response to the spread of COVID-19', *Financial Stability Report*, 1, 2020.



## **SELECTED STATISTICS**



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Table A1

Financial sustainability indicators (per cent of GDP, unless otherwise specified)												
GDP (1) (annual growth rate)		Characteristics of public debt (2)					Primary surplus (2)	S2 sustainability indicator (3)	Private sector financial debt (4)		External position statistics (5)	
		Level		Average residual life of govt. securities (years)	Non residents' share (% of public debt)			Households	Non-financial firms	Current account balance	Net international investment position	
2021	2022	2021	2022	2021	2020	2021	2020	2021	2021	2021	2021	
Italy	5.8	4.2	154.8	150.4	6.9	36.0	-7.1	1.1	44.0	74.1	4.3	5.2
Germany	3.1	4.6	72.5	69.8	6.6	56.3	-6.5	2.1	57.8	72.3	7.5	61.3
France	6.3	3.9	115.8	113.5	8.1	60.7	-7.8	-1.1	67.2	165.1	-1.3	-35.0
Spain	5.7	6.4	120.2	116.4	7.7	54.0	-6.7	0.2	61.4	106.4	0.8	-78.4
Netherlands	3.8	3.2	58.1	56.2	7.2	49.6	-5.9	3.3	102.9	150.8	8.9	102.2
Belgium	5.6	3.1	113.4	112.9	9.9	70.1	-5.6	3.7	64.3	148.8	1.8	51.3
Austria	3.9	4.5	84.2	81.1	10.9	82.9	-5.3	2.4	52.9	99.7	0.1	13.5
Finland	3.0	3.0	72.2	72.2	6.5	71.9	-4.6	3.2	69.3	123.3	1.7	-1.8
Greece	6.5	4.6	206.7	199.4	....	....	-7.3	....	58.7	69.9	-6.7	-181.0
Portugal	4.4	5.1	130.8	125.7	6.4	58.9	-2.3	-1.5	68.9	105.1	-0.8	-101.4
Ireland	13.0	3.5	57.3	58.8	11.6	75.3	-4.5	2.4	32.1	171.7	15.2	-153.9
Euro area	5.0	4.3	98.9	96.3	....	....	-6.5	1.2	61.2	112.3	2.9	-4.9
United Kingdom	6.8	5.0	108.5	107.1	14.7	37.3	-10.8	....	91.2	77.8	-3.4	-25.8
United States	6.0	5.2	133.3	130.7	5.2	25.0	-9.2	....	80.0	85.4	-3.5	-62.4
Japan	2.4	3.2	256.9	252.3	7.7	13.5	-8.4	....	67.3	115.7	3.5	66.2
Canada	5.7	4.9	109.9	103.9	5.2	23.6	-7.1	....	110.8	130.3	0.5	54.8

Source: ECB, BIS, European Commission, IMF.

(1) IMF, *World Economic Outlook*, October 2021. – (2) IMF, *Fiscal Monitor*, October 2021. – (3) European Commission, *Debt Sustainability Monitor 2020*, January 2021. S2 is a sustainability indicator defined as the immediate and permanent increase in the structural primary surplus that is necessary to meet the general government inter-temporal budget constraint. – (4) Loans and securities. Data for the euro area countries are from ECB, Statistical Data Warehouse and refer to the end of Q2 2021; data for the United Kingdom and non-European countries are from BIS statistics and refer to the end of Q1 2021. – (5) Data for the euro area countries are from ECB, Statistical Data Warehouse and refer to the end of Q2 2021. Data for the United Kingdom and non-European countries are from IMF Data Warehouse and refer to the end of Q1 2021.

Table A2

**Italian banks' coverage ratios by business model**  
(shares and rates)

	Non-performing			Bad debts			Unlikely to pay			Past-due		
	Gross share	Net share	Coverage ratio	Gross share	Net share	Coverage ratio	Gross share	Net share	Coverage ratio	Gross share	Net share	Coverage ratio
<b>June 2021 (1)</b>												
Significant banks	3.8	1.8	53.5	1.5	0.5	67.0	2.1	1.2	45.3	0.2	0.1	28.4
Less significant banks	5.7	3.5	39.8	3.1	1.7	46.1	2.3	1.5	35.3	0.4	0.3	13.5
Traditional banks	4.6	2.4	49.2	2.3	0.9	62.4	2.0	1.2	40.3	0.3	0.3	13.7
Banks specialized in managing NPLs	22.6	20.9	10.2	15.4	14.4	9.2	6.8	6.1	12.5	0.4	0.4	10.7
Other specialized banks	4.7	2.3	51.9	2.5	0.8	67.5	1.4	0.8	46.4	0.8	0.7	12.4
<b>Total banking system (2)</b>	<b>4.0</b>	<b>2.0</b>	<b>52.0</b>	<b>1.8</b>	<b>0.7</b>	<b>63.0</b>	<b>2.0</b>	<b>1.2</b>	<b>44.4</b>	<b>0.2</b>	<b>0.1</b>	<b>26.8</b>
<b>December 2020 (3)</b>												
Significant banks	4.1	2.0	53.5	1.7	0.6	66.4	2.3	1.3	45.0	0.1	0.1	28.3
Less significant banks	6.5	4.1	38.1	3.5	2.1	42.9	2.7	1.8	34.2	0.2	0.2	12.2
Traditional banks	5.1	2.7	48.8	2.5	1.0	61.9	2.4	1.5	39.0	0.2	0.2	12.5
Banks specialized in managing NPLs	25.8	24.3	8.3	18.5	17.8	6.8	7.0	6.3	12.2	0.3	0.3	7.6
Other specialized banks	5.5	2.7	52.6	3.0	0.8	73.6	2.3	1.7	28.3	0.2	0.1	19.3
<b>Total banking system (2)</b>	<b>4.4</b>	<b>2.2</b>	<b>51.2</b>	<b>2.0</b>	<b>0.8</b>	<b>61.7</b>	<b>2.3</b>	<b>1.3</b>	<b>43.4</b>	<b>0.2</b>	<b>0.1</b>	<b>27.5</b>

Source: Harmonized Finrep reports, on a consolidated basis for banking groups and on an individual basis for the rest of the system. This includes all the system's banks.

(1) Provisional data. – (2) The total includes subsidiaries of foreign banks that are classified as neither significant nor Italian less significant banks. – (3) For the purposes of cross-time comparison, one medium-sized less significant intermediary, which became a branch of a foreign significant group in 2021 as a result of an acquisition, was treated as a foreign subsidiary of significant groups as of December 2020.

Table A3

**Italian banks' non-performing loans and guarantees by counterparty sector (1)**  
(billions of euros; per cent; June 2021)

	Gross exposures	Share of total gross loans (2)	Net exposures	Share of total net loans (2)	Collateral (3)	Personal guarantees (3)	Coverage ratio for unsecured loans
<b>Firms (4)</b>							
Non-performing customer loans	61	8.7	26	4.0	28	13	65.4
<i>of which:</i> manufacturing	13	6.3	5	2.4	4	3	70.2
construction (5)	14	21.7	6	10.7	8	3	66.7
services	30	8.1	14	3.9	15	6	61.6
of which: bad loans	30	4.2	9	1.4	13	8	77.0
<i>of which:</i> manufacturing	6	2.9	2	0.9	2	2	78.4
construction (5)	7	11.1	2	4.2	4	2	77.3
services	15	3.9	5	1.4	6	4	76.0
<b>Consumer households</b>							
Non-performing customer loans	21	3.8	11	2.2	14	1	65.8
<i>of which:</i> bad loans	9	1.7	4	0.7	6	0	76.6
<b>Total (6)</b>							
Non-performing customer loans	88	5.7	40	2.7	44	14	64.0
of which: bad loans	41	2.6	14	0.9	19	9	76.0

Source: Individual supervisory reports.

(1) The data are from non-consolidated balance sheets that do not include loans granted by financial corporations belonging to a banking group or by foreign subsidiaries of Italian groups. Includes 'non-current assets held for sale', which at the end of June 2021 came to about €6 billion for the total amount of non-performing loans gross of provisions. Provisional data. – (2) Calculated, gross and net of the relative loan loss provisions, as a percentage of the total corresponding gross and net exposures to the individual sector or sub-sector. – (3) The amounts correspond to the gross exposure that is collateralized or backed by personal guarantees. – (4) In addition to manufacturing, construction and services, the 'firms' sector also comprises agriculture, forestry, fishing and industrial activities other than manufacturing. – (5) Includes real estate activities. – (6) Includes general government, financial and insurance corporations, non-profit institutions serving households, and non-classifiable and unclassified entities.

Table A4

**Exposures of Italian groups and banks to foreign residents by counterparty sector (1)**  
(billions of euros; per cent; December 2020)

	Public sector	Banks	Financial corporations	Households and firms	Total	Per cent of total exposures reported to the BIS (2)	Per cent of total exposures (3)
Euro area (excluding Italy)	201.2	59.5	47.5	206.2	514.4	9.1	18.4
Other industrialized countries	34.9	18.4	28.0	32.0	113.4	1.0	4.1
<i>of which:</i> United Kingdom	0.6	8.0	16.1	6.9	31.6	1.5	1.1
Emerging and developing countries	54.3	16.2	4.9	86.1	161.5	3.8	5.8
Europe	40.8	8.6	3.7	74.7	127.8	14.2	4.6
<i>of which:</i> Russia	1.3	3.4	0.3	14.1	19.1	22.6	0.7
Turkey	0.5	2.8	0.3	1.8	5.4	4.5	0.2
Africa and the Middle East	10.1	2.1	0.2	6.0	18.4	3.5	0.7
Asia and Pacific	2.2	3.5	1.0	3.6	10.3	0.5	0.4
Central and South America	1.1	2.0	0.1	1.8	5.0	0.6	0.2
<i>of which:</i> Argentina	0.0	0.0	0.0	0.0	0.0	0.1	–
Brazil	0.1	1.8	0.0	0.5	2.4	0.8	0.1
Messico	0.4	0.0	0.0	1.0	1.4	0.5	0.1
Offshore centres	0.2	0.2	2.1	4.8	7.3	0.3	0.3
<b>Total</b>	<b>290.6</b>	<b>94.4</b>	<b>82.6</b>	<b>329.1</b>	<b>796.6</b>	<b>3.2</b>	<b>28.6</b>
<i>Memorandum item:</i>							
Energy-exporting emerging and developing countries (4)	7.5	5.2	0.4	17.0	30.0	5.9	1.1

Source: Consolidated supervisory reports for banking groups, individual supervisory reports for the rest of the system.

(1) Exposures to 'ultimate borrowers', gross of bad loans and net of provisions. Does not include BancoPosta and Cassa Depositi e Prestiti SpA. – (2) As a percentage of the total foreign exposures to each country reported to the Bank for International Settlements (BIS) by a large set of international banks. The numerator and denominator refer to 30 June 2021. – (3) Total exposures to residents and non-residents. The numerator and denominator refer to 30 June 2021. – (4) Includes: Algeria, Angola, Azerbaijan, Bahrain, Bolivia, Brunei, Chad, Colombia, Congo, Ecuador, Equatorial Guinea, Gabon, Iran, Iraq, Kazakhstan, Kuwait, Libya, Nigeria, Oman, Qatar, Russia, Saudi Arabia, Sudan, Timor Leste, Trinidad and Tobago, Turkmenistan, United Arab Emirates, Venezuela, Yemen.

Table A5

**Investment by Italian and euro-area banks in public sector securities issued in  
the banks' country of residence (1)**

*(millions of euros; per cent)*

	Italy (2)			Euro area		
	Stocks	Net purchases	Share of total assets (3)	Stocks	Net purchases	Share of total assets
2012	322,686	90,128	8.9	1,251,226	213,410	3.8
2013	375,081	45,331	10.9	1,313,179	46,354	4.3
2014	383,645	-4,299	11.0	1,370,728	6,792	4.4
2015	364,361	-20,898	10.6	1,295,539	-67,495	4.2
2016	333,329	-26,646	9.8	1,205,130	-89,282	3.9
2017	283,742	-46,708	8.5	1,074,168	-119,982	3.5
2018	318,449	43,974	9.7	1,054,143	-8,157	3.4
2019 – Jan.	330,049	9,380	10.0	1,086,006	28,727	3.4
Feb.	334,307	6,472	10.1	1,104,028	21,349	3.5
Mar.	333,046	-3,476	9.9	1,094,497	-13,304	3.4
Apr.	339,415	6,267	10.1	1,086,941	-8,084	3.4
May	336,450	-936	10.0	1,094,951	9,073	3.3
June	330,770	-11,365	9.8	1,071,522	-32,205	3.3
July	339,340	3,277	10.0	1,085,098	5,424	3.3
Aug.	338,508	-4,867	9.9	1,084,151	-7,732	3.2
Sept.	333,948	-6,104	9.7	1,085,046	-1,957	3.2
Oct.	330,790	-2,154	9.6	1,064,178	-18,524	3.2
Nov.	323,092	-4,505	9.5	1,048,164	-10,878	3.1
Dec.	313,293	-9,807	9.4	1,030,977	-16,546	3.2
2020 – Jan.	315,837	-881	9.5	1,027,968	-9,501	3.1
Feb.	320,171	6,873	9.5	1,037,546	13,050	3.1
Mar.	335,699	19,784	9.9	1,084,606	55,092	3.1
Apr.	351,981	18,988	10.3	1,158,270	77,913	3.3
May	362,747	7,712	10.5	1,214,418	50,143	3.5
June	363,134	-3,014	10.3	1,224,174	3,949	3.5
July	369,127	3,147	10.9	1,210,063	-18,098	3.4
Aug.	373,068	4,562	11.1	1,222,794	10,433	3.5
Sept.	372,544	-2,926	11.0	1,227,113	143	3.5
Oct.	368,289	-5,053	10.7	1,201,211	-27,575	3.4
Nov.	357,438	-12,566	10.3	1,185,247	-18,704	3.3
Dec.	342,813	-14,720	10.0	1,145,233	-40,502	3.3
2021 – Jan.	350,768	9,154	10.2	1,154,406	10,800	3.2
Feb.	358,094	8,047	10.4	1,174,160	21,943	3.3
Mar.	351,040	-8,552	10.1	1,199,215	-11,180	3.3
Apr.	353,866	4,938	10.1	1,173,985	-22,447	3.2
May	358,733	4,829	10.2	1,181,023	6,319	3.2
June	353,977	-5,250	10.0	1,158,741	-23,471	3.2
July	357,700	2,145	10.1	1,146,916	-15,815	3.1
Aug.	359,647	2,461	10.2	1,151,496	4,659	3.1
Sept.	355,949	-2,600	10.0	1,133,447	-16,237	3.1

Sources: Individual supervisory reports and ECB.

(1) The data on net purchases refer to the whole period; the data on stocks and share of total assets refer to the end of the period. Purchase amounts are shown net of variations in market prices; holdings are shown at market value. All public sector securities are counted, including those issued by local government authorities. – (2) Cassa Depositi e Prestiti SpA is excluded. – (3) The 'total assets' series does not include bond repurchases.

Table A6

**Italian banks' bonds by holder and maturity (1)**  
(millions of euros; September 2021)

	Maturity					Total
	by 2021	by 2022	between 2023 and 2024	between 2025 and 2029	beyond 2030	
Households (2)	2,299	9,302	11,843	16,267	824	40,534
<i>of which</i> : senior non preferred bonds	–	3	11	36	3	53
subordinated bonds	287	1,400	837	2,760	241	5,525
Banks in the issuer's group (3)	977	3,579	4,528	12,107	902	22,093
<i>of which</i> : senior non preferred bonds	–	–	–	–	–	–
subordinated bonds	12	60	445	125	294	936
Other Italian banks	1,013	5,487	8,697	11,200	1,150	27,547
<i>of which</i> : senior non preferred bonds	–	89	385	676	6	1,156
subordinated bonds	12	74	106	793	196	1,181
Other investors	5,817	33,247	43,381	71,762	21,884	176,090
<i>of which</i> : senior non preferred bonds	–	762	2,220	4,292	726	8,000
subordinated bonds	38	2,022	3,810	10,352	9,347	25,569
<b>Total</b>	<b>10,106</b>	<b>51,614</b>	<b>68,449</b>	<b>111,335</b>	<b>24,761</b>	<b>266,265</b>
<i>of which</i> : senior non preferred bonds	–	854	2,617	5,003	735	9,209
subordinated bonds	350	3,556	5,197	14,030	10,077	33,210

Source: Individual supervisory reports.

(1) Data are indicated at nominal value and refer to bonds entered on the liability side, net of buybacks by the issuer. Rounding may cause discrepancies in the totals. – (2) Consumer and producer households and non-profit institutions serving households. Only resident customers. – (3) Resident banks belonging to the issuer's banking group.

Table A7

**Composition of the assets deposited with the Bank of Italy as collateral  
for Eurosystem credit operations (collateral pool) (1)**  
*(billions of euros; end-of-period values)*

	2014	2015	2016	2017	2018	2019	2020	2021	
								March	September
<b>Total</b>	<b>283.5</b>	<b>253.7</b>	<b>297.3</b>	<b>321.2</b>	<b>310.5</b>	<b>285.8</b>	<b>436.1</b>	<b>496.5</b>	<b>507.1</b>
Government securities	119.8	97.6	88.8	105.8	78.0	68.1	129.4	171.5	165.7
Local and regional government securities	2.9	2.6	1.7	1.9	1.3	0.5	0.8	1.7	1.9
Uncovered bank bonds	10.4	5.8	5.3	5.4	5.0	3.3	5.4	6.5	7.3
Government-guaranteed bank bonds	15.0	0.4	0.3	1.3	2.5	1.0	0.6	0.6	0.6
Covered bonds	49.8	46.4	76.3	76.8	91.3	86.1	99.8	102.5	104.9
Non-bank bonds	1.0	2.5	3.0	3.0	4.3	3.7	4.9	7.2	9.4
Asset-backed securities	40.0	35.5	44.0	49.9	49.7	47.7	45.5	52.0	53.4
Other marketable assets	0.4	0.6	0.8	2.8	1.3	1.8	2.6	3.6	5.2
Non-negotiable assets (bank loans)	44.3	62.4	77.1	74.3	77.1	73.6	147.1	150.9	158.7

Source: based on Eurosystem data.

(1) The collateral pool is valued at the prices taken from the Common Eurosystem Pricing Hub, net of haircuts.



Table A8

Italian banks' net liquidity position (1) (monthly average share of total assets)						
	Significant groups			Less significant groups		
	Cumulative cash flow (2)	Counterbalancing capacity	Liquidity indicator (3)	Cumulative cash flow (2)	Counterbalancing capacity	Liquidity indicator (3)
2018 – Jan.	0.8	12.1	12.9	-0.5	16.1	15.6
Feb.	0.3	13.2	13.5	-1.0	16.7	15.8
Mar.	0.6	13.5	14.1	-2.0	18.7	16.7
Apr.	0.7	13.5	14.2	-3.0	19.9	16.8
May	-0.2	14.1	13.9	-5.3	21.3	16.0
June	-1.2	14.1	12.9	-5.5	20.7	15.2
July	-1.3	13.9	12.5	-4.3	20.0	15.7
Aug.	-0.9	13.9	13.0	-5.2	20.8	15.6
Sept.	-0.2	13.7	13.5	-5.9	21.9	16.0
Oct.	-0.1	13.4	13.3	-4.9	20.5	15.6
Nov.	0.1	13.5	13.6	-4.7	20.0	15.2
Dec.	0.1	13.6	13.7	-5.9	20.2	14.3
2019 – Jan.	-0.5	13.8	13.3	-6.6	20.2	13.6
Feb.	-0.5	14.6	14.1	-5.9	19.1	13.1
Mar.	-0.6	15.0	14.4	-5.8	19.5	13.7
Apr.	0.2	15.6	15.8	-5.8	19.8	13.9
May	0.3	15.8	16.0	-5.5	19.7	14.2
June	0.0	15.9	16.0	-5.3	19.8	14.5
July	0.5	16.0	16.5	-3.9	19.8	15.9
Aug.	0.7	16.3	17.1	-3.5	20.4	16.9
Sept.	1.6	16.6	18.3	-3.6	21.0	17.4
Oct.	1.6	16.7	18.3	-3.2	20.7	17.6
Nov.	0.3	18.2	18.5	-3.8	21.5	17.7
Dec.	-1.0	19.2	18.2	-5.6	21.9	16.3
2020 – Jan.	-1.1	18.6	17.5	-5.9	21.4	15.5
Feb.	-0.4	18.7	18.2	-5.9	22.1	16.1
Mar.	-0.8	18.5	17.7	-4.8	22.3	17.5
Apr.	-1.4	19.6	18.3	-4.4	22.6	18.2
May	-2.8	22.6	19.8	-6.5	25.3	18.7
June	-4.2	24.4	20.3	-7.3	26.1	18.8
July	-0.9	21.9	21.1	-4.5	25.0	20.5
Aug.	-0.9	22.4	21.6	-4.0	25.6	21.3
Sept.	-0.4	22.6	22.1	-3.6	25.1	21.5
Oct.	0.1	21.1	21.2	-2.7	23.7	21.0
Nov.	0.1	21.9	22.0	-1.9	23.3	21.5
Dec.	-0.5	22.0	21.5	-2.1	23.6	21.4
2021 – Jan.	-1.0	21.7	20.7	-3.0	23.6	20.6
Feb.	-0.7	22.0	21.3	-1.2	23.0	21.8
Mar.	0.2	21.6	21.8	-0.2	24.7	24.5
Apr.	0.5	21.0	21.5	1.4	25.3	26.7
May	0.2	22.0	22.2	0.2	26.3	26.5
June	-0.0	22.3	22.3	-0.3	26.7	26.4
July	0.2	22.2	22.4	-0.3	25.3	25.0
Aug.	-0.2	23.1	22.9	-0.7	25.6	24.9
Sept.	-0.3	22.9	22.6	-1.7	26.5	24.8
Oct.	-0.7	22.3	21.6	-1.8	26.8	25.0

Source: Data transmitted to the Bank of Italy by a sample of banking intermediaries for periodic monitoring of their liquidity positions.

(1) Monthly averages based on weekly reports for significant banks (supervised directly by the ECB) and for a sample of less significant banks (supervised by the Bank of Italy in cooperation with the ECB). On prudential grounds it is assumed there is no rollover of maturing obligations towards institutional counterparties. –

(2) Calculated as the (positive or negative) difference between outflows (negative sign) and inflows (positive sign). Outflows include maturing obligations towards institutional clients and bank estimates of expected retail customer outflows. – (3) Calculated as the (positive or negative) difference between the holdings of freely available assets eligible for use as collateral for Eurosystem refinancing operations (counterbalancing capacity) and cumulative expected net cash flows over the next 30 days.

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**Main macroprudential instruments for the banking sector (1)**


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INSTRUMENT	PURPOSE
Instruments harmonized at European level (2)	
Countercyclical capital buffer (CCyB)	To reduce the procyclicality of the financial system by building up capital buffers during expansions in the financial cycle for absorbing potential losses during contractions
Capital buffers for global systemically important institutions and other systemically important institutions (G-SII and O-SII buffers)	To increase the ability of systemically important institutions to absorb losses
Systemic risk buffer (SyRB)	To avert or mitigate long-term structural systemic risks
Higher capital requirements for exposures to the real estate sector	To avert or mitigate systemic risks stemming from exposures to the real estate sector
Instruments not harmonized at European level (3)	
Limits on loan-to-value, loan-to-income, and debt-service-to-income ratios	To smooth the credit cycle and to increase the resilience of banks, by reducing risk-taking by borrowers

(1) For a more detailed list of the instruments, see Recommendation ESRB/2013/1 issued by the European Systemic Risk Board (ESRB). – (2) Provided for in Directive 2013/36/EU (Capital Requirements Directive, CRD IV) on the taking up of the business of credit institutions and on the prudential supervision of credit institutions and investment firms; Regulation (EU) No. 575/2013 (Capital Requirements Regulation, CRR) on prudential requirements for credit institutions and investment firms. – (3) Instruments not envisaged under EU legislation but which can be activated in individual member states based on national legislation, where this is permitted. The list is not exhaustive.

Table A10

Macprudential capital buffers in the countries of the European Economic Area (per cent)										
	Combined buffer requirement (CBR) (1)	Capital conservation buffer (CCoB)	Countercyclical capital buffer (CCyB)		Capital buffer for global systemically important institutions (G-SIIs)		Capital buffer for other systemically important institutions (O-SIIs)		Systemic risk buffer (SyRB)	
			Date of entry into force	Rate	Date of entry into force	Description	Date of entry into force	Description	Date of entry into force	Description
Austria	2.50-4.50	2.50	1 Jan. 2016	0.00			3 June 2021	9 banks: 0.50-1.00	3 June 2021	12 banks (includes 8 O-SIIs): 0.50-1.00
Belgium	2.50-4.00	2.50	1 Apr. 2020	0.00			1 Jan. 2021	8 banks: 0.75-1.50		
Bulgaria	6.00-7.00	2.50	1 Apr. 2020	0.50			1 Jan. 2021	8 banks: 0.50-1.00	15 Oct. 2019	3.00 (2)
Cyprus	2.50-3.50	2.50	1 Jan. 2016	0.00			1 Jan. 2021	6 banks: 0.25-1.00		
Croatia	4.00-6.00	2.50	1 Jan. 2016	0.00			1 Jan. 2021	7 banks: 0.50-2.00	29 Dec. 2020	1.50
Denmark	2.50-5.50	2.50	12 Mar. 2020	0.00			28 Dec. 2020	7 banks: 1.00-3.00		
Estonia	2.50-4.50	2.50	1 Jan. 2016	0.00			1 Jan. 2019	4 banks: 1.00-2.00	1 May 2020	0.00
Finland	2.50-4.50	2.50	16 Mar. 2015	0.00			6 Apr. 2020	3 banks: 0.50-2.00	6 Apr. 2020	0.00
France	2.50-4.00	2.50	1 Apr. 2020	0.00	1 Jan. 2021	4 banks: 1.00-1.50	1 Jan. 2020	6 banks: 0.25-1.50		
Germany	2.50-4.50	2.50	1 Apr. 2020	0.00	1 Jan. 2021	1 bank: 1.50	1 Jan. 2021	13 banks: 0.25-2.00		
Greece	2.50-3.00	2.50	1 Jan. 2016	0.00			1 Jan. 2021	4 banks: 0.50		
Ireland	2.50-4.00	2.50	1 Apr. 2020	0.00			1 July 2021	6 banks: 0.50-1.50		
Iceland	2.50-7.50	2.50	18 Mar. 2020	0.00			8 Apr. 2020	3 banks: 2.00	8 Apr. 2020	8 banks (includes O-SIIs): 3.00 (2)
Italy	2.50-3.50	2.50	1 Jan. 2016	0.00	1 Jan. 2021	1 bank: 1.00	1 Jan. 2021	4 banks: 0.19-1.00		
Latvia	2.50-4.50	2.50	1 Feb. 2016	0.00			8 Dec. 2020	4 banks: 1.25-2.00		

Sources: ESRB and macroprudential supervisory authorities.

(1) For each bank, the CBR is equal to the sum of the CCoB, CCyB, G-SII and O-SII buffers, and the SyRB, pursuant to Article 128(6) of CRD IV. Where a group, on a consolidated basis, is subject to the following buffers, only the highest buffer shall apply in each case: (a) a G-SII buffer and an O-SII buffer; (b) a G-SII buffer, an O-SII buffer and a systemic risk buffer (SyRB), pursuant to Article 131(14) of CRD IV. Where the SyRB applies only to domestic exposures, that SyRB shall be cumulative with the O-SII or G-SII buffer pursuant to Article 133(5) of CRD IV. In the countries where the changes introduced by CRD V have been transposed into national legislation, the SyRB is always cumulative with the higher of the G-SII or O-SII buffers pursuant to Articles 131(15) and 133(1), (7) and (8.c) of CRD IV. – (2) The SyRB applies only to domestic exposures.

Cont.

Table A10 cont.

Macroprudential capital buffers in the countries of the European Economic Area (per cent)										
	Combined buffer requirement (CBR) (1)	Capital conservation buffer (CCoB)	Countercyclical capital buffer (CCyB)		Capital buffer for global systemically important institutions (G-SIIs)		Capital buffer for other systemically important institutions (O-SIIs)		Systemic risk buffer (SyRB)	
			Date of entry into force	Rate	Date of entry into force	Description	Date of entry into force	Description	Date of entry into force	Description
Liechtenstein	2.50-4.50	2.50	1 July 2019	0.00			1 Jan. 2021	3 banks: 2.00	1 Jan. 2020	6 banks (includes O-SIIs): 1.00-2.00
Lithuania	2.50-4.50	2.50	1 Apr. 2020	0.00			1 Jan. 2021	3 banks: 0.50-2.00		
Luxembourg	3.00-4.00	2.50	1 Jan. 2021	0.50			1 Jan. 2021	7 banks: 0.50-1.00		
Malta	2.50-4.50	2.50	1 Jan. 2016	0.00			1 Jan. 2021	4 banks: 0.06-2.00		
Norway	6.50-10.00	2.50	13 Mar. 2020	1.00			1 Jan. 2021	2 banks: 1.00-2.00	31 Dec. 2020	3.00-4.50 (2) (3)
Netherlands	2.50-5.00	2.50	1 Jan. 2016	0.00	1 Jan. 2021	1 bank: 1.00	29 Dec. 2020	5 banks: 1.00-2.50		
Poland	2.50-3.50	2.50	1 Jan. 2016	0.00			1 Jan. 2021	10 banks: 0.10-1.00		
Portugal	2.50-3.25	2.50	1 Jan. 2016	0.00			1 Jan. 2021	6 banks: 0.19-0.75		
Czech Republic	3.00-5.50	2.50	1 July 2020	0.50			1 Oct. 2021	5 banks: 0.50-2.50		
Romania	2.50-4.50	2.50	1 Jan. 2016	0.00			1 Jan. 2020	8 banks: 1.00-2.00	1 Jan. 2019	0.00-2.00
Slovakia	3.50-5.50	2.50	1 Aug. 2020	1.00			1 Jan. 2021	5 banks: 0.25-1.00	1 Jan. 2021	3 O-SIIs: 1.00 (2)
Slovenia	2.50-3.50	2.50	1 Jan. 2016	0.00			1 Jan. 2021	6 banks: 0.25-1.00		
Spain	2.50-3.50	2.50	1 Jan. 2016	0.00	1 Jan. 2021	1 bank: 1.00	1 Jan. 2021	5 banks: 0.25-1.00		
Sweden	2.50-6.50	2.50	16 Mar. 2020	0.00			1 Jan. 2021	4 banks: 0.00-1.00	29 Dec. 2020	3 O-SIIs: 3.00
Hungary	2.50	2.50	1 Jan. 2016	0.00			1 July 2020	8 banks (4)	18 Mar. 2020	0.00 (2)

Sources: ESRB and macroprudential supervisory authorities.

(1) For each bank, the CBR is equal to the sum of the CCoB, CCyB, G-SII and O-SII buffers, and the SyRB, pursuant to Article 128(6) of CRD IV. Where a group, on a consolidated basis, is subject to the following buffers, only the highest buffer shall apply in each case: (a) a G-SII buffer and an O-SII buffer; (b) a G-SII buffer, an O-SII buffer and a systemic risk buffer (SyRB), pursuant to Article 131(14) of CRD IV. Where the SyRB applies only to domestic exposures, that SyRB shall be cumulative with the O-SII or G-SII buffer pursuant to Article 133(5) of CRD IV. In the countries where the changes introduced by CRD V have been transposed into national legislation, the SyRB is always cumulative with the higher of the G-SII or O-SII buffers pursuant to Articles 131(15) and 133(1), (7) and (8.c) of CRD IV. – (2) The SyRB applies only to domestic exposures. – (3) For the institutions that do not follow the advanced IRB approach, the buffer is set at 3 per cent until 31 December 2022. After that date, as for all the other banks, it will be set at 4.5 per cent. – (4) The O-SII buffers are not applied.

