



BANCA D'ITALIA
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Financial Stability Report

April 2020

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SYMBOLS AND CONVENTIONS

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>).

OVERVIEW

The spread of the COVID-19 pandemic has significantly increased the risks to global financial stability. For most countries, this raises the prospect of a sharp fall in GDP in 2020, with deep uncertainty surrounding the timing and extent of the recovery. Financial asset prices have fallen sharply and their volatility has increased; market liquidity has diminished. Households' financial conditions and the balance sheets of firms and financial institutions have become more vulnerable.

The authorities in the main economic areas have introduced expansionary policies to counter the recessionary effects of the pandemic and to safeguard financial stability. In the euro area, the ECB Governing Council has adopted measures to preserve banks' liquidity and to encourage the flow of credit to the economy. A broad programme of public and private sector bond purchases has been launched to safeguard the effectiveness of the common monetary policy; collateral eligibility criteria have been loosened, also in order to smooth the procyclical effects of possible downgrades in issuers' credit ratings. The supervisory authorities have adopted measures to mitigate the effects of the crisis on the soundness of financial institutions and to counter possible squeezes on bank credit.

In Italy, the Government has ploughed very substantial funds into supporting household income and ensuring business continuity. Moratoriums and public guarantees on loans have been introduced to shore up liquidity in the economy.

The impact of the pandemic and of the measures required to deal with the emergency will inevitably entail an increase in the already high ratio of public debt to GDP. Given the temporary nature of the shock and of the expansionary fiscal measures to counter it, their gradual phasing out should see the conditions for the sustainability

of the public finances remaining substantially unaltered in the medium and long term.

The reduction in disposable income and the sharp fall in economic activity are reflected in the worsening of households' and firms' financial conditions. In addition to economic policy measures, the resulting risks to financial stability are being mitigated by low household indebtedness and the financial strengthening carried out by firms in recent years.

The banking sector is also exposed to the repercussions of the pandemic. The decline in economic activity reduces demand for financial services and puts a strain on borrowers' ability to repay loans. Tensions on financial markets make wholesale funding and the raising of new capital more difficult and costly. Portfolio losses squeeze capital.

Italian banks are facing the new risks from a stronger position than at the start of the global financial crisis. Between 2007 and 2019, the ratio of the highest loss-absorbing capital to risk-weighted assets almost doubled, loans are now funded entirely by deposits, and there are no signs of a weakening of depositor confidence in banks. The ample opportunities for Eurosystem refinancing help to lessen funding pressures.

The increased volatility and the marked decline in financial asset prices have affected insurance companies' solvency positions, which nevertheless remain well above the regulatory minimum. The pandemic could also have significant effects on companies' liquidity and profitability.

Italian open-end investment funds have dealt smoothly with the large volume of redemption requests connected with sharp drops in prices on the financial markets. The liquidity risks for the sector are limited, including those that might arise as a result of the increase in the margins required to guarantee derivative operations.

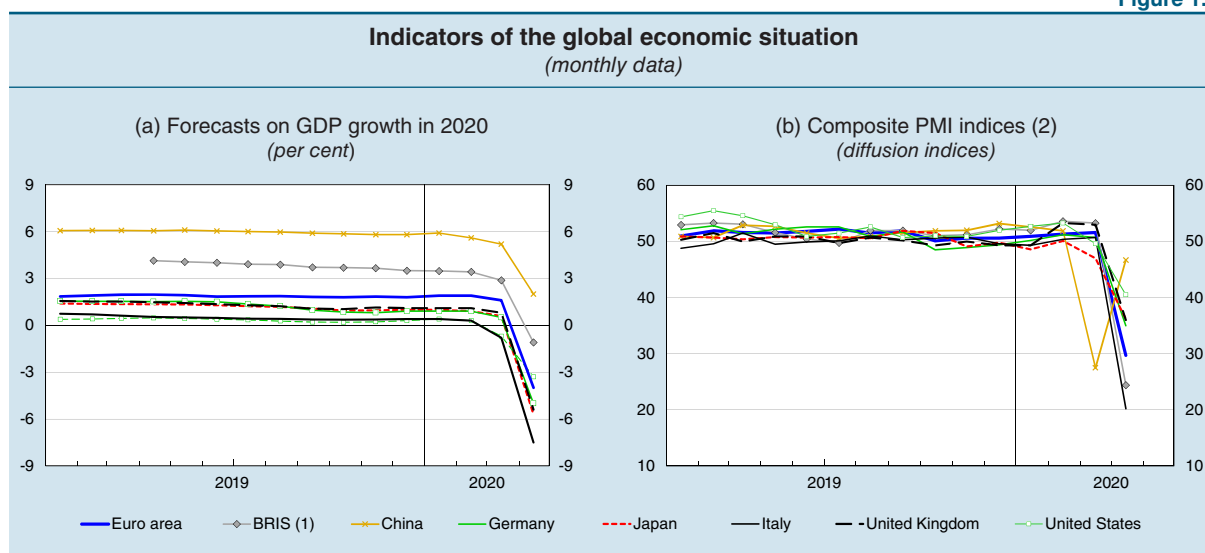
1 MACROECONOMIC RISKS AND RISKS BY SECTOR

1.1 MACROECONOMIC RISKS

Global risks and euro-area risks

The COVID-19 pandemic has serious repercussions for global economic activity. Growth forecasts have been revised markedly downwards (Figure 1.1), share and corporate bond prices have fallen sharply and their volatility has increased considerably.

Figure 1.1



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

(1) Average for Brazil, Russia, India and South Africa (BRIS), weighted on the basis of each country's GDP (IMF, *World Economic Outlook Database*, October 2017). – (2) Diffusion indices of economic activity in the various sectors based on purchasing managers' assessments (PMI). Each index is obtained by adding half of the percentage of replies of 'stable' to the percentage of replies of 'increasing'.

The fiscal and monetary authorities of the main economic areas have responded decisively with measures to counter the recessionary effects of the pandemic and to preserve financial stability. Numerous fiscal policy interventions are designed to increase the resources available to the health systems, provide firms with liquidity, and support household employment and income. According to the initial estimates of the International Monetary Fund (IMF), the amount of the new public interventions decided from March onwards stands at over 5 per cent of GDP for many advanced economies. The European Union has activated the general escape clause of the Stability and Growth Pact so that countries can face the challenges posed by the epidemic with all the necessary budgetary flexibility. Government measures have been accompanied by strongly expansionary interventions on the part of central banks, not only to support the economy and combat deflationary pressures but also to ensure the orderly functioning of the financial markets and the availability of credit to households and firms (see the box 'Global measures to support financial stability').

GLOBAL MEASURES TO SUPPORT FINANCIAL STABILITY¹

The global spread of COVID-19 has exerted a macroeconomic shock of exceptional magnitude and uncertain duration. In response to the crisis, numerous countries have adopted a wide array of measures to support the flow of credit to the real economy, to keep markets functioning and to ensure operational and business continuity of financial institutions. How soon the economy recovers will also depend on how effective these measures are in easing financial tensions and supporting the real economy.

Monetary policy measures. – The monetary authorities have taken highly expansionary measures: key policy rates have been lowered, new refinancing operations launched, and the eligibility criteria for collateral loosened. To improve liquidity conditions in dollar funding markets swap line agreements between the US Federal Reserve and the other central banks have been entered into or revised (see Chapter 1, *Economic Bulletin*, 2, 2020).² Central banks in the main economic areas have expanded their asset purchase programmes of private and public sector securities, including non-financial commercial paper.³ The Federal Reserve has also established the Money Market Mutual Fund Liquidity Facility,⁴ to help meet very strong demand for redemptions and, under its Secondary Market Corporate Credit Facility, has made provision for purchases of exchange-traded funds (ETFs), especially those specialized in investment-grade corporate bonds. The Bank of Japan has raised the threshold for purchases of ETFs and Japan real estate investment trusts (J-REITs) for the express purpose of compressing risk premiums.

Government measures to support credit and liquidity. – Governments have adopted numerous measures to support the liquidity of the productive sector and to ensure access to credit, including public guarantees on business loans, the disbursement of new loans, tax and credit moratoriums. The introduction or strengthening of public sector guarantee programmes was practically universal.⁵ The recent interventions vary, in scope and amount, but share some common features, including an increase in potential beneficiaries⁶ and in the proportion of the

¹ By Cristina Angelico and Sabrina Pastorelli.

² The Federal Reserve has boosted US dollar availability in other countries by changing the swap line agreements in place with the main central banks and entering new agreements with nine countries, including Brazil, South Korea and Mexico.

³ Among the numerous initiatives, the monetary authorities have activated or expanded their purchases of commercial paper and bonds issued by non-financial companies. The Eurosystem has increased its purchases of private sector securities, by activating the new pandemic emergency purchase programme (PEPP), which also allows purchases of public sector bonds, and by extending the existing corporate sector purchase programme (CSPP) to include commercial paper issued by non-financial companies with sufficient credit quality with maturity of under six months (see the box ‘The monetary policy measures adopted by the ECB in March 2020’, *Economic Bulletin*, 2, 2020). The UK has activated the Covid Corporate Financing Facility (CCFF); Canada has activated the Commercial Paper Purchase Program (CCPP) and announced the Corporate Bond Purchase Program (CBPP); and the US has activated the Commercial Paper Funding Facility (CPFF) and the Primary and the Secondary Market Corporate Credit Facility (PMCCF and SMCCF). In Japan, the central bank has increased purchases of commercial paper and of private sector bonds (see Bank of Japan, ‘Enhancement of monetary easing in light of the impact of the outbreak of the novel coronavirus (COVID-19)’, 16 March 2020).

⁴ See on the Federal Reserve's website, ‘Money market mutual fund liquidity facility’.

⁵ Such measures have been adopted by a number of countries that sit on the Financial Stability Board (FSB), including Canada, Italy, France, Germany, Japan, Spain, Switzerland and the United States.

⁶ On the ‘Temporary Framework for State aid measures to support the economy in the current COVID-19 outbreak’, see Communications from the Commission adopted on 19 March 2020 and amended on 3 April, C(2020) 1863 final and C(2020) 2215 final.

loans guaranteed, as seen in France, Germany and Italy. Significant variations are observable in: (a) coverage ratios, which can be as high as 100 per cent as, in some cases, in Italy and Germany; (b) the maximum amount for loans per firm, often determined in proportion to their turnover;⁷ (c) the cost of the guarantees; (d) their maturity, typically between one and ten years (in Belgium and Germany, respectively).⁸ In the short term, these measures will ensure a significant reduction in expected loan losses, encouraging intermediaries to extend credit despite increased risks; in the longer term, how they affect the economic recovery will also depend on additional economic policy measures to rebalance the financial structure of firms.

Many countries have adopted instruments to ensure access to credit by firms through loan disbursement. In the United States, government institutions and the Federal Reserve are providing financial support in the form of various initiatives to companies of all sizes;⁹ in Germany, lending programmes implemented through the national development bank KfW have been endowed with limitless funds and are characterized by the assumption of higher credit risk.

Most countries have adopted tax deferrals, implemented in different ways. Government debt moratoriums have been less commonplace, although they were introduced in some European countries, including Italy, Portugal and Spain.¹⁰

Specific policies to support households during the crisis have been drawn up in a few countries, providing for the suspension of debt and mortgage repayments. Italy has strengthened its Solidarity Fund for first-home mortgage loans, suspending instalments for up to 18 months and contributing towards interest payments. In the United States, the CARES Act provides, among other things, relief to holders of government-backed mortgages.¹¹

Prudential supervision. – The supervisory authorities have exploited the flexibility of the rules to temporarily ease some prudential constraints, thereby supporting the flow of credit to the economy. In Europe, the Single Supervisory Mechanism (SSM) is permitting banks classified as significant to operate below some capital and liquidity thresholds. It has also announced a temporary reduction in capital requirements for market risk (see the box ‘Measures adopted by the supervisory authorities and effects on banks’, in Chapter 2). The SSM and a number of national supervisory authorities in and outside of Europe, have recommended that intermediaries do not distribute dividends to preserve capital within the banking system. These measures have been reinforced by the release of the countercyclical capital buffer and additional expansionary measures decided by the national macroprudential authorities (see Chapter 3, ‘Macroprudential measures’).

⁷ In Italy the maximum amount of funds that can be granted through the Central Guarantee Fund is based on a number of parameters; in the case of loans for small amounts, this cannot exceed 25 per cent of turnover. In Germany, under the new *Schnellkredit* programme with guarantees of 100 per cent, the maximum amount is equal to 25 per cent of annual turnover.

⁸ Germany has introduced the *Schnellkredit* programme, which provides for the immediate disbursement of loans backed in full by KfW to small and medium-sized enterprises with more than ten employees and for a maximum duration of up to ten years. Since 22 April, the duration of loans of up to €800,000 disbursed under the KfW programmes *Unternehmerkredit* and *ERP-Gründerkredit*, in the KfW 2020 special programme, has been extended from five to ten years.

⁹ The CARES Act (Coronavirus Aid, Relief and Economic Security Act) contains a broad panoply of measures to support the productive system, partly implemented through the Small Business Administration.

¹⁰ In other countries, such as Greece, Ireland and the Netherlands, private sector institutions have granted payment holidays to firms affected by the pandemic (see on the ESRB’s website, ‘[Policy measures in response to the Covid-19 pandemic](#)’).

¹¹ The CARES Act provides for, *inter alia*, forbearance periods of up to 180 days on mortgages backed by the federal government, provided that borrowers find themselves in difficulty owing to the public health emergency; this measure can be extended by another 180 days.

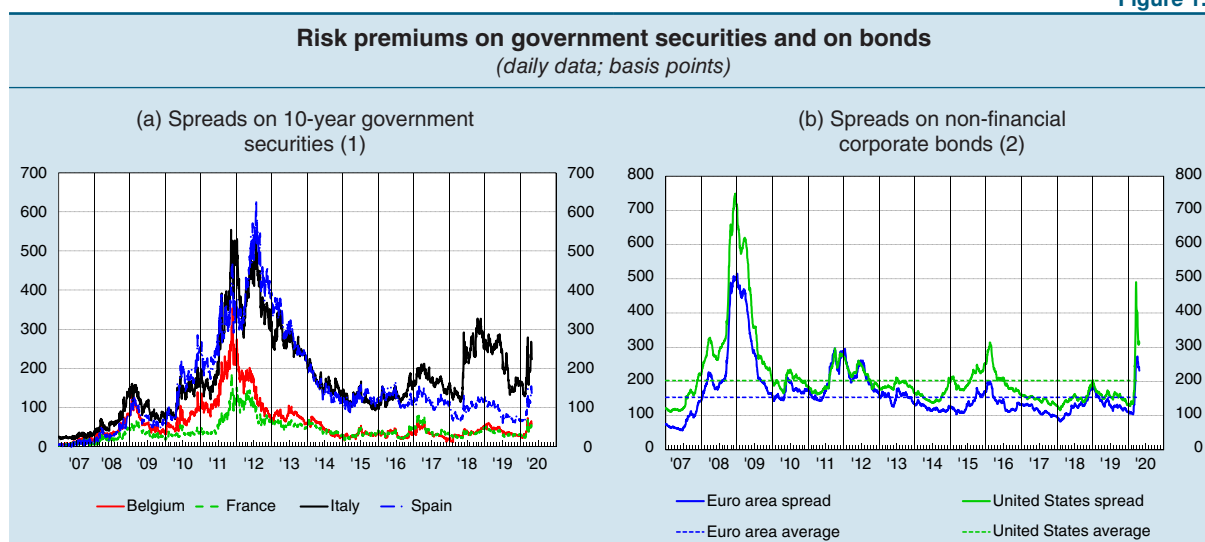
Measures designed to keep markets functioning and to ensure operational and business continuity of financial institutions. – During the phases of high volatility, market wide circuit breakers have been activated on more than one occasion. The purpose of these trade halts is to grant market operators the time they need to accurately access the data in their possession and to make rational decisions. The majority of the market supervisory authorities have so far avoided halting trading for extended periods of time and have focused on ensuring business continuity in stock exchange markets. This approach has helped to maintain the confidence of operators in market infrastructures, in the liquidity of financial instruments and in the possibility of adjusting their portfolios, hedging against risks and meeting their obligations on time. To limit episodes of heightened volatility, some market supervisory authorities have also introduced restrictions on short selling.¹²

Intermediaries have activated business contingency plans to reduce operational risks and to guarantee essential financial services, such as the management of cash, electronic payments and of loans.

¹² Restrictions on short selling have been introduced in several countries, including France, Greece, Italy, South Korea, Spain and Turkey.

In most countries, expectations of a rapid worsening of public finance balances and of a sizeable increase in government bond issues have led investors to demand higher premiums for both sovereign risk (Figure 1.2.a) and liquidity risk. There have been repeated tensions with widespread liquidity shortages on the main government securities and repo markets. In the euro area, to restore the correct functioning of these markets and maintain risk premiums at levels compatible with an effective transmission of monetary policy impulses, the ECB Governing Council has introduced a pandemic emergency purchase programme (PEPP). The programme is for a substantial amount overall (€750 billion) and is extremely flexible as regards the time frame and composition of purchases across asset classes and among jurisdictions in order to enable operations designed to maintain the stability of securities markets and other connected markets (see the box ‘The

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 those of the corresponding German Bund. – (2) Spreads refer to BBB-rated bonds issued by non-financial corporations. The dashed lines indicate the averages of the spreads from 1993 to 2020.

monetary policy measures adopted by the ECB in March 2020', in *Economic Bulletin*, 2, 2020). The US Federal Reserve and the central banks of other economies have undertaken measures with similar objectives. Overall, the interventions carried out at global level have made it possible to prevent tensions on government securities markets from turning into marked financial instability; in Europe, these measures have on average ensured far more relaxed conditions than those at the beginning of this decade during the most serious phases of the sovereign debt crisis.

There have also been marked tensions in the private sector bond markets. Spreads have widened, rapidly reaching very high levels (Figure 1.2.b); there have been considerable outflows of savings from funds specializing in corporate bonds. Issues of new bonds virtually came to a halt in the high yield sector in March, while in the investment grade sector they were mainly performed by very large companies, considered to be particularly financially sound. The tensions have also affected many other debt instruments issued by firms, including commercial paper and leveraged loans (see *Financial Stability Report*, 2, 2019). At global level, firms have shown a marked tendency to make full use of credit lines as a precautionary measure. The fiscal and monetary authorities are activating several instruments to ease the tensions stemming from firms' growing need for liquidity.

In the euro area, the ECB Governing Council has introduced new refinancing operations to encourage bank loans to firms: it has expanded the set of the asset purchase programmes in terms of both size and eligible assets and it has relaxed the eligibility criteria applicable to assets acceptable as collateral for refinancing operations. By exploiting the flexibility of the regulations, the Single Supervisory Mechanism (SSM) has made some microprudential requirements temporarily less stringent so as to facilitate credit supply. The macroprudential authorities of several countries have introduced expansionary measures. Different forms of moratorium have been adopted in some jurisdictions on payments of bank loans to households and firms.

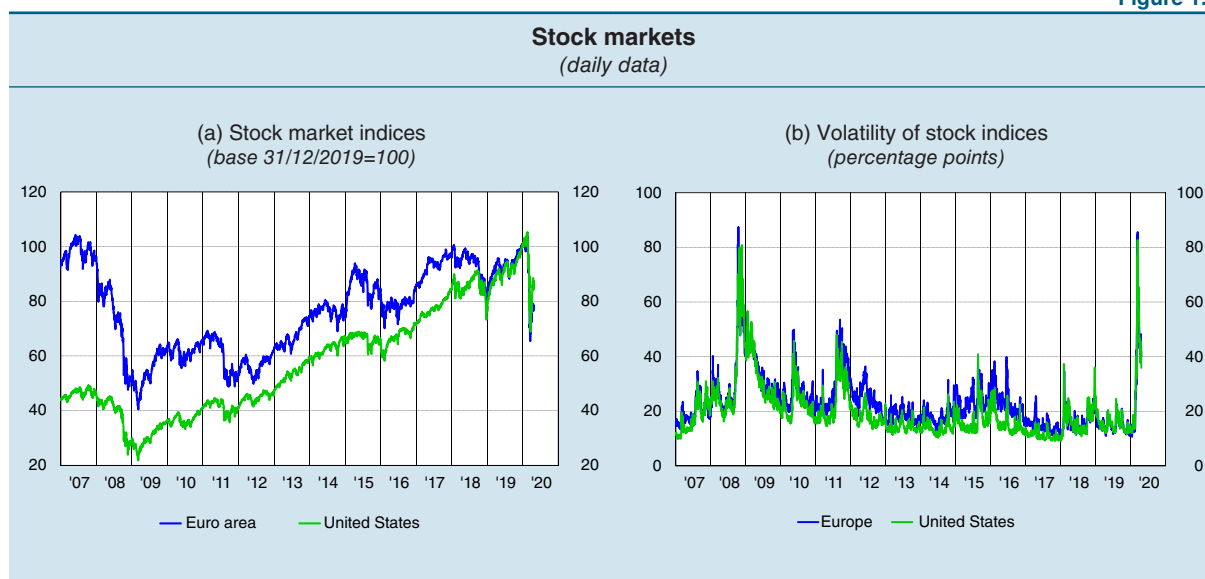
The European Commission has launched new procedures to ensure that the governments of individual EU member states can provide financial assistance to firms in difficulties without infringing the rules on State aid.

Although these measures have generally managed to halt the increase in risk premiums on private debt, thereby limiting the cost of new loans, default rates, both actual and expected, are increasing significantly. Many of the largest banks are setting aside considerable sums to cope with the greater losses. According to our calculations based on forecasts by Moody's, the share of companies worldwide downgraded from investment grade to high yield (fallen angels) will increase considerably over the next year, from 1.3 to 3.0 per cent (from 2.4 to 5.7 per cent of issuers currently with a class BBB rating). To mitigate the effects of downgrades in the US market, where non-banking funding is extremely important, the Federal Reserve has also decided to purchase bonds that have lost their investment grade rating since mid-March, as long as their ratings are still at least in the BB class. Similarly, the ECB has begun to accept bonds as collateral that met the minimum credit quality requirements for collateral eligibility on 7 April but have since been downgraded to high yield, provided their rating does not go below the best two notches of this category (BB+ for asset-backed securities; BB for other securities).¹

The crisis triggered by the pandemic has also had very negative repercussions for global stock markets. In just a few weeks, the indices of the main advanced countries declined by more than 30 per cent (Figure 1.3.a), albeit with significant recoveries over the last month. The expected

¹ ECB, 'ECB takes steps to mitigate the impact of possible rating downgrades on collateral availability', press release, 22 April 2020.

Figure 1.3



Source: Refinitiv.

volatility, based on stock index options, has reached a peak similar to that recorded in the most intense phase of the 2008 financial crisis (Figure 1.3.b). The marked fluctuations in share prices have led to frequent temporary automatic halts in trading ('circuit breakers'), which are imposed by the stock markets according to predefined rules.

The turmoil in financial markets has placed non-bank intermediaries under great stress, including many investment funds and exchange-traded funds (ETFs) that, despite investing in illiquid assets, offer their investors the option of redeeming their ownership interests quickly. Various open-end investment funds, especially in the real estate, speculative and credit sectors, have suspended redemptions, as they were unable to cope with the huge flow of divestment requests recorded in the worst phases of the turmoil. As it did in the 2008 financial crisis, the Federal Reserve has had to set up an emergency mechanism to provide liquidity to funds that invest in money market instruments.

The major international banks are well capitalized and have ample liquidity reserves for tackling the ongoing crisis. Compared with the past, they are also less exposed to market risks on average, having gradually reduced the level of securities in their portfolios. The fall in banks' share prices, which in some cases are more than 40 per cent down on the figures for the beginning of the year, and the high price volatility mean that any future recapitalization operations that might be needed will be more difficult. In order to preserve banks' capital and encourage lending to the economy, many jurisdictions have provided public guarantees on new loans, reconciling the need to limit losses on loans with the need to ensure an adequate flow of financing to firms. Various supervisory authorities have recommended that banks avoid or limit the distribution of dividends and the payment of bonuses to employees. The tensions that have emerged in interbank markets have caused the central banks to supply abundant liquidity promptly to the banking system, both in national currencies via repos and securities purchases, and in foreign currency, particularly US dollars, through currency swap lines agreed at international level.

In the last few months, outflows of capital from emerging countries have been more intense than ever before. The sudden increase in risk aversion has pushed international investors towards assets and currencies

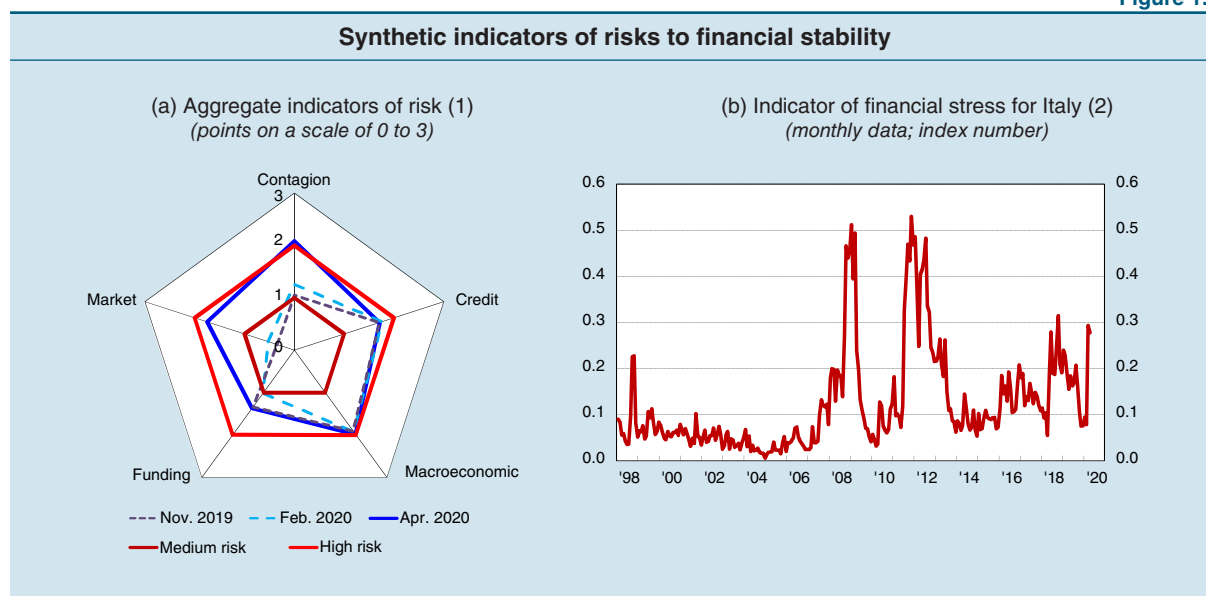
perceived as being safer. In the countries affected by the outflows, share prices have fallen markedly, sovereign spreads have widened and currencies have depreciated; the latter have particularly hit countries that export raw materials. The marked decline in demand has led to an unprecedented reduction in the price of oil, which increases the financial vulnerability of oil-producing firms and countries. China's financial markets have proved more resilient than those of the other emerging countries, thanks to the robust interventions of the fiscal and monetary authorities and more recently to the first signs of economic activity resuming.

The IMF, whose overall capacity to provide funding is close to \$1,000 billion if the New Arrangements to Borrow and the Bilateral Borrowing Agreements are activated, has received numerous requests for financial assistance so far (around 100), mainly from low-income countries and small emerging countries, for a total amount of about \$50 billion. To satisfy these requests, the IMF has announced it stands ready to activate emergency loan schemes for a total amount of \$100 billion, \$20 billion of which destined for low-income countries and \$80 billion for emerging countries. In response to the invitation of the IMF and the World Bank, the G20 has said it is in favour of the possibility of granting temporary moratoriums on the foreign debt servicing costs of low-income countries.

Macrofinancial conditions in Italy

The risks to financial stability are increasing significantly in Italy too. The decline in economic activity and the uncertainties over the more long-term effects of the crisis have led to a sharp deterioration in conditions on financial markets and a marked growth in contagion risks in the banking sector (Figure 1.4.a). The consequences of the spread of the COVID-19 epidemic for macroeconomic risks will become increasingly evident with the update on the data on GDP growth and on the conditions of the public finances, which are made available less frequently. Analysts' forecasts on the size of the decrease in GDP are currently characterized by considerable uncertainty: the most favourable ones indicate a reduction of 4 per cent, while the most pessimistic ones are around 12 per cent (see the box

Figure 1.4



Source: Based on Refinitiv data.

(1) 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. – (2) The index 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.

‘The transmission of the effects of the pandemic to the Italian economy’, in *Economic Bulletin*, 2, 2020).

The financial stress indicator rose sharply in March to high levels, though lower than the peaks reached during the 2008 financial crisis and the 2012 sovereign debt crisis (Figure 1.4.b). The deterioration has influenced both the public and private sector bond market and the stock market, including the segment for financial intermediaries.

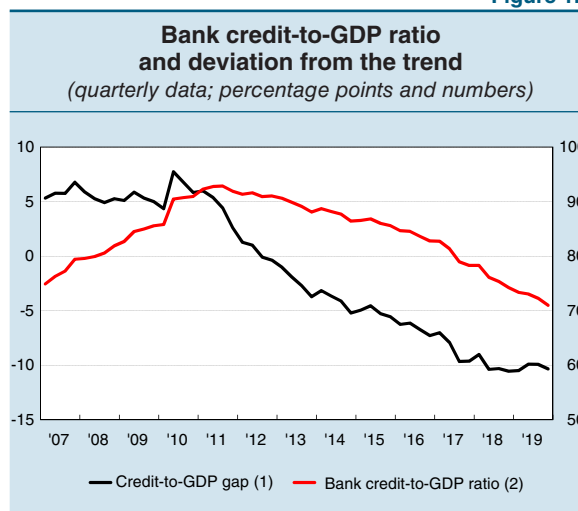
The yield spread between ten-year Italian securities and the corresponding German Bund has widened markedly since the last week of February, partly reabsorbed following the launch of the PEPP. Based on preliminary data, the strong tensions on the markets in March were accompanied by substantial sales of Italian government securities by foreign investors.

The fall in economic activity is mirrored in the financial cycle. According to our latest projections, the growth in loans to households is expected to come to a halt in the current year; the decline in bank lending to firms, under way since the beginning of 2019, may worsen for the sector as a whole, despite the increase in indebtedness in order to cope with greater liquidity needs (see Section 1.2). The difference between the credit-to-GDP ratio and its long-term trend (credit-to-GDP gap) is markedly negative (Figure 1.5).

In 2019, the debt-to-GDP ratio remained stable at 134.8 per cent; net borrowing decreased to 1.6 per cent of GDP, 0.6 points below both the previous year’s figure and the estimate published in last September’s Update to the 2019 Economic and Financial Document. In order to manage the epidemic and limit its impact on the economy, in light of the evolution of the emergency, the Government first introduced measures with no impact on the public accounts and then implemented a package of expansionary measures that increases net borrowing for the current year by about €20 billion (1.1 per cent of GDP) and a further intervention that considerably strengthens public guarantees on loans to firms.² On 24 April, the Government approved the 2020 Economic and Financial Document, which reports an estimate of net borrowing for 2020 equal to 10.4 per cent of GDP (5.7 per cent in 2021); this estimate includes the effects of a new expansionary measure (€55 billion), currently being finalized.

On 24 April, the S&P Global Ratings agency confirmed Italy’s credit rating as BBB, with a negative outlook. On 28 April, Fitch Ratings instead decided to downgrade its rating from BBB with a negative outlook to BBB-, with a stable outlook. Both agencies forecast a marked increase in the debt-to-GDP ratio in 2020, owing to the fall in GDP and the increase in the spending

Figure 1.5



Sources: Based on Bank of Italy and Istat data.

(1) For information on the methodology used to estimate 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. – (2) Right-hand scale.

² See the Bank of Italy’s website, ‘Report on the conversion into law of the ‘Cure Italy’ decree on extraordinary measures to safeguard health and support the economy’, (only in Italian) 25 March 2020; ‘Conversion into law of Decree Law 23/2020 (urgent measures on access to credit and on tax obligations for firms, on special powers in strategic sectors, and interventions regarding health and labour, and on extending administrative and procedural deadlines)’, hearing of the Head of the Structural Economic Analysis Directorate, F. Balassone, Chamber of Deputies, Rome, 27 April 2020 (only in Italian).

needed to tackle the economic consequences of the public health emergency. Italy's credit rating benefits from various positive elements, however, including Eurosystem purchases of government securities and a wealthy and diversified economy. For all the main international ratings agencies, Italy's credit rating is in the investment grade category.

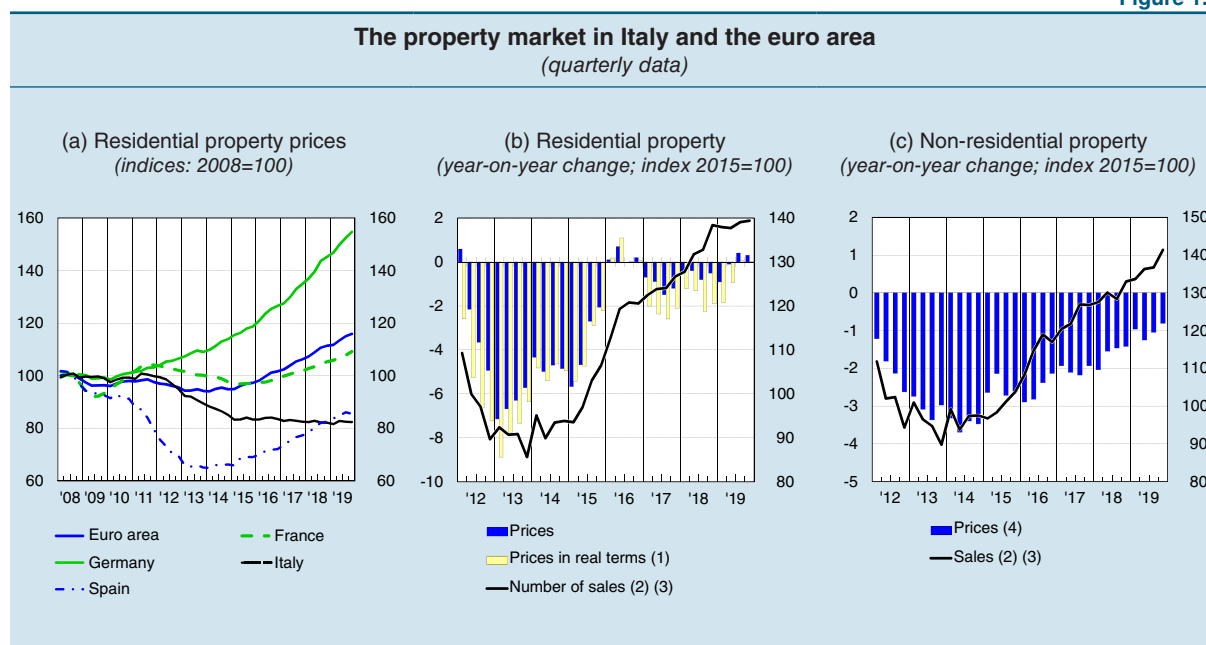
The effect on GDP growth of the pandemic and of the measures to contain it can only lead to a significant increase in the already high public debt. Given their temporary nature, the expansionary measures decided because of the public health emergency should not affect the medium to long-term sustainability of Italy's public debt, if as expected they are gradually but progressively phased out. Any increase in the sensitivity of the prices of government securities to market movements would likely be mitigated by the ample and prolonged monetary accommodation; at the same time, structural interventions should aim to bring the economy back to a balanced path to growth.

The capacity of the Italian economy to handle adverse shocks is supported, also in the current phase, by various strong points, including the low level of indebtedness of the private sector (see Section 1.2), the high average residual maturity of government securities (see Section 2.1), the progress made by banks in terms of asset quality, capital adequacy and liquidity (see Section 2.2), the low liquidity risks in the asset management industry (see Section 2.3), and the improved net international investment position (see Table A1 in Selected Statistics).

Real estate markets

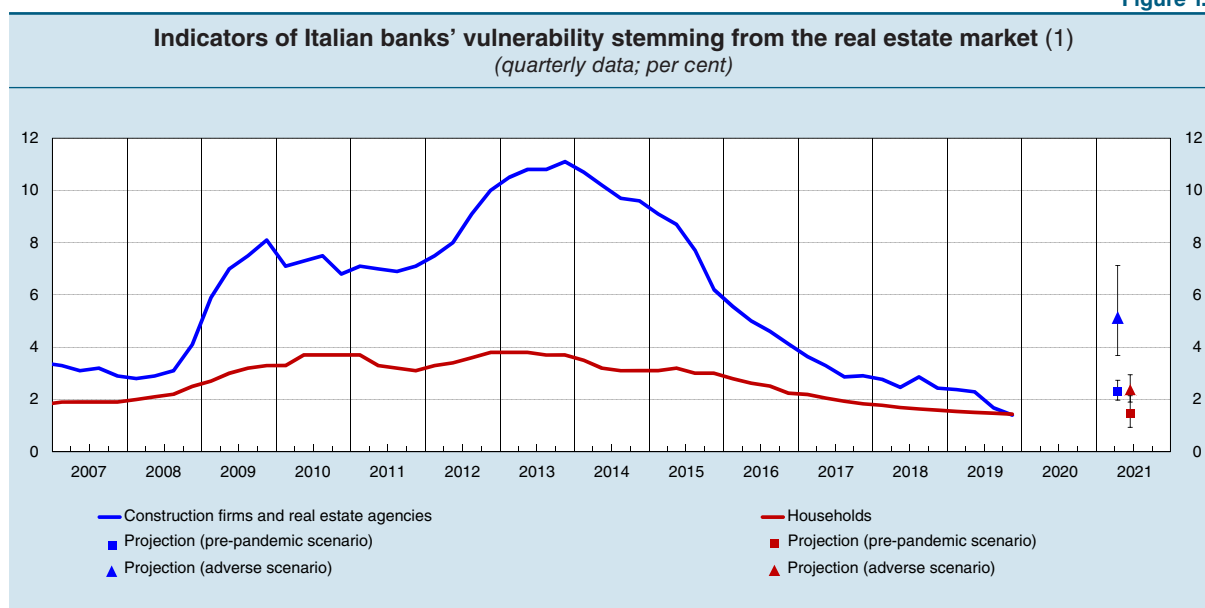
Prior to the spread of COVID-19, the real estate cycle in Europe was still in an expansionary phase. The increase in prices in the residential market was particularly strong in Germany and Spain (Figure 1.6). Prices, though slowing, were continuing to rise in the non-residential sector

Figure 1.6



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. – (3) Right-hand scale. – (4) The indicator, which is still being tested, uses data drawn from transactions already concluded on the market.

Figure 1.7



(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 2nd quarter of 2021, the graph shows the median and the 10th and 90th percentiles for the two scenarios considered: situation prior to the containment measures (pre-pandemic) and adverse scenario. For the methodology, see F. Ciocchetta, W. Cornacchia, R. Felici and M. Loberto, 'Assessing financial stability risks arising 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), 393, 2019.

as well. It is likely that the scenario will change radically over the next few months. In the short term, conditions in the real estate market could worsen more rapidly than during the 2012 crisis. In the longer term, once the effects of the temporary measures to contain the spread of the disease have been reabsorbed, the cyclical conditions will depend on the consequences of the pandemic on households' income.

In Italy, the data on online property listings show that the number of dwellings up for sale and the searches by potential buyers have decreased sharply since mid-March. This trend is particularly marked in the North, the only area where prices were rising moderately at the end of last year. According to our estimates, house prices will come down significantly during the course of this year.

Based on our assessments, in the event of an adverse scenario,³ the ratio of the flow of new non-performing loans relating to loans granted to firms in the real estate sector to the capital of Italian banks is expected to rise to 5.2 per cent, which is high but considerably lower than the peak recorded following the euro-area sovereign debt crisis (Figure 1.7). The estimates are, however, subject to great uncertainty and the probability that the ratio will return to levels close to those recorded after the 2008 financial crisis cannot be ignored. The increase in non-performing loans is expected to be more limited for loans to households, thanks to the sector's greater financial soundness.

³ The scenario considered assumes a negative shock in the main determinants of banks' vulnerability linked to the real estate sector of a magnitude similar to that recorded during or after the sovereign debt crisis in Italy. Specifically, it assumes a significant reduction in loans to firms and households, a sustained fall in property prices and in the number of house sales, a considerable fall in disposable income and industrial production, and a sharp increase in unemployment.

1.2 HOUSEHOLDS AND FIRMS

The sudden reduction in disposable income caused by the measures adopted to contain the COVID-19 pandemic, together with the decrease in wealth stemming from the fall in the prices of financial assets, is being reflected in a worsening of households' financial conditions. For many of them, this could translate into debt repayment difficulties. The sharp contraction in sales, which is not matched by a comparable reduction in costs owing to the inelasticity of some expenses, is causing a rapid deterioration in firms' liquidity. The risks to financial stability are being mitigated by the support measures passed by the Government and by the strengthening of households' budgets and firms' balance sheets carried out in recent years.

By international standards, Italian households continue to display low levels of indebtedness (see Table A1 in Selected Statistics), mainly owing to the low volume of mortgage loans for house purchase. The debt is concentrated among higher-income households, which, at least prior to the crisis, had a greater ability to bear its cost. In recent years, the number of households unable to repay their debts with credit institutions had decreased. On the eve of the pandemic, the corporate sector's financial conditions were much more solid overall than in the period prior to the global financial crisis: leverage had decreased, profitability margins had reached a historically high level, and liquidity holdings were large.

Households

In the first quarter of this year, the sharp fluctuations in the yields on government securities and the fall in share and bond prices led to a reduction in the financial wealth of Italian households of more than €140 billion, equal to 3.2 per cent of its value at the end of 2019. About half of households' financial portfolio is allocated to instruments whose value is exposed to market tensions (public and private sector bonds, shares, investment fund units, pension funds and insurance products⁴). Investments in these assets are high, especially for households whose income is above the median (for which they account for almost 50 per cent of financial wealth), but they are not insignificant for the rest of households (for whom they account for about 25 per cent of the portfolio).

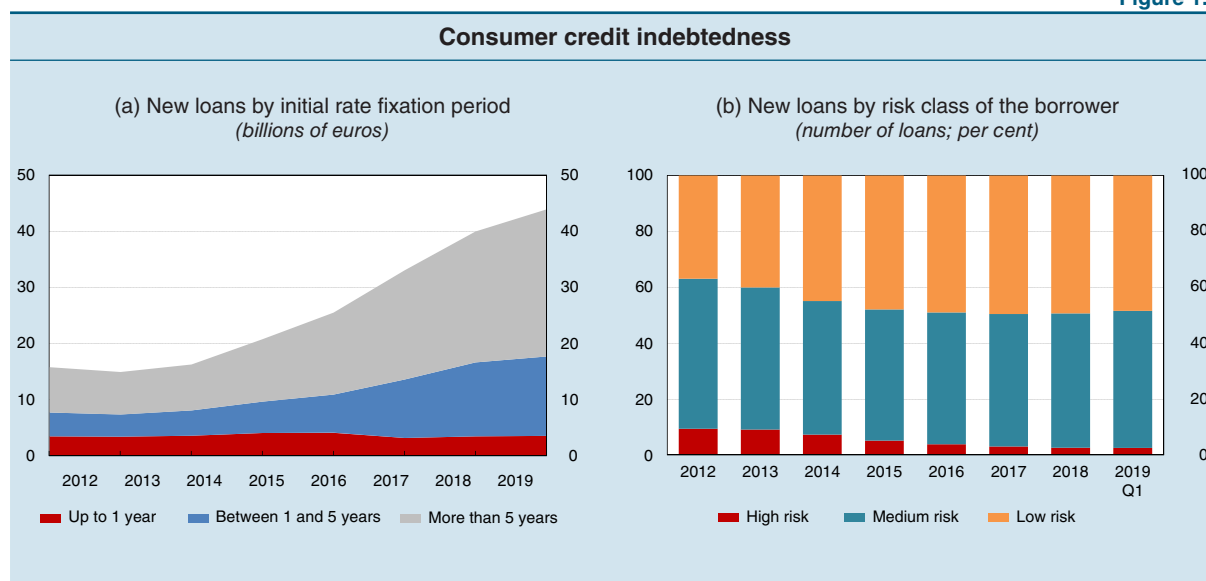
In the coming months, the financial wealth of lower-income households (those with an income below the median) could diminish considerably owing to the need to sell assets in order to make up for the sharp drop in income. About two thirds of these households hold less than €5,000 in financial assets.

The rate of growth of indebtedness with banks, which was close to a yearly 3 per cent in February, is set to decrease owing to the pandemic. The impact on credit of the reduction in the number of property sales (see Section 1.1) and of the contraction in spending on durable consumer goods is expected to more than offset both the decrease in loan repayments connected with the debt moratorium on mortgage loans and the possible increase in the demand for liquidity arising from the need to smooth the impact of the fall in income on consumption.

The cost of debt has continued to fall in recent months, reaching a minimum of 2.9 per cent in February. The risk that protracted financial tensions could be reflected in a rise in the interest rates on loans to households has been mitigated by the monetary policy measures adopted by the Eurosystem (see the box 'The monetary policy measures adopted by the ECB in March 2020', in *Economic Bulletin*, 2, 2020) and by the composition of the loans outstanding by type of interest

⁴ Excluding about two thirds of the life sector reserves relating to capital-guaranteed products, as these are not affected by price changes.

Figure 1.8



Sources: For panel (a), Bank of Italy. For panel (b), CRIF SpA.

rate. At the end of 2019, the share of fixed-rate mortgage loans accounted for 46 per cent of the stock of loans (compared with 25 per cent at the beginning of 2015); those with a variable rate are indexed to benchmark rates that are still negative.⁵ In the last five years, the growth in consumer credit has also been mainly concentrated among loans with a fixed rate for at least five years (Figure 1.8.a).

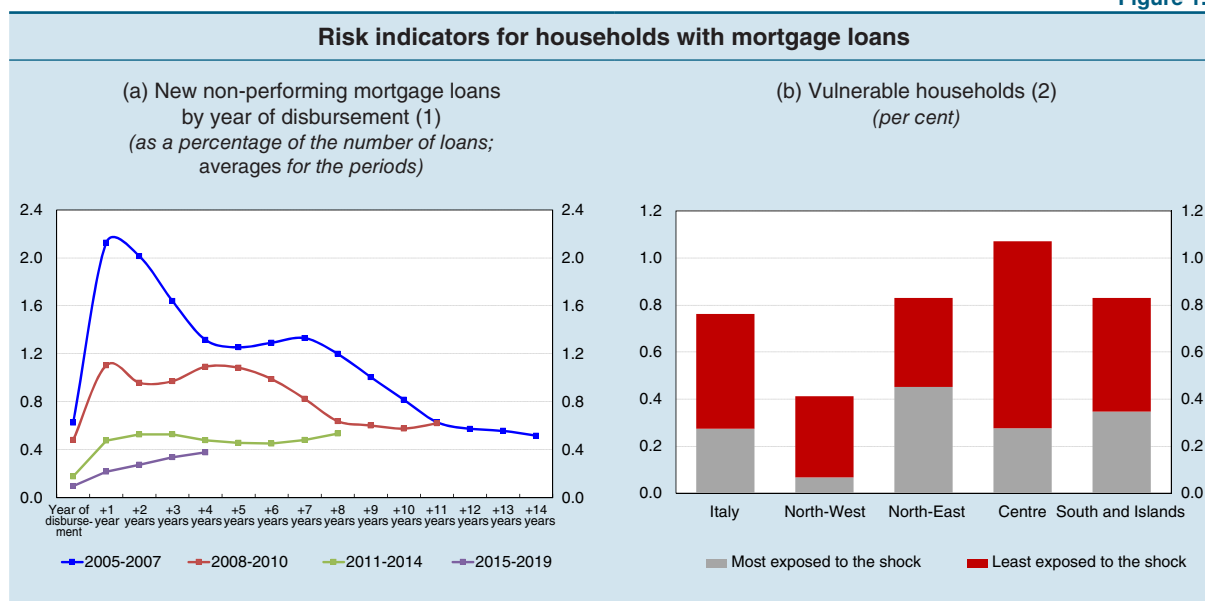
At the end of 2019, the yearly non-performing loan rate on credit granted by credit institutions to households was stable at 1 per cent, historically a very low level. In the coming months, the sustainability of the debt will be facilitated by the low interest rates and banks' selectivity in granting loans after the sovereign debt crisis. Indeed, the share of new consumer credit loans granted to borrowers classified as high-risk⁶ fell to 2 per cent in 2019, from 9 per cent in 2012; the share of low-risk loans rose by 12 percentage points, to 48 per cent (Figure 1.8.b). The ratio of new non-performing loans to total loans granted, by loan age, is lower for the period 2015-19 than for the previous periods (Figure 1.9.a). Overall, the debt was concentrated among the households that, at least prior to the crisis, had a greater ability to bear its cost: almost three quarters of total loans were taken out by households with incomes above the median.

A share of indebted households, however, is still financially vulnerable. According to the latest data available from Eurostat's European Union statistics on income and living conditions (EU-SILC) referring to 2018, Italian households with a residential mortgage loan deemed vulnerable (i.e. those with an income below the median and a mortgage loan instalment exceeding 30 per cent of their income) number around 200,000, or 0.8 per cent of total households (7.5 per cent as a share of indebted households; Figure 1.9.b). The difficulties appear less widespread compared with those recorded in 2007, on the eve of the global financial crisis, when the share of

⁵ The three-month Euribor was equal to -0.4 per cent on average in March.

⁶ Risk class assigned to the borrower in the EURISC credit reporting system maintained by CRIF SpA. The classification of customers into low, medium and high risk classes is obtained using statistical and quantitative methodologies (credit scoring) that provide a representation, in predictive or probabilistic terms, of the risk, reliability or timeliness profile of a given customer's payments. Credit scoring is used by financial intermediaries to evaluate loan applications.

Figure 1.9



Sources: For panel (a), Central Credit Register. For panel (b), based on EU-SILC data.

(1) Consumer households. By breaking down the mortgage loans by year of disbursement (cohort), the non-performing loan curves show, as an average for the period, the number of loans that are becoming non-performing, as a percentage of the total in that cohort. The calculation only considers non-performing loans that have remained so for at least three consecutive half-year periods. The cohorts only take into account new loans and do not include those arising from subrogation or renegotiation. – (2) Vulnerable indebted households with a residential mortgage loan, as a share of total households. Vulnerable households are defined as those whose income is below the median and whose debt-service ratio is more than 30 per cent of their disposable income. Owing to how the survey is carried out, the data on income refer to the year prior to that of the survey. The vulnerable households 'most exposed to the shock' are those in which the head of households is self-employed or a payroll employee with a fixed-term contract. The households 'least exposed to shock' are all those not included in the first category.

households with a mortgage loan that were classified as vulnerable was about twice as high. More than one third of vulnerable households are particularly exposed to the impact of the current crisis owing to the higher volatility of the labour income of the head of household (for those who are self-employed or fixed-term payroll employees).

The debt moratorium,⁷ the temporary income-support schemes for self-employed workers or seasonal employees, the freezing of layoffs and the expansion of the scope of wage supplementation, all provided for by the legislation passed by the Government over the last two months, contribute to supporting households' ability to meet their financial commitments (see the box 'The measures adopted to deal with the public health emergency in Italy' in *Economic Bulletin*, 2, 2020).

⁷ To deal with the difficulties that households may have in repaying mortgage loan instalments, the Government has bolstered the Solidarity Fund for loans for the purchase of a primary residence by: (a) increasing its capital to €400 million (from just over €20 million); (b) raising to 50 per cent the share of interest accrued on the outstanding debt that may be reimbursed; and (c) expanding eligibility to include payroll employees whose working hours were reduced by at least one fifth or who were placed on temporary leave as well as, for a period of nine months starting from 17 March 2020, self-employed workers and professionals who declared a reduction in their business turnover of more than 33 per cent as a consequence of the measures put in place to contain the spread of the disease. Moreover, income caps were lifted and the exclusion of loans that have been in repayment for less than one year was removed. The suspension of the payment of mortgage loan instalments may be granted for no more than 18 months; its duration is proportional to that of the period of temporary leave or reduced working hours.

According to the Bank of Italy's microsimulation model,⁸ for every 5 per cent reduction in nominal income, the share of debt held by vulnerable households, estimated at 12 per cent of total debt in 2019, would increase by between 0.7 and 0.9 percentage points at the end of 2020.

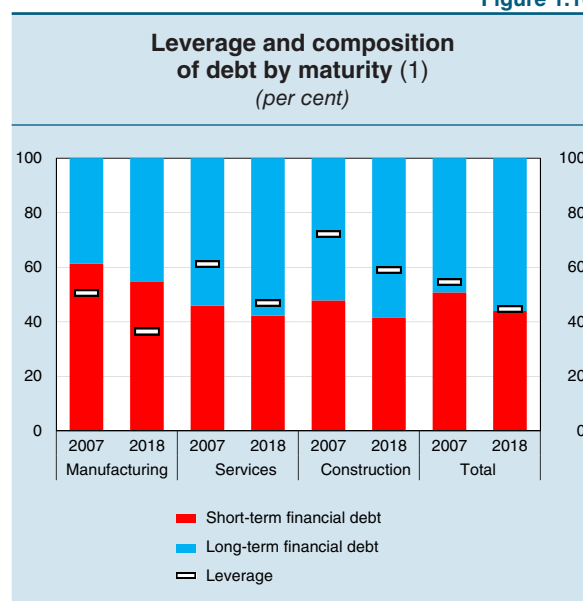
Based on our estimates, the contraction in household nominal income needed for households' repayment difficulties to return, at the end of 2020, to a level comparable with the peak recorded in 2008 (assuming interest rates and indebtedness in 2020 to be unchanged compared with 2019) would be of almost 50 per cent, or about ten times greater than the sharpest drop observed during the most acute phases of the global financial crisis and of the sovereign debt crisis.⁹ Indebted households' greater ability to withstand sharp drops in income can be attributed above all to the greater concentration of indebtedness among higher-income households and to the lower average cost of the debt.

Firms

The crisis has hit the production system hard at a time when a slowdown in economic activity was already under way. The contraction in revenue – in connection with the sizeable drop in demand and the marked reduction in economic activity – limits firms' capability to bear expenses and weakens their ability to repay loans. Access to external capital is made difficult by the increased risk and by the tensions in the financial markets.

However, firms are facing the current economic situation from a more balanced financial position overall than they had on the eve of the double-dip recession of 2008-13. Leverage (calculated as the ratio of financial debt to the sum of financial debt and net equity) decreased by about 10 percentage points. The ratio of short-term debt to total financial debt declined by 7 points. The fall in overall indebtedness and the lengthening of maturities occurred across all economic sectors (Figure 1.10). At the end of last year, profitability was at historically high levels and liquid assets on balance sheets had peaked at 21 per cent of GDP. The sounder balance sheets and the low interest rates facilitated a reduction in the non-performing loan rate to 1.9 per cent at the end of 2019, a level below those observed in 2007 (2.6 per cent). The share of debt held by vulnerable firms¹⁰ was estimated at 28 per cent (compared with 44 per cent in 2007). Furthermore, firms' financial conditions will be supported by the measures introduced by the Government to contain costs, facilitate access to credit, and defer the repayment of loans.

Figure 1.10



Source: Cerved.

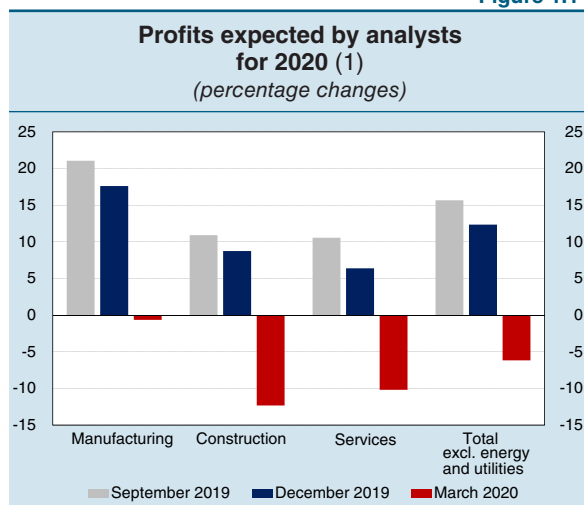
(1) Leverage is calculated as the ratio of financial debt to the sum of financial debt and net equity at book value. Short-term financial debt is that maturing before the end of the following financial year. The balance sheets for 2018 are the latest available.

⁸ For further details on the microsimulation model, see C.A. Attinà, F. Franceschi and V. Michelangeli, 'Modeling households' financial vulnerability with consumer credit and mortgage refinancing', Banca d'Italia, Questioni di Economia e Finanza (Occasional Papers), 531, 2019, also forthcoming in the *International Journal of Microsimulation*.

⁹ These estimates do not take account of any nonlinearities due to interaction with other variables.

¹⁰ Vulnerable firms are those whose gross operating income is negative or whose ratio of interest expense to gross operating income exceeds 50 per cent. The definition excludes firms with bad loans.

Figure 1.11



Source: Bloomberg.

(1) Changes in the index of profits expected by analysts for 2020. Based on a closed sample, as at March 2019, of 105 listed companies accounting for 95 per cent of the market capitalization of non-financial corporations.

How much profitability will fall in the coming months will depend on the duration of the pandemic and on the effectiveness of the measures taken to counter the crisis. Many firms will be able to recoup only in part the losses incurred in this period: in March, analysts' expectations for 2020 indicated an abrupt downward revision of earnings in all sectors (Figure 1.11). The findings of the Survey on Inflation and Growth Expectations conducted by the Bank of Italy indicate that about two thirds of firms expect a worsening in their financial conditions in the second quarter, mainly in connection with the fall in demand, both foreign and domestic (see 'Survey on Inflation and Growth Expectations', Banca d'Italia, Statistics Series, 14 April 2020).

Firms' indebtedness, which was still declining in February, could rise for firms that will be forced to borrow to meet their liquidity needs owing to a decline in revenue coupled with the existence of unavoidable costs. In 2018, the share of debt held by firms with a low degree of liquidity¹¹ (below the first quartile) had diminished compared with the peak recorded in 2011, to about 43 per cent (Table 1.1); the figure was higher among smaller firms and those in the real estate, agriculture, energy, and construction sectors. Our estimates indicate that, assuming full use of the available credit lines and taking account of the debt moratorium, firms' liquidity needs are expected to amount to about €50 billion at the end of July, most of which could be met by recourse to the additional measures passed by the Government (see the box 'The effects of the pandemic on firms' liquidity needs'). A prolonged economic downturn, in the absence of further public intervention, could increase the risk of a default for the firms that were to augment their debt excessively without recouping the turnover they had lost (see the box 'Public intervention in lending to firms').

¹¹ For the definition of degree of liquidity, see note (1) to Table 1.1.

Table 1.1

Share of financial debt held by firms, by degree of liquidity
(per cent; data at 31 December 2018)

	Degree of liquidity (1)				Total (2)
	First quartile	Second quartile	Third quartile	Fourth quartile	
Firm size (3) (4):					
Micro	55.2	27.3	13.3	4.3	14.1
Small	46.1	31.3	17.0	5.6	13.6
Medium	36.2	37.2	20.5	6.1	16.7
Large	40.4	31.8	25.4	2.3	55.6
Economic sector (4):					
Agriculture	48.5	33.6	15.9	2.0	1.5
Mining and quarrying	14.3	4.9	80.7	0.1	3.9
Manufacturing	35.1	35.9	23.7	5.3	25.5
Energy	47.8	33.8	17.0	1.4	10.0
Construction	47.1	28.6	21.6	2.7	7.3
Transport	42.3	38.1	16.4	3.2	8.8
Accommodation and food service activities	44.4	35.3	16.8	3.5	2.4
Entertainment	22.5	52.0	18.9	6.6	0.7
Real estate	59.0	27.2	11.1	2.8	10.2
Other services	44.4	31.5	20.0	4.2	29.7
Total	42.6	32.0	21.7	3.7	100.0

Sources: Bank of Italy and Cerved.

(1) The degree of liquidity is defined on the basis of the distribution of the ratio of liquid assets to total assets: the values of the three quartiles are 1.5, 7.3 and 22.1 per cent respectively. Liquidity is defined here as the sum of cash and deposits. Excludes firms with bad loans. – (2) The shares are calculated against the total financial debt of all firms. – (3) For the breakdown by firm size: 'micro' firms are those with fewer than 10 workers and a turnover (or total assets) not exceeding €2 million; 'small' firms are those with fewer than 50 workers and a turnover (or total assets) not exceeding €10 million; 'medium' firms are those with fewer than 250 workers and a turnover (or total assets) not exceeding €50 million (€43 million); 'large' firms are all the remaining firms. – (4) The figures reported for the quartiles indicate the share in the financial debt of each category of firms.

THE EFFECTS OF THE PANDEMIC ON FIRMS' LIQUIDITY NEEDS¹

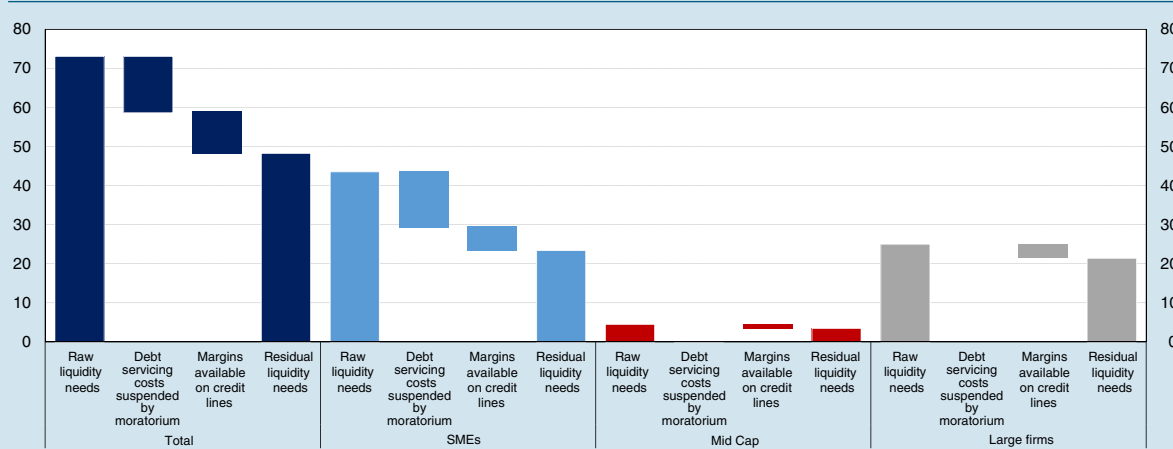
Many firms are being affected by the closure of production, the fall in domestic and foreign demand and the difficulties in procuring goods and services. Despite the contraction in revenue, some payments – such as rents, licences, maintenance and part of labour costs – cannot be reduced to the same extent. If the resulting need for liquidity is not met, it could lead to a solvency crisis in the production system, making the recession triggered by the pandemic more serious and prolonged.

Cerved Group recently produced projections on turnover for more than 200 sectors of economic activity.² Based on these projections, an estimate has been made of the liquidity shortages of Italian firms, making some assumptions on the evolution in spending on purchases of intermediate goods and services, on labour costs and on interest expense. Specifically, it is assumed that:

- spending on purchases of intermediate goods and services has an elasticity of 0.5 with respect to turnover; for every percentage point of reduction in turnover, this spending would decrease by half a percentage point;³
- the elasticity of labour costs to sales, equal to 0.6, is high compared with the past as a result of the expansion in wage supplementation provided for by Decree Law 18/2020;⁴

Figure A

Estimate of firms' liquidity needs in the period March-July 2020 (1)
(billions of euros)



(1) The data include, among the SMEs, an estimate of the liquidity needs of the firms not included in the Cerved survey; MidCaps are firms other than SMEs with up to 499 workers. The raw liquidity needs are calculated by only taking account of liquid assets on balance sheets. The bars referring to the item 'debt servicing costs suspended by moratorium' indicate the amount of raw liquidity needs that could be covered by firms by taking advantage of the possibility of suspending debt servicing costs introduced by Decree Law 18/2020; the bars referring to the item 'margins available on credit lines' indicate the amount of raw liquidity needs that could be covered using the margins available on current account overdrafts.

¹ By Massimiliano Stacchini.

² Cerved Group, *Cerved Industry Forecast. L'impatto del COVID-19 sui settori e sul territorio*, March 2020.

³ In a similar exercise, Schivardi assumes an analogous elasticity (see F. Schivardi 'Come evitare il contagio finanziario delle imprese', 'lavoce.info', 24 March 2020).

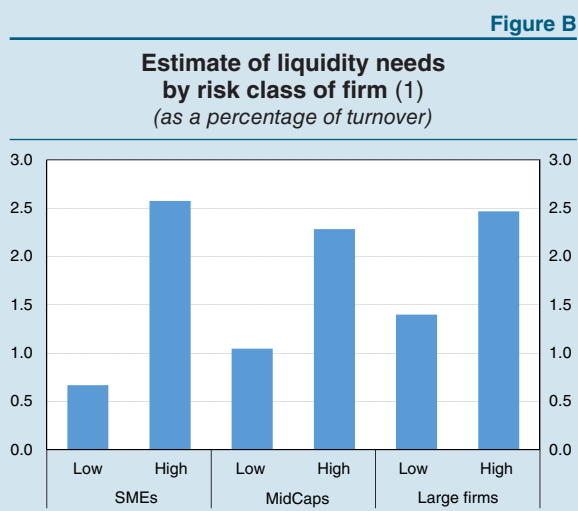
⁴ For every percentage point of reduction in turnover, a decrease of 0.6 percentage points in labour costs is assumed, around double what would be expected under 'normal' circumstances according to the estimates provided in F. Schivardi (2020), op.cit.

- c) expenditure on interest and on the repayment of loans and of instalments due up until September is nil for firms that can benefit from the debt moratorium envisaged by this decree.⁵

The analysis was applied to a sample of about 700,000 limited companies available in Cerved Group's database; the results are adjusted to the universe of firms to take account of those not found in the database, such as partnerships and sole proprietorships.⁶

According to our estimates, between March and July,⁷ liquidity needs of around €73 billion will accumulate, assuming that firms can only have recourse to the liquid assets on their balance sheets. Liquidity needs will fall to around €59 billion, taking account of the debt moratorium for SMEs, and to just below €50 billion, if firms make full use of the margins available on credit lines (Figure A). Among limited companies, the liquidity shortfall is expected to affect around 130,000 firms; as a percentage of turnover, it will be higher for firms that were more financially fragile before the crisis and for firms other than SMEs that are not eligible for the debt moratorium (Figure B).

The measures introduced by the Government with Decree Law 23/2020, including the opportunity to access new state-backed loans via the Central Guarantee Fund or SACE,⁸ would enable more than 90 per cent of firms to cover their residual liquidity needs. The remaining deficit of about €10 billion is mainly attributable to firms that are not eligible for state guarantees because, at the beginning of 2020, they had debts classified as non-performing.



(1) Residual liquidity needs as a percentage of turnover: averages weighted based on turnover. Residual liquidity needs are calculated assuming the full use of margins available on credit lines and the possibility of suspending debt servicing costs introduced by the moratorium. The estimate is based on the individual data of companies for which information is available in the Cerved Group's database. Attribution of firms to the risk groups is based on Cerved's CeBi-Score4 indicator and refers to the 2018 balance sheet (latest available figure). Low (high) risk firms have a score ranging from 1 to 4 (5 to 10). MidCaps are firms other than SMEs with up to 499 workers.

⁵ The debt moratorium introduced by Decree Law 18/2020 targets small and medium-sized enterprises (SMEs) that had no non-performing loans when the measure was published. The decree refers to the definition of SMEs in the Commission Recommendation (CE/2003/361) that includes firms that employ fewer than 250 workers and with a turnover of less than €50 million or total assets of less than €43 million. Self-employed persons, family businesses, partnerships and other associations and other entities regularly engaged in an economic activity are all considered as firms.

⁶ The limited companies in Cerved Group's database account for about 75 per cent of firms' overall turnover.

⁷ The analysis refers to the month of July because the scenarios for Italy's GDP growth, which include a strongly negative growth in the first half of the year, point to an upturn in the second half of the year and a marked recovery in economic activity in 2021 (see *Economic Bulletin*, 2, 2020).

⁸ SACE is a limited company, specialized in supporting Italy's exports and the internationalization of Italian firms.

PUBLIC INTERVENTION IN LENDING TO FIRMS¹

Starting in March, the Government has adopted a wide-ranging package of measures to limit the risk that the liquidity tensions due to the abrupt fall in production or to a tightening in credit

¹ By Paolo Finaldi Russo.

supply standards translate into protracted business crises. The measures regarding credit operate in a two-way direction, by reducing the flow of payments towards the banking system and by facilitating recourse to new borrowing.

With respect to the first point, Decree Law 18/2020 has introduced a debt moratorium for small and medium-sized enterprises (SMEs)² that had no debts classified as non-performing at 17 March 2020, the date on which the decree came into force. These firms are eligible for: (a) the deferment until 30 September of loans maturing in the coming months; (b) the suspension, for the same period, of mortgage loan instalments and lease payments; (c) the freezing until 30 September of the existing available uncommitted credit facilities (current account overdrafts and loans granted against advances on receivables). The volume of the loans and instalments maturing until 30 September is estimated at about €60 billion. Removing the possibility for banks to reduce the uncommitted credit facilities extended before the pandemic could enable SMEs to expand, by more than €50 billion, their use of the available margins on the credit lines. In 2009, the peak year of the global financial crisis, the fall in lending granted by credit institutions through current account overdrafts was about €13 billion (-5.7 per cent on an annual basis).

Credit institutions, on the other hand, benefit from a subsidiary state-backed guarantee equal to 33 per cent of the amounts for which the debt moratorium³ is in place, and are not required to set aside additional provisions for these operations in the immediate future. Considering that the average loss on bad loans to firms is equal to about 70 per cent of the nominal amount, the public guarantee scheme would permit a reduction in banks' expected losses to less than 40 per cent.

To facilitate firms' access to new loans, Decree Law 23/2020 has expanded significantly the state-backed demand guarantees that can be provided until the end of the year. For SMEs, the package has mainly made use of the Central Guarantee Fund, and has introduced the following changes to its operations: (a) eligibility of firms with up to 500 workers and of those with less balanced financial conditions;⁴ (b) elimination of the creditworthiness assessment by the Fund; (c) 90 per cent coverage for all loans with pre-set characteristics in terms of maturity and maximum amount of the loan; (d) 100 per cent coverage for loans of less than €800,000, provided certain terms and conditions in the contract are satisfied; (e) automatic granting (i.e. without prior authorization on the part of the Fund) of loans of less of €25,000, fully covered by the state-backed guarantee. The additional sums allocated to the Fund for 2020 (just over €1.7 billion), together with the resources already available, would make it possible to guarantee a volume of new loans significantly higher than that provided in 2019 (€19.4 billion).

For large firms and SMEs that have exhausted their ability to access the Central Guarantee Fund,⁵ Decree Law 23/2020 assigned to SACE, a company which until now has specialized in supporting Italy's exports and the internationalization of its national production system, the task of providing

² The decree refers to the definition of SMEs provided in Recommendation 2003/361/EC, which includes firms with fewer than 250 employees and an annual turnover or annual balance sheet total not exceeding €50 million and €43 million respectively. The definition of firms includes self-employed workers, family businesses, partnerships and associations or other entities regularly engaged in economic activities.

³ The subsidiary guarantee provided under the Central Guarantee Fund for SMEs is not a demand guarantee and, therefore, does not permit a reduction in capital absorption.

⁴ The firms eligible to access the Central Guarantee Fund are those with debts classified as non-performing (31 January 2020) and those that in 2020 were admitted to a judicial composition with creditors as a going concern, signed restructuring agreements or submitted a recovery plan. Firms holding bad loans are in any case excluded.

⁵ Decree Law 18/2020 raised the maximum amount of the guarantees that can be provided by the Fund to individual firms from €2.5 million to €5 million.

public guarantees for loans with a maturity no longer than six years, with coverage percentages that decrease from 90 to 70 cent as firm size increases. Despite the significant amounts involved regarding the loans granted to large firms, creditworthiness assessments play a very limited role. SACE will be able to provide such guarantees for up to a total of €200 billion, of which €30 billion reserved for SMEs.⁶ It is estimated that for large firms the funds potentially available constitute a significant amount overall, about 10 per cent higher than the stock of performing loans outstanding at the end of January 2020 (€180 billion).

Overall, the action taken by the Government can contribute to the effective containment of firms' liquidity crisis. In particular, the automatic mechanism introduced to limit cash outflows and to obtain new loans for small amounts go in this direction. In some cases, however, the time frame necessary for the measures to become fully operational is still uncertain. The Bank of Italy has recently recommended that banks intensify their efforts to minimize difficulties for customers and help them access the support measures, so that they can have their full expected effect.⁷

In the long term, the package of measures adopted by the Government could fuel risks connected with the increase in firms' debt and opportunistic behaviour on the part of lenders. In most cases, the measures do not rule out explicitly the possibility of replacing (unsecured) outstanding loans with new loans guaranteed by SACE or by the Central Guarantee Fund;⁸ while there are benefits connected with the refinancing of maturing loans, this would increase the incentive for credit institutions to acquire a state-backed guarantee on loans granted in the past to borrowers who were financially vulnerable even before the COVID-19 crisis. These provisions, together with the elimination of creditworthiness assessments of borrowers by the entities providing the state-backed guarantees, could translate into an increase in the riskiness of the guaranteed loans that is not tied exclusively to the unfavourable economic developments. Moreover, as the state-backed loans near maturity, it could be more advantageous for credit institutions to enforce the guarantees on loans granted to firms still in difficulty instead of renewing those loans, in order to prolong the financial support they are receiving.

These risks could be mitigated by new economic policy measures intended to restore normal conditions in the credit market, following the emergency provisions adopted in recent weeks. To this end, for example, it could be useful to reduce gradually the coverage rates of state-backed guarantees as they are about to expire, to create a public financial vehicle for restructuring the debts of firms that are struggling to overcome the crisis, and to introduce tax incentives for the recapitalization of firms.⁹

⁶ Moreover, Decree Law 23/2020 gives SACE a permanent authorization to provide guarantees at market conditions relating to lending to firms headquartered in Italy. This part of SACE's business will be regulated by an interministerial decree.

⁷ Banca d'Italia, 'Recommendation on issues relating to the economic support measures drawn up by the Government for the emergency', 10 April 2020.

⁸ For loans for small amounts, if the parties agree, the guarantee can be provided on renegotiated loans whose amount is reduced.

⁹ G. Gobbi, F. Palazzo and A. Segura, 'Financial support measures for firms post COVID-19 and their medium-term implications', COVID-19 Notes, Banca d'Italia, 15 April 2020; also published as 'Unintended effects of loan guarantees during the Covid-19 crisis' on VoxEU.org.

The cost of bank lending, in large part at a variable rate, reached a low of 2 per cent in February. The risk that a drawing out of the financial tensions in the markets could, in the short term, lead to an increase in the cost of debt, is low, owing to both the indexation to benchmark rates that remain negative (the three-month Euribor was equal to -0.4 per cent on average in March) and to the monetary policy measures adopted by the Eurosystem.

Access conditions to the bond market, which were favourable over the course of 2019, deteriorated rapidly in the early months of this year owing to the worsening in the economic outlook and the heightened uncertainty perceived by investors. In the first quarter, bond placements, mainly issued by large firms, amounted to slightly more than €5 billion, about half the average for the previous three years in the corresponding quarter. Placement costs rose sharply in March: for fixed-rate bonds, yields were equal to 3.5 per cent, more than 200 basis points higher than the average for the previous two months. The rise in costs was especially sharp for issuers with low ratings, for which risk premiums had been very low in recent years (see Figure 2.7).

The intensity of the crisis underway will be reflected in a marked increase in firms' financial vulnerability. According to the Bank of Italy's microsimulation model,¹² for every 5 per cent reduction in nominal gross operating income, the share of debt held by vulnerable firms would be between 1.0 and 1.3 percentage points higher at the end of 2020.

However, based on our estimates, for a return to the peak of loan repayment difficulties recorded in 2008 – when debt at risk reached 49 per cent of total debt – gross operating income would have to contract by 55 per cent in 2020, assuming unchanged interest expenses and indebtedness.¹³ Such a fall in gross operating income would be about five times greater than the sharpest drop observed during the global financial crisis. The greater concentration of debt among the more solid firms is the main factor contributing to the increase in firms' resilience to significant profitability shocks.

¹² 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, 147-168, also published as 'Modelling Italian firms' financial vulnerability', Banca d'Italia, *Questioni di Economia e Finanza* (Occasional Papers), 293, 2015.

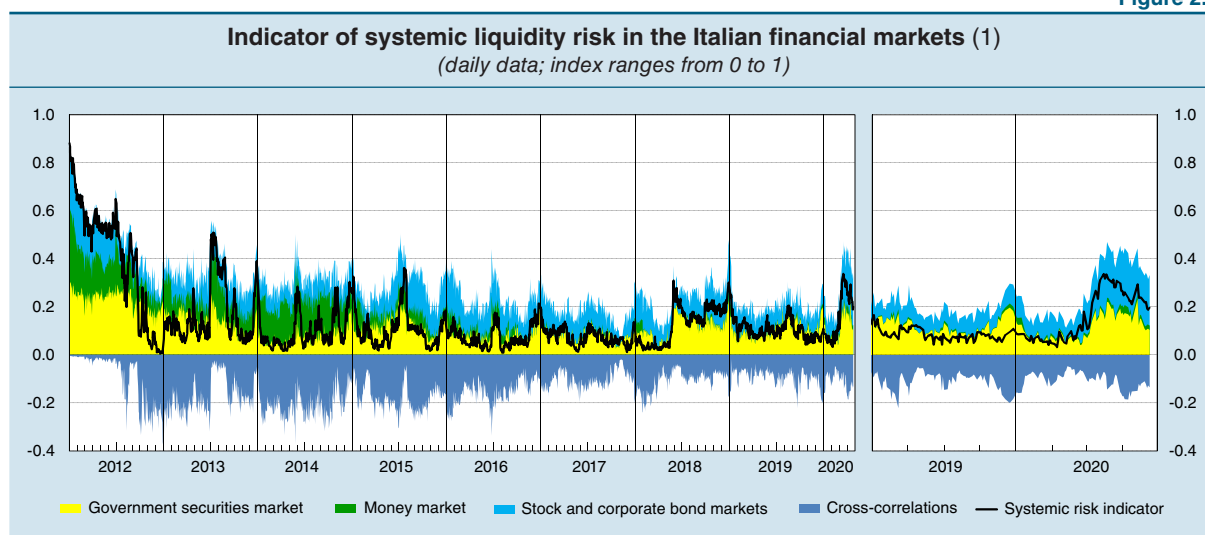
¹³ These estimates do not take account of any nonlinearities owing to the heterogeneity of profitability trends between firms.

2 FINANCIAL SYSTEM RISKS

2.1 THE MONEY AND FINANCIAL MARKETS

The COVID-19 pandemic has caused a marked deterioration in liquidity conditions on Italy's financial markets, partly mitigated by public and private sector bond purchases under the pandemic emergency purchase programme (PEPP) announced on 18 March (Figure 2.1).

Figure 2.1



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

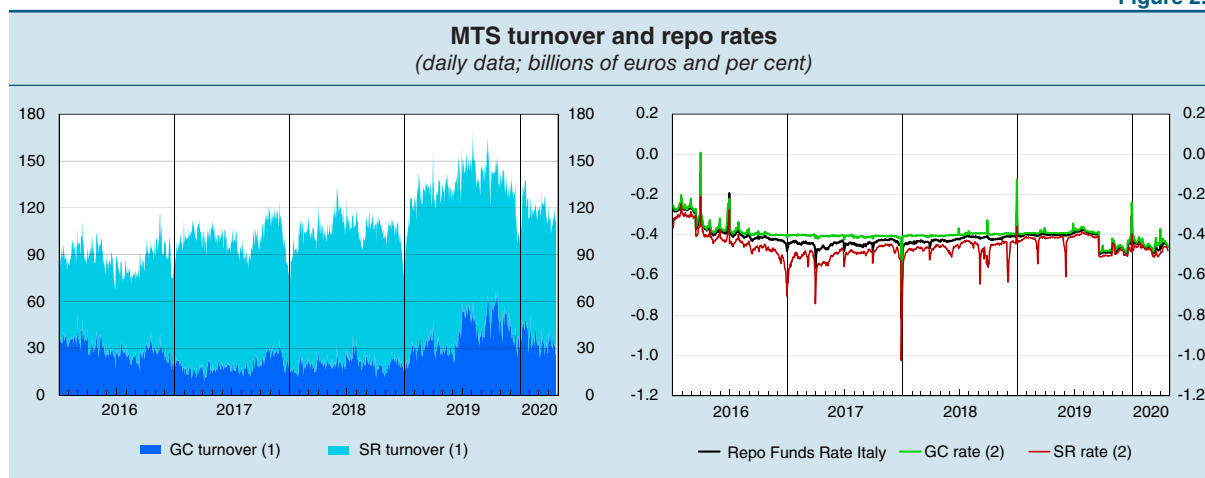
(1) The systemic risk indicator measures the combined risk in the money market, the secondary market for government securities, and the stock and corporate bond markets. The index range is from 0 (minimum risk) to 1 (maximum risk). The graph also shows the contributions to the systemic risk indicator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

In the money market, tensions on Italian government securities have had a limited impact on repo trading volumes, which remained at high levels, albeit below the peaks recorded in 2019 (Figure 2.2). The repo rate in the general collateral segment continued to be just above the deposit facility rate; the end-of-quarter increases and those recorded at times of high volatility on government securities were wholly reabsorbed.

From early March, liquidity conditions on the secondary market for Italian government securities deteriorated rapidly, partly owing to a large contraction in the activity of market makers: the bid-ask spread abruptly widened, the quantities quoted and volumes traded decreased (Figure 2.3.a); the market's ability to absorb high-value transactions worsened (Figure 2.3.b). Following the introduction of PEPP, liquidity conditions gradually improved; the volumes traded nonetheless remain low and intraday volatility is still high.

High price volatility makes it more onerous for market makers to manage portfolio securities and increases the risk perceived by investors, curtailing market trading. Sudden and deep price fluctuations

Figure 2.2



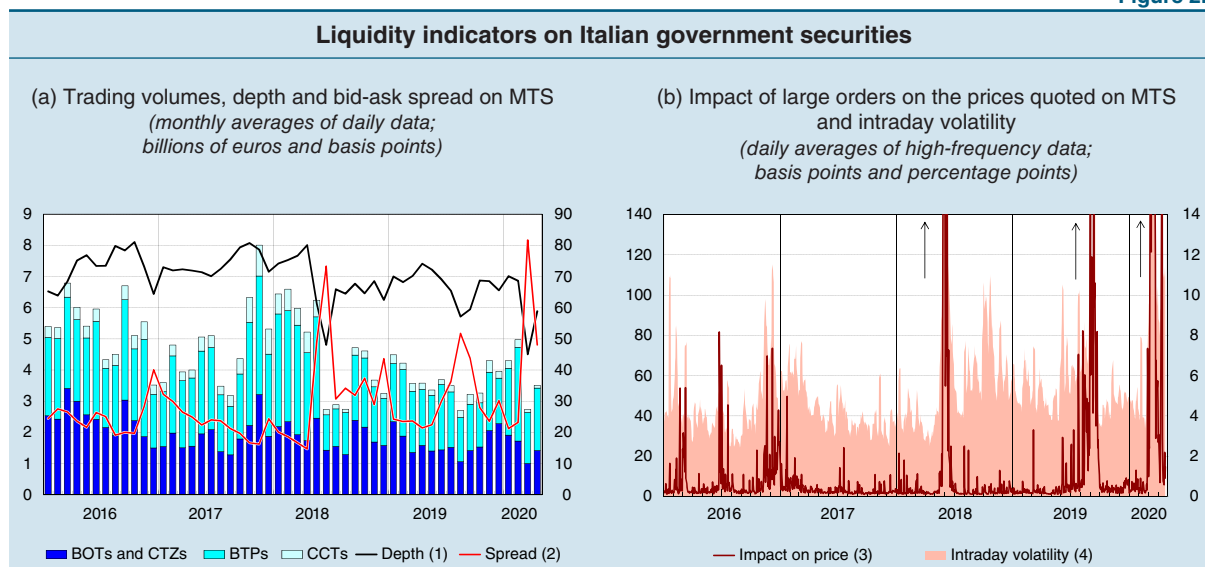
Sources: Based on data from MTS SpA and RepoFunds Rate.

(1) Daily turnover in the general collateral (GC) and special repo (SR) segments on the MTS market by contract settlement date. – (2) Calculated with reference to daily contracts for Italian government securities made on MTS Repo.

can accordingly have lasting effects on market liquidity. It is likely that, as happened in the past after bouts of financial stress, greater depth in the market and the narrowing of the bid-ask spread come about slowly and only feed through to trading at a later stage, both in terms of the volume of transactions and with respect to average contract size.

The issuance of government securities continued at a steady pace, despite the tensions on the secondary market; the bid-to-cover ratio in auctions stayed on average at levels close to those recorded at the start of the year. Interest rates on new issues rose on average by 45 basis points in the March auctions, turning positive for short-term maturities as well. The increase did not affect the average cost of the debt, which

Figure 2.3



Source: Based on MTS SpA data.

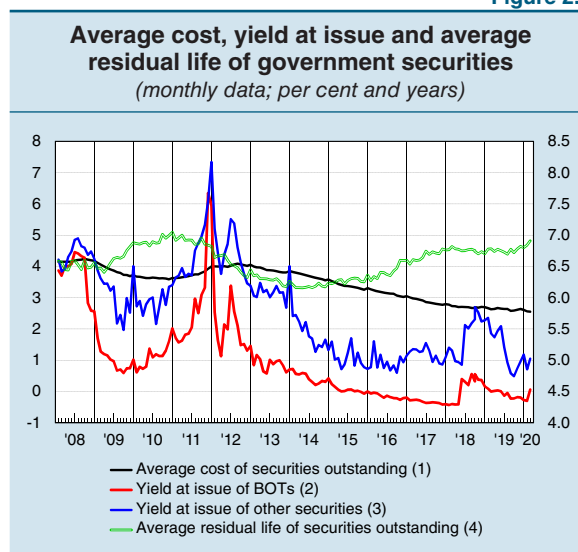
(1) Calculated as the average of the bid and ask quantities recorded during the entire trading day on BTPs listed on MTS. – (2) Measured as the simple average of the bid-ask spreads observed during the entire trading day for the BTPs quoted on MTS. Right-hand scale. – (3) The analysis refers to the 10-year 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 calculated at 5-minute intervals; 5-day moving average of annualized values. Right-hand scale.

held stable at 2.6 per cent (Figure 2.4), reflecting both the expiry of securities with higher yields and the long average residual life of the stock of securities outstanding (6.9 years at the end of March). Going forward, the average cost of the debt would rise only in the event of renewed sharp and persistent increases in yields at issue.

Since it was first announced, PEPP has favoured a sharp fall in the yield spreads of all the securities of euro-area countries with respect to Germany, including Italian government securities. The programme will facilitate the placement of the sovereign bonds needed to finance the public interventions in support of households and firms. At the end of 2019 the Bank of Italy already held around one fifth of the government securities issued.

The announcement of the new Eurosystem asset purchase programme has also contributed to a marked decline in the cost of options on government securities that protect against changes in the prices of the underlying securities measured by implied volatility, which had risen steeply, even in euro-area countries with high credit ratings (Figure 2.5.a). The difference between the relative price of options that protect against a fall in futures prices on ten-year BTPs compared with those that profit from a rise in it (as measured by the risk reversal index), instead remained at around the average levels recorded last year; this indicated that investors' expectations of a fall in the prices of Italian securities compared with those of an increase were broadly balanced. The comparable indicator for German government securities turned negative when tensions were

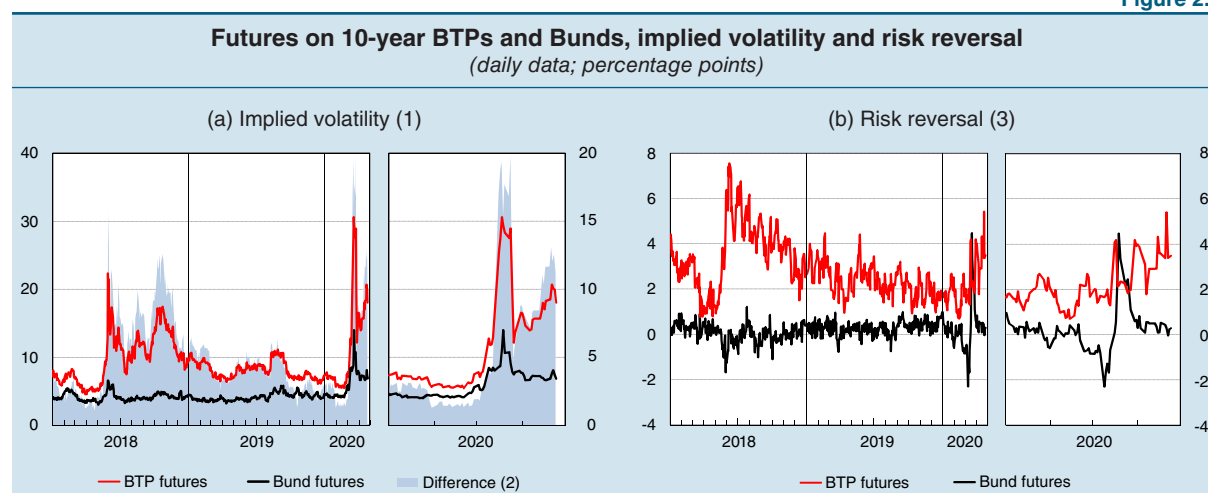
Figure 2.4



Sources: Based on Ministry of Economy and Finance and Bank of Italy data. Data at 31 March 2020.

(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 of the indexed securities placed during the month, by settlement date. — (4) End-of-period values weighted by the outstanding securities. Right-hand scale.

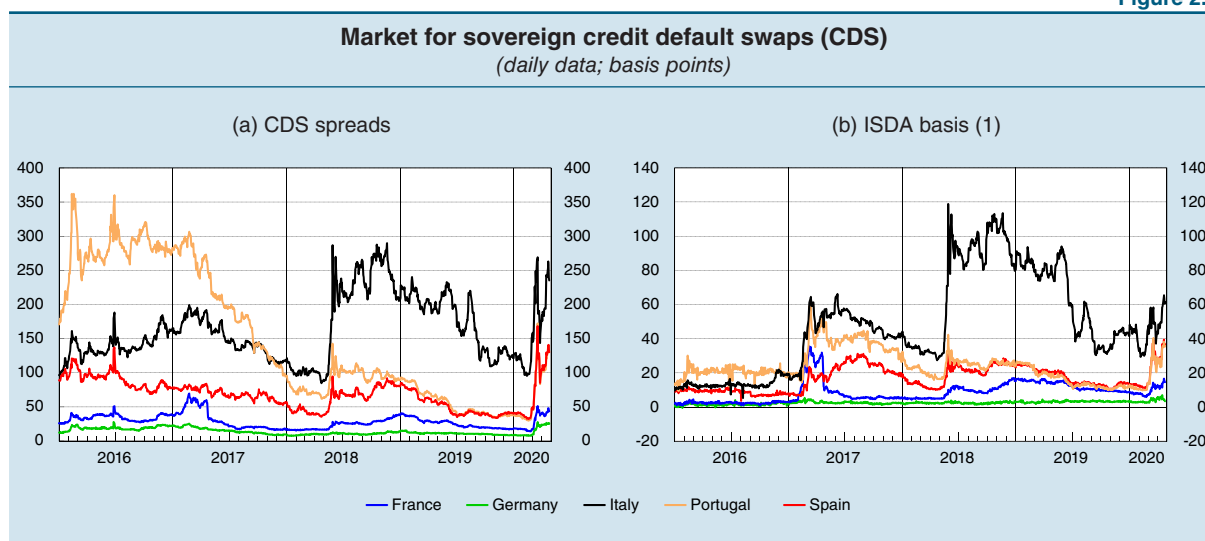
Figure 2.5



Source: Based on Bloomberg data.

(1) Implied volatility in the prices of at-the-money options on 10-year BTP and Bund futures with maturity at 30 days. — (2) Right-hand scale. — (3) Difference between the implied volatility of put and call option prices on active 10-year BTP and Bund futures with the same relative change in the strike price in relation to the underlying price (*moneyness*) and with the same residual maturity (1 month).

Figure 2.6



Source: Based on Bloomberg data.

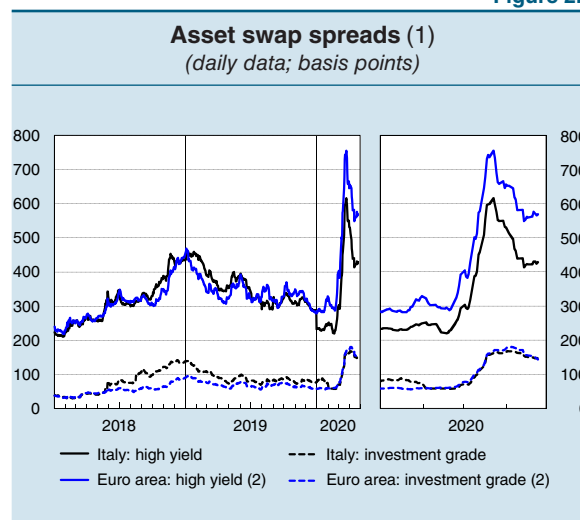
(1) The International Swaps and Derivatives Association (ISDA) is an organization of participants in the market for OTC derivatives. The ISDA basis measures the difference between CDS spreads on 5-year US dollar contracts under the 2014 and the 2003 ISDA Definitions.

running highest, signalling a prevalence of expectations of an appreciation of assets deemed to carry lower risk (Figure 2.5.b).

In the credit default swap (CDS) market, starting from the last week of February insolvency risk premiums rose for the government securities of all countries, especially for Italian, Portuguese and Spanish debt (Figure 2.6.a). The gap between the premium on CDS contracts that offer protection against the risk of redenomination of Italy's public debt and that on contracts with no such provision (ISDA basis) has widened, though to a much smaller degree when compared with previous episodes of tension on the financial markets (Figure 2.6.b).

Before the tensions began, risk premiums on private sector bonds in the euro area were at historically low levels (see *Financial Stability Report*, 2, 2019). The onset of the crisis sparked a broad-based and rapid repricing of risk by investors. The spread between corporate bond yields and the risk-free yields, approximated by the swap rates curve, has risen even if the Eurosystem's new asset purchase programme includes private sector securities. The increase was greater for firms with lower credit ratings (high yield, Figure 2.7) and mostly recorded by the sectors hardest hit by the contraction in demand sparked by the pandemic. The fall in the prices of corporate bonds was accentuated by thinner market liquidity: the volumes traded on the MOT diminished, bid-ask spreads widened, and the impact of high-value trades on the prices of securities became substantial again. The rise in the cost of financing could also have adverse effects on credit ratings, impairing firms' ability to access

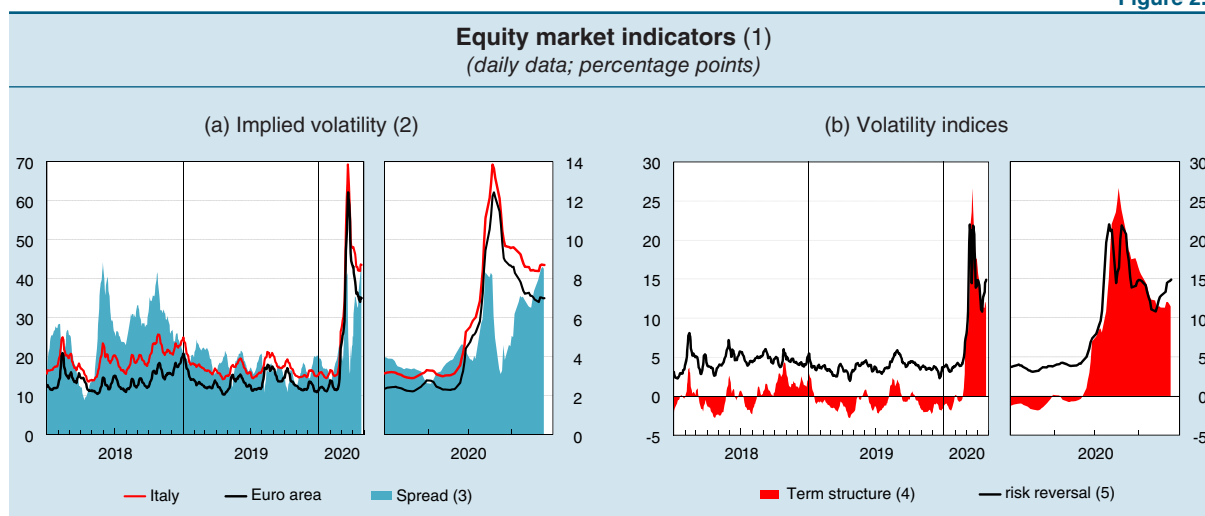
Figure 2.7



Source: Based on ICE Bank of America Merrill Lynch (BofAML) data.

(1) Asset swap spreads weighted by the market capitalization of individual securities issued by non-financial corporations. – (2) The BofAML indices for the euro area have been recalculated to exclude Italy.

Figure 2.8



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 on 2- and 12-month options on the Italian FTSE MIB index. – (5) Difference between the implied volatilities of 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 from a rise.

the market. Since early March, around 10 per cent of the securities issued by Italian firms have been downgraded, compared with 18 per cent in the other euro-area countries; the average rating is currently equal to BBB and BBB⁺.¹

Share prices in the euro area have suffered heavy losses across all sectors, accompanied by a significant increase in implied volatility (Figure 2.8.a). Both the cost of protection against sharp falls in share prices (risk reversal) and the difference between the volatility of two- and twelve-month options have increased; the two indicators reached exceptionally high levels (Figure 2.8.b), higher than those recorded during the financial crisis of 2008. To limit falls in share prices, Italy's Consob (the Companies and Stock Exchange Commission) introduced a three-month ban on holding net short positions on the entire share price list traded on Italy's regulated market;² it also called for greater transparency on investor holdings in Italian companies with a broad shareholder base listed on the stock exchange. Similar measures have been envisaged in other euro-area countries.³

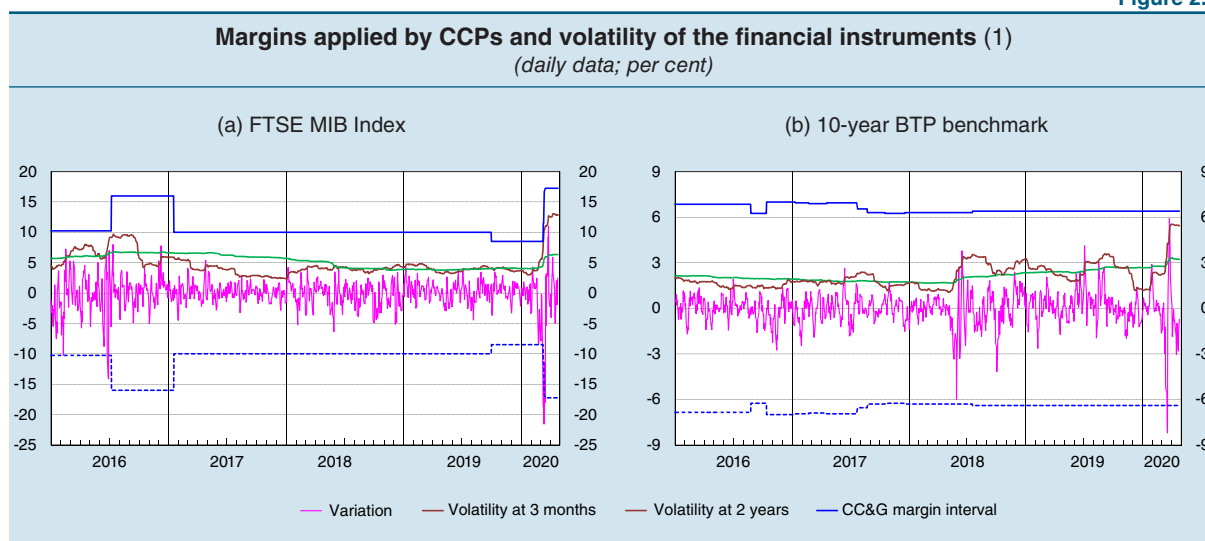
Given the heightened volatility in share prices, Cassa di Compensazione e Garanzia SpA (CC&G) increased its intraday margin requirements: on 18 March market operators paid in more than €2 billion in margins, compared with around €380 million daily in 2019. It also increased the initial margins requested for equity securities (Figure 2.9.a); these changes were introduced gradually to mitigate the effects on market prices.

¹ The data refer to the bonds included in the ICE Bank of America Merrill Lynch index.

² The net short position is calculated as the difference between the sales of a financial instrument and purchases of same, including the positions – on both the purchasing and selling markets – of financial derivative instruments. The ban on holding net short positions is intended to prevent bear positions that, in the event of a fall in financial asset prices, can confer an economic advantage.

³ Similar measures have been adopted by the competent supervisory authorities in Austria, Belgium, France, Greece and Spain. At EU level, the European Securities and Markets Authority (ESMA) has tightened the reporting obligations requested of holders of net short positions.

Figure 2.9



Sources: Based on data from Bloomberg, Reuters and CC&G.

(1) Variation in the price of the benchmark 10-year Italian government bonds (BTPs) over a 5-day horizon and in the price of futures on the FTSE MIB Index over a 3-day horizon. The volatility indicators are based on the value-at-risk (VaR) methodology and calculated with reference to a period of 3 months and 2 years with a confidence interval of 99 per cent. The margins for BTPs are those referring to the respective duration bucket. The broken lines, which are mirror images of the margins, indicate the adequacy of the margin requirements to cope with the negative price fluctuations actually recorded in the market.

In accordance with the French central counterparty, LCH SA, the margins on Italian government securities were not modified after the temporary peak in volatility in mid-March (Figure 2.9.b). CC&G, which has very prudent assessment criteria, increased the default fund in the bond segment.⁴

2.2 BANKS

The banking sector is exposed to the repercussions of the COVID-19 pandemic. The decline in economic activity reduces demand for financial services and it puts a strain on households and firms' ability to repay loans. Tensions on financial markets make wholesale funding and any raising of new capital more difficult and costly. The loss in value of portfolio assets squeezes capital.

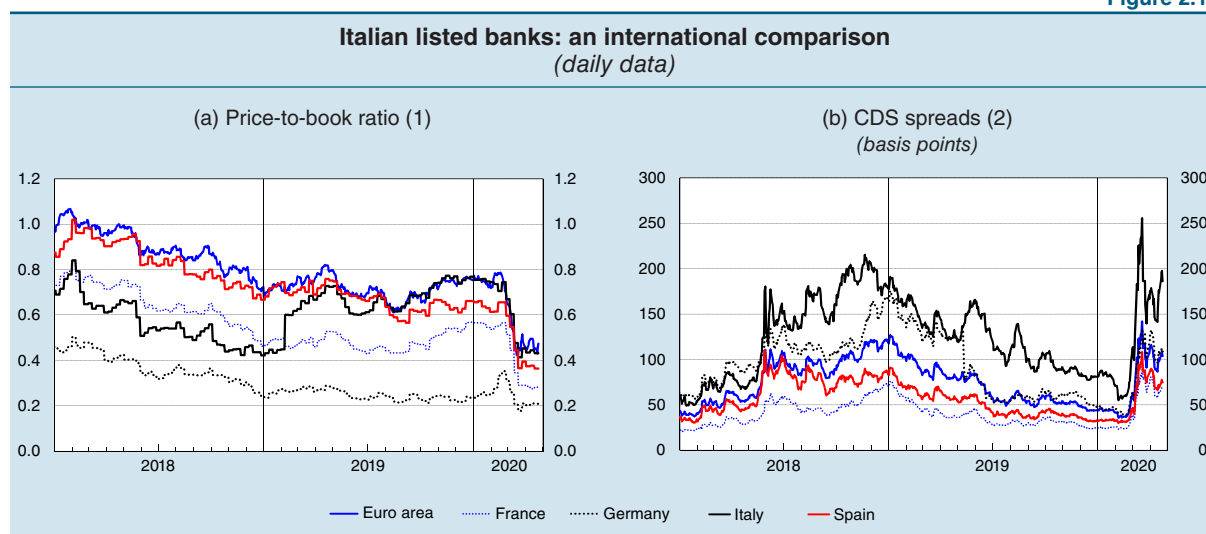
Italian banks are facing the new risks from an overall stronger position than they had at the start of the 2008 financial crisis. Between 2007 and 2019, the ratio between common equity tier 1 and risk-weighted assets (CET1 ratio) almost doubled, loans to households and firms are now funded entirely by deposits and there are no signs of lack of confidence in banks by depositors. Imbalances in balance sheets caused by the European sovereign debt crisis have largely been reabsorbed or curbed: the NPL ratio has fallen by two thirds compared with its 2015 peak. The impact of the loss in value of government securities on capital is mitigated by the fact that the share of securities measured at fair value has decreased in recent years. The measures taken by national and European authorities to counter the economic effects of the health emergency are crucial for the stability of Italian banks.

⁴ Default funds are mutual guarantee funds established through payments by direct participants to the central counterparties (CCPs). In the event of the default of one or more participants, the default funds are tapped into only after the initial margins are exhausted in order to cover any residual losses. The size of these funds is reviewed regularly on the basis of stress tests. In the case of CC&G, the default fund is calibrated by assessing the impact of the possible default of the four leading participants, compared with the two defaults contemplated under European legislation.

Market indicators

The strong tensions on international financial markets triggered by the spread of the pandemic have also had an impact on the share prices of European banks. The drop in share prices registered since mid-February for Italian banks (44 per cent) is in line with that of the other euro-area intermediaries. The price-to-book (PTB) ratio of listed banks has fallen to very low levels across the entire euro area (Figure 2.10.a). This is a result of both an increase in the risk premium on shares and the decrease in the expected return on equity (ROE), which has declined from 7.9 to 4.8 per cent for the major listed European banks and from 6.9 to 3.6 per cent for the Italian ones. The insolvency risk premiums on bonds issued by banks, measured by the prices of credit default swaps (CDS), have risen (Figure 2.10.b).

Figure 2.10



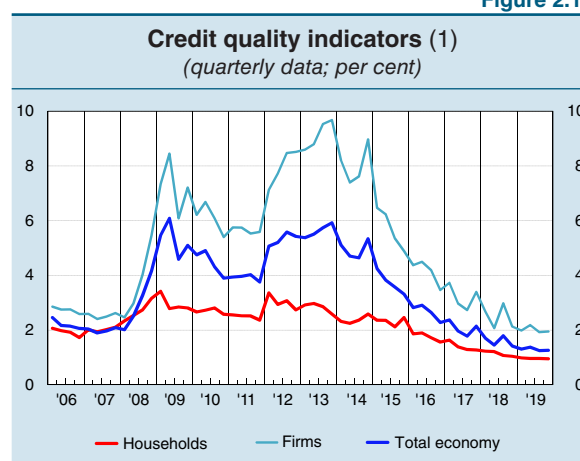
Sources: Based on data from CMA and Refinitiv.

(1) The data refer to the banks listed on the FTSE Italy Banks, FTSE Germany Banks, FTSE France Banks, FTSE Spain Banks and Euro Stoxx Banks. – (2) Simple average of 5-year CDS spreads. 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.

Asset risks

The macroeconomic shock brought about by the pandemic could lead to a sharp increase in the flow of new non-performing loans (NPLs) as share of total loans, which stood at historically low levels at the end of 2019 (Figure 2.11). According to our estimates, for each 1-percentage-point decline in GDP – other variables holding constant – the flow of new non-performing loans in proportion to total performing loans tends to increase by 20 basis points for firms and 10 basis point for households. These assessments, based on historical regularity, do not include the effects of legislative measures on moratoriums, public guarantees for loans (see the box ‘Public intervention in lending to firms’, Chapter 1) and income support measures for households. While

Figure 2.11



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.

they remain in force, these measures will have the effect of limiting, even substantially so, the number of insolvencies. Over the longer term, the repercussions of the pandemic on credit quality will depend on how long the recession lasts, on the speed of the recovery, and on the introduction of additional public support measures.

Until the outbreak of the epidemic, NPLs had been decreasing even faster than had been agreed with supervisory authorities. Banks sold €31 billion worth of NPLs in 2019, around €6 billion more than had been planned at the start of the year. The sale of NPLs excluding bad loans amounted to about €8 billion, up by €3 billion on 2018. Banks are currently revising their plans to reduce these loans in 2020 to take account of the economic fallout of the pandemic on the flow of new NPLs and on their ability to sell these positions on the market. The suspension of ongoing judicial proceedings will lengthen bad loan recovery time and increase uncertainty about the outcomes: this means that these loans will remain on banks' balance sheets for longer and could hamper investment by operators that specialize in purchasing NPLs.⁵

Table 2.1

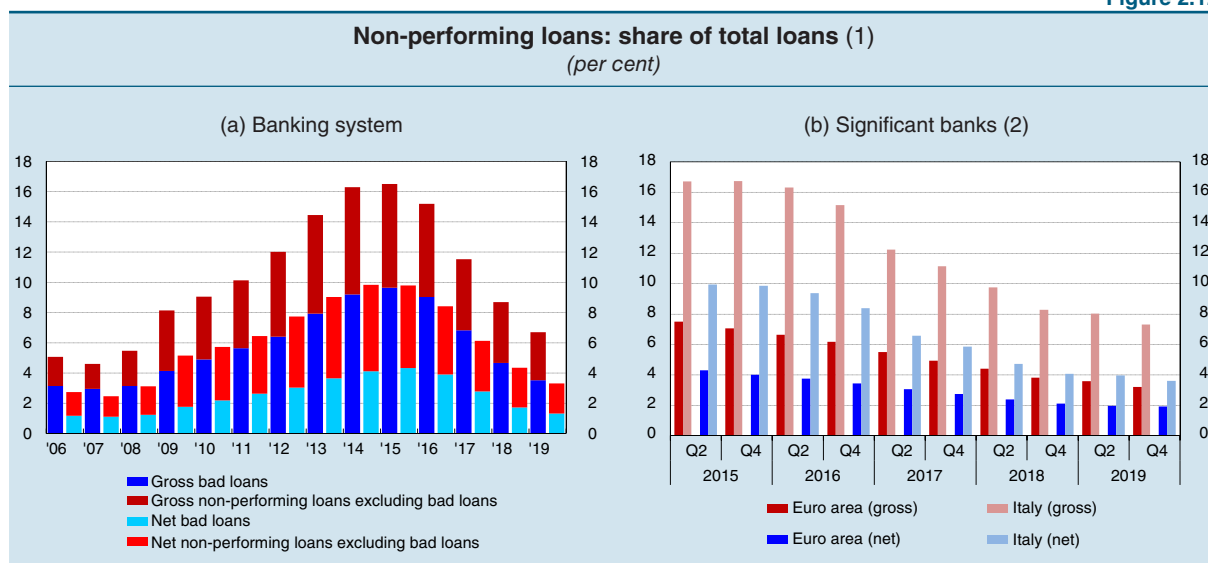
Credit quality: amounts and shares of non-performing loans and coverage ratios (billions of euros and per cent)															
	Significant banks (1)					Less significant banks (1)					Total (1)				
	Gross exposures	Net exposures	Gross percentage share	Net percentage share	Coverage ratio (2)	Gross exposures	Net exposures	Gross percentage share	Net percentage share	Coverage ratio (2)	Gross exposures	Net exposures	Gross percentage share	Net percentage share	Coverage ratio (2)
December 2019 (3)															
Loans (4)	1,750	1,679	100.0	100.0	4.0	203	195	100.0	100.0	4.0	2,178	2,091	100.0	100.0	4.0
Performing	1,633	1,625	93.3	96.8	0.5	187	186	91.8	95.1	0.5	2,031	2,021	93.3	96.7	0.5
of which: stage 2 (5)	150	145	8.7	8.7	3.4	8	8	6.5	6.6	3.0	166	160	8.2	8.3	3.5
Non-performing	117	54	6.7	3.2	53.7	17	10	8.2	4.9	43.1	147	70	6.7	3.3	52.4
Bad loans (6)	61	21	3.5	1.3	65.2	8	4	4.0	2.0	54.3	77	28	3.5	1.3	63.6
Unlikely to pay (6)	52	30	3.0	1.8	42.3	8	5	3.7	2.5	34.9	65	38	3.0	1.8	41.3
Past due (6)	4	3	0.2	0.2	25.7	1	1	0.5	0.4	11.8	5	4	0.2	0.2	24.4
June 2019															
Loans (4)	1,757	1,674	100.0	100.0	4.7	214	203	100.0	100.0	5.3	2,198	2,094	100.0	100.0	4.7
Performing	1,616	1,608	92.0	96.1	0.5	192	191	89.7	94.3	0.5	2,021	2,010	91.9	96.0	0.5
of which: stage 2 (5)	150	144	9.1	9.2	3.7	12	12	7.2	7.4	3.4	174	168	8.6	8.7	3.8
Non-performing	141	66	8.0	4.0	53.0	22	12	10.3	5.7	47.5	177	84	8.1	4.0	52.5
Bad loans (6)	75	26	4.3	1.5	65.7	12	5	5.6	2.4	59.9	96	34	4.4	1.6	64.9
Unlikely to pay (6)	62	38	3.6	2.3	39.3	9	6	4.0	2.8	35.4	76	46	3.5	2.2	38.9
Past due (6)	3	3	0.2	0.2	25.2	1	1	0.6	0.6	12.6	5	4	0.2	0.2	23.1

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

(1) Significant banks are those supervised directly by the ECB; less significant banks are those supervised by the Bank of Italy in close cooperation with the ECB. The total includes subsidiaries of foreign banks that are not classified as either significant or less significant Italian banks and account for about 10 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. The aggregate is in line with that used by the ECB and differs from the one used in the Financial Stability Report up to 2017 ('customer loans'). – (5) Based on the IFRS 9 accounting standard, stage 2 includes loans whose credit risk has increased significantly since initial recognition. The aggregate includes loans recorded in the portfolio at amortized cost. – (6) The non-performing loan sub-categories reflect the Bank of Italy's un-harmonized definition, which flanks 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, consistent with the definitions used in the past.

⁵ Decree Laws 18/2020 and 23/2020 suspended pending civil proceedings. A specific provision also suspends, for a limited period, bankruptcy proceedings and other proceedings founded on a determination of insolvency.

Figure 2.12



Sources: 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 December 2019 are provisional. – (2) The perimeter of significant banks and less significant banks differs between the dates in the figure: in June 2019, with the reform of the cooperative banking sector, Cassa Centrale Banca became the 12th banking group classified as significant for supervisory purposes; 143 cooperative credit banks (BCCs) have joined the ICCREA group, which was already classified as significant before the reform.

The stock of NPLs net of loan loss provisions continued to decrease until December, when they amounted to €70 billion (€147 billion gross of provisions) for the banking sector as a whole, down 17 per cent compared with the previous six months (Table 2.1). The ratio of NPLs to total loans (including interbank and central bank exposures) fell to 3.3 per cent (6.7 per cent gross of provisions). The coverage ratio (i.e. loan loss provisions in relation to the stock of gross NPLs) remained stable at 52.4 per cent. The ratio of net NPLs to total loans of the Italian significant groups was still 1.4 percentage points higher than that of euro-area significant banks as a whole (Figure 2.12).

As a result of the massive sales of bad loans completed in recent years, around half of the NPLs carried by banks on their balance sheets consist of unlikely-to-pay exposures (44 and 54 per cent of the total, respectively gross and net of provisions). It is quite possible that in the coming months the quality of these positions will worsen,⁶ consequently increasing their expected loss and the associated loan loss provisions. The losses could have a significant impact on banks' profitability. According to our simulations, if the coverage ratio for unlikely-to-pay exposures were to equal that of bad loans, the additional loan loss provisions would amount to €15 billion, corresponding to 1.1 percentage points of risk-weighted assets, and higher than the average annual gross profits of the banking system for the last three years, equal to €12 billion.

Before the start of the epidemic, Italian banks had once again begun to reduce the stock of Italian government securities in their portfolios. At the end of January, these holdings totalled €316 billion or 9.4 per cent of total assets. Over the space of a year, net sales amounted to about €28 billion (of which €25 billion by significant banks; Figure 2.13). As has already occurred in the past, net purchases have turned positive with the resurgence of market tensions.

⁶ The measures provided by Decree Law 23/2020 to support bank lending to firms apply only to a very limited number of loans classified as unlikely-to-pay, given that loans already classified as non-performing at the beginning of the year are not eligible.

According to our estimates, the variation in the CET1 ratio due to changes in the prices of Italian government securities in the first three months of 2020 amounted to about 10 basis points (9 points for significant banks, 18 points for less significant banks).⁷ The impact was limited by the high share (63 per cent) of investments allocated to the portfolio valued at amortized cost.

The risks to banks arising from the volatility of government portfolio securities prices are mitigated by the PEPP, which is limiting fluctuations in prices on the secondary market.

In December 2019, Italian banks' exposure to emerging economies, which in recent months have experienced massive outflows of capital (see Section 1.1), was fairly limited (about 7 per cent of total exposures).

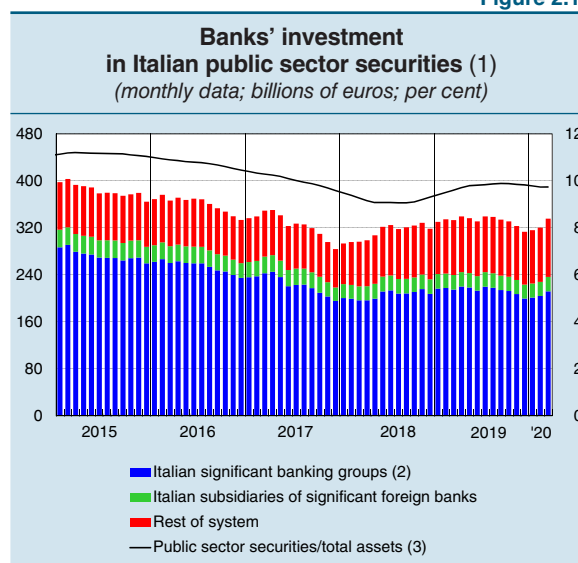
Refinancing risk and liquidity risk

The funding of Italian banks has been affected to a limited extent by the tensions in the bond markets thanks to strong growth in recent years in deposits by households and firms (see the box 'The shift in Italian banks' retail funding', in *Financial Stability Report*, 1, 2019) and to ample recourse to central bank refinancing. The preliminary data suggest that deposits, which had increased very strongly up until February of this year (Table 2.2), continued to rise even after the outbreak of the epidemic. Loans to residents are financed entirely through retail funding. In December 2019, the net stable funding ratio (NSFR), which will become a binding requirement for European banks in 2021, stood at 114 per cent on average for the Italian significant banks; none of these banks had a ratio below 100, the regulatory minimum.

Wholesale funding on bond markets has been severely affected by market conditions. Between November 2019 and mid-February 2020, net bond issues by Italian banks were equal to €6.6 billion (Figure 2.14.a). Since the final week of February, against redemptions of €3.5 billion, there has been an interruption in placements on international markets and yields on the secondary markets have risen significantly (Figure 2.14.b). The average yield on senior unsecured bonds rose by around 170 basis points to 2.0 per cent; the increase for the major French and German banks was 60 and 80 basis points, respectively to 0.6 and 0.8 per cent. The yield on 5-year subordinated bonds rose by 2.5 percentage points to 4.9 per cent. The increase was less than that recorded for German banks (2.9 points to 4.1 per cent), but more than that of French and Spanish banks (1.2 and 1.8 points, respectively, to 1.9 and 3.3 per cent).

⁷ 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 (the amount of which in some cases is significant), and on the other, they do not take account of elements that could mitigate the impact, such as the existence of hedging operations and the tax effects.

Figure 2.13



Source: Supervisory reports.

(1) All public sector securities, including those issued by local authorities. Excludes Cassa Depositi e Prestiti SpA. The data for March 2020 are provisional. – (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 repurchased self-issued bonds. Right-hand scale.

Table 2.2

Main assets and liabilities of Italian banks (1)
(levels and percentage changes)

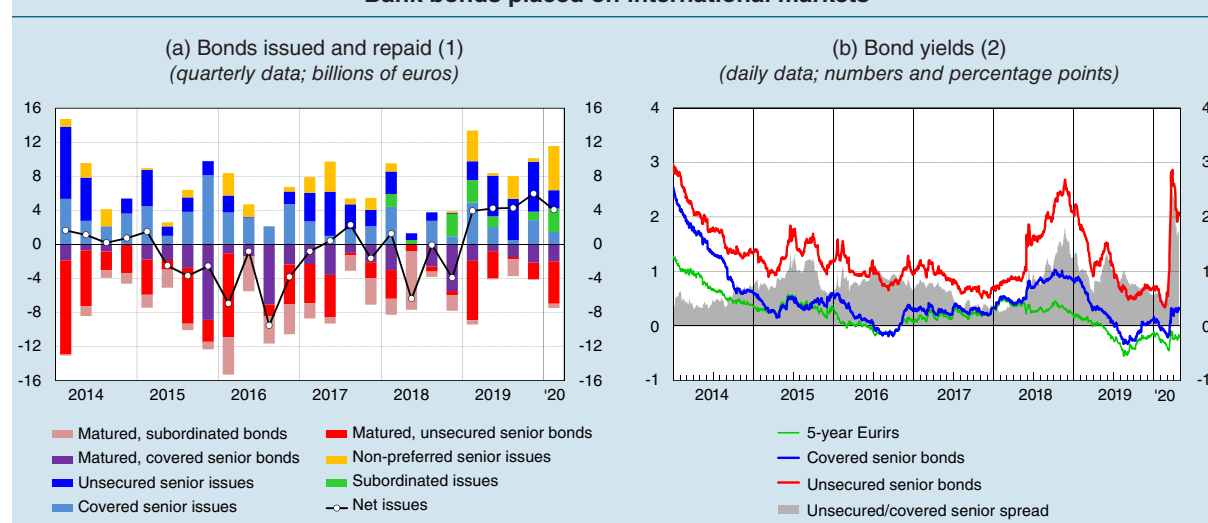
Assets			Liabilities		
	Stocks (shares)	12-month percentage changes (2)		Stocks (shares)	12-month percentage changes (2)
Loans to Italian residents (3)	42.4	-2.1	Deposits of residents in Italy (3)	39.8	7.0
Debt securities (4)	13.7	-3.5	Deposits of non-residents	9.8	3.0
External assets	12.9	7.7	Bonds (9)	6.5	-3.0
Claims on the Eurosystem (5)	3.1	50.6	Liabilities vis-à-vis the Eurosystem (5)	6.3	-11.4
Claims on central counterparties (6)	2.3	-3.4	Liabilities towards central counterparties (6)	2.9	-18.2
Equity shares and participating interests	1.8	-1.0	Capital and reserves	9.9	-0.2
Claims on resident MFIs (7)	12.4	8.0	Liabilities towards resident MFIs (10)	12.2	6.0
Other assets (8)	11.3	5.0	Other liabilities (11)	12.6	4.2

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

(1) Data as at February 2020. Excludes liabilities to other banks resident in Italy. – (2) Adjusted for reclassifications, value adjustments and exchange rate movements. – (3) Excludes transactions with central counterparties. – (4) Repos only, representing foreign funding via central counterparties. – (5) 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. – (6) Only repos. – (7) Includes bonds issued by resident MFIs and loans to resident MFIs. – (8) Includes: cash, money market fund units, derivatives, movable and immovable goods, and some minor items. – (9) Excludes bonds held by resident MFIs. – (10) Includes bonds held by resident MFIs and deposits of resident MFIs. – (11) Includes derivatives, deposits with a maturity above 2 years held by vehicle companies and some residual items.

Figure 2.14

Bank bonds placed on international markets



Sources: Dealogic and Bloomberg.

(1) Italian banks' issues on international markets. Does not include issues retained on issuers' balance sheets and those earmarked for the retail market. Includes bonds deriving from securitizations. – (2) Yields at maturity of Italian banks' bonds with residual maturity of 5 years.

In 2019, the resources held that can satisfy the subordination component of the minimum requirement for own funds and eligible liabilities (MREL) subject to bail-in (i.e. capital, subordinated securities that are not considered own funds⁸ and senior non-preferred securities) increased by 2 percentage points to 19 per cent of risk-weighted assets. There is a limited need to carry out new issues to replace bonds maturing

⁸ Regulation (EU) 575/2013 (Capital Requirements Regulation, CRR) provides that own funds includes shares and some categories of liabilities (tier 1 and tier 2 instruments). Subordinated securities that are not included in the calculation of own funds, but that in the case of insolvency have less priority over other unsecured debt, are eligible for MREL purposes under the CRR.

Table 2.3

Liquidity indicators of Italian banks (per cent)			
	LCR (31 March 2020)	Net liquidity position at 1 month (14 April 2020)	Net liquidity position at 3 months (14 April 2020)
Significant banks (1)	161.1	17.7	16.9
Less significant banks (2)	338.5	17.9	16.0
Total banking system	173.9	17.8	16.5

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

(1) Banks directly supervised by the ECB; only includes banks in existence on both dates. – (2) Banks supervised by the Bank of Italy in cooperation with the ECB.

in the coming months: almost 90 per cent of these securities will mature after 2021. The Single Resolution Board (SRB) recently communicated that it is ready to use the discretion and flexibility given by the regulatory framework on MRELs to mitigate the impact of the pandemic on banks.⁹

In March, the average liquidity coverage ratio (LCR) for the banking system as a whole stood at 174 per cent, compared with a regulatory minimum of 100 per cent (Table 2.3). The net liquidity position, valued at one month and at three months, increased until February, as a result of the good performance of bond issues. Even after the onset of the public health emergency, the daily data on payments made by banking system customers and the information obtained from the weekly monitoring on banks' liquidity do not indicate that tensions are arising.

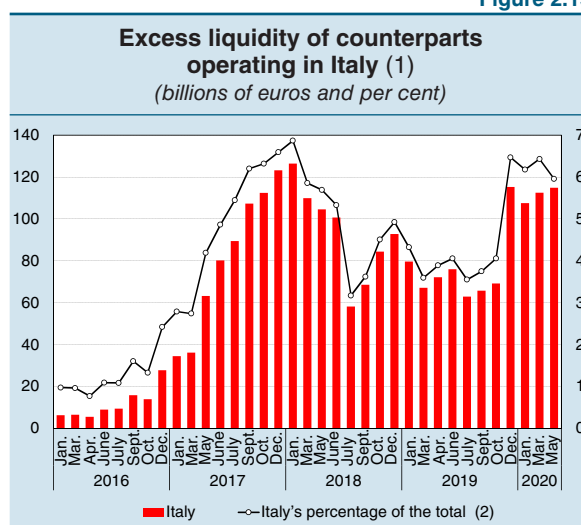
Italian banks possess ample liquidity reserves deposited with the Bank of Italy in excess of the reserve requirements, equal on average to €112 billion during the maintenance period which ended on 17 March (Figure 2.15).

That same month, the ECB approved a package of monetary policy measures in response to the crisis sparked by the spread of COVID-19 (see the box 'The monetary policy measures adopted by the ECB in March 2020' in *Economic Bulletin*, 2, 2020). New series of longer-term refinancing operations (LTROs) are planned, as are more favourable conditions, regarding both the interest rate and the amounts available, for the third series of targeted longer-term refinancing operations (TLTRO III).

In March, the amount of Eurosystem refinancing obtained by counterparties operating in Italy rose by €45 billion to €260 billion as a result of large-scale recourse to the new LTROs maturing in June. From then on, banks will be able to take advantage of the more favourable conditions for TLTRO III. In March, Italian banks relied on US dollar-denominated financing operations for more than €10 billion following the increase in funding costs in this currency on the market.

⁹ SRB, 'Communication from the SRB on the potential Covid-19 outbreak relief measures', 25 March 2020, and subsequent communication of the Chair of the SRB, E. König, 'Covid-19 crisis: the SRB's approach to MREL targets', 8 April 2020.

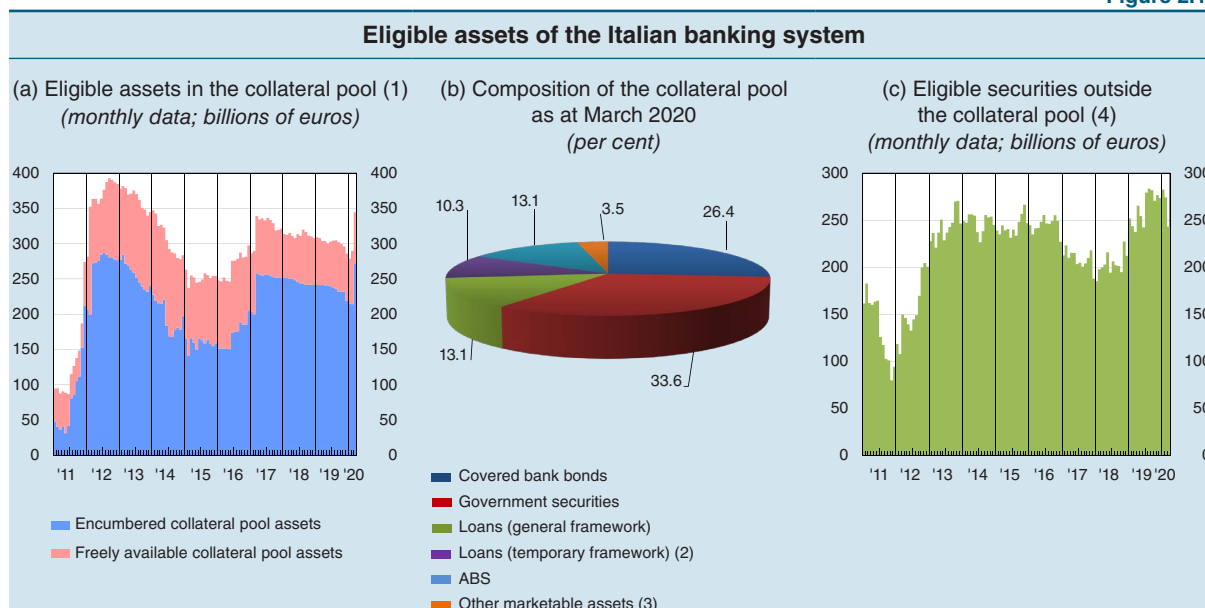
Figure 2.15



Sources: Based on ECB and Bank of Italy data.

(1) The data indicated on the x-axis refer to the month ending each maintenance period. The exception is May 2020, for which the data cover up to 23 April. Excess liquidity is calculated as the sum of banks' average reserve balances, net of the reserve requirement, plus average recourse to the deposit facility. – (2) Right-hand scale.

Figure 2.16



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 di Risparmio di Padova e Rovigo SpA and Poste Italiane SpA. Amounts at market values as reported by the banks, net of the haircuts applied by the Eurosystem.

In conjunction with the increased use of refinancing, the assets used as collateral for Eurosystem refinancing operations have risen by €55 billion to €345 billion at the end of March (Figure 2.16.a). Government securities make up the main class of eligible assets (34 per cent of the total), followed by covered bank bonds (26 per cent; Figure 2.16.b). The asset encumbrance ratio rose in March to 28 per cent (26.4 per cent at the end of 2019). The volume of assets that can be used as collateral to obtain Eurosystem refinancing nevertheless remains high. Freely available assets amount to €72 billion, around one fifth of the collateral pool. Securities eligible for use as collateral in Eurosystem operations that are available outside the collateral pool (Figure 2.16.c), of which more than 90 per cent are government securities, total around €240 billion. The decrease compared with February, equal to 11 per cent, is mainly attributable to a portion of the securities having been deposited in the collateral pool and, to a lesser extent, to market prices having declined.

In April, the ECB Governing Council approved a revision of the eligibility conditions for collateral,¹⁰ which for Italian banks led to a €35 billion increase in the value of the collateral pool, and measures to mitigate the impact of possible rating downgrades on collateral availability.¹¹ This latter decision makes it possible to continue to use securities whose ratings are downgraded to as low as BB as collateral for refinancing operations through September 2021, provided that these securities were classified as ‘investment grade’ on 7 April.¹² According to our estimates, in the absence of this intervention, any downgrade of one or two notches in the rating of all the assets of Italian private issuers would have caused the value net of haircuts to decrease respectively by €2 billion and €9

¹⁰ ECB, ‘ECB announces package of temporary collateral easing measures’, press release, 7 April 2020.

¹¹ ECB, ‘ECB takes steps to mitigate impact of possible rating downgrades on collateral availability’, press release, 22 April 2020.

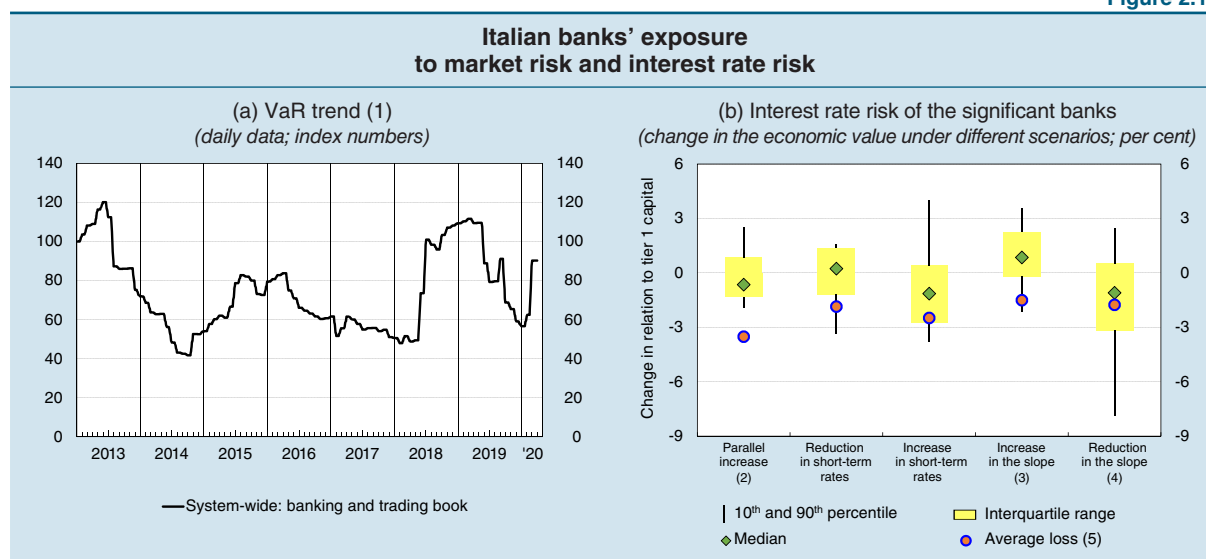
¹² For asset-backed securities only, the rating threshold is instead set at BB+.

billion for assets deposited in the collateral pool and by €2 billion and €4 billion for securities outside the collateral pool.

Market risk and interest rate risk

The greater volatility in the prices of portfolio securities has caused the market risk faced by banks to increase significantly. Our estimates indicate that in the first quarter of the year, the Value at Risk (VaR) for the banking and trading books rose by 55 per cent (Figure 2.17.a).

Figure 2.17



Sources: For VaR, based on data from supervisory reports, the securities database and Refinitiv; for interest rate risk, Short Term Exercise (STE) data at 31 December 2019 relating to 12 significant banking groups.

(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 is estimated 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. – (2) Increase of 200 basis points along the entire risk-free yield curve. – (3) A reduction in short-term rates and an increase in long-term rates. – (4) An increase in short-term rates and a reduction in long-term rates. – (5) 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.

The exposure of Italian significant banks to interest rate risk instead remains moderate overall and far below the thresholds set in the EBA Guidelines.¹³ Based on data for December, the various interest rate scenarios considered in the Guidelines¹⁴ would result in an average reduction¹⁵ in the economic value of the banking book of between 1.5 and 3.5 per cent of tier 1 capital (Figure 2.17.b). The biggest weighted average loss, equal to 3.5 per cent of tier 1 capital, would occur in the event of an upward parallel shift in the yield curve of 200 basis points, currently very unlikely.

¹³ The exposure to interest rate risk for prudential purposes is calculated by the banks based on EBA Guidelines, which were recently revised (see EBA, 'Guidelines on the management of interest rate risk arising from non-trading book activities', July 2018). The results are sent to the supervisory authorities for use in the Supervisory Review and Evaluation Process (SREP). The supervisory authorities may adopt measures if, in the scenarios considered, the losses exceed 20 per cent of total capital or 15 per cent of tier 1 capital.

¹⁴ The main scenarios considered are: (a) a parallel increase in the yield curve of 200 basis points; (b) a reduction in short-term rates; (c) an increase in short-term rates; (d) an increase in the slope of the curve (due to the combined effect of a decline in short-term rates and an increase in long-term rates); and (e) a reduction in the slope of the curve (due to the combined effect of an increase in short-term rates and a decline in long-term rates).

¹⁵ The average reduction is calculated by only taking account of banks with negative exposures.

Capital and profitability

At the end of last year, Italian banks' CET1 ratio was equal on average to 13.9 per cent. In the last six months of 2019, the increase was 40 basis points, thanks to capital growth. The CET1 ratio stood at 13.9 per cent for significant banks and at 16.0 per cent for less significant banks.¹⁶

To limit the impact of the pandemic on the funding of the economy and to avoid pro-cyclical effects, the supervisory authorities, taking advantage of the flexibility allowed by the regulatory framework, have adopted measures that will enable banks to use a greater amount of the capital available to absorb possible losses and so continue to provide credit (see the box 'Measures adopted by the supervisory authorities and effects on banks'). The progressive increase in capital requirements following the financial crisis of 2008 was critical to strengthening the banks and has made it possible to temporarily relax supervisory measures in this phase.

In 2019, the profitability of Italian banks fell compared with the previous year, owing mainly to the decrease in net interest income and to higher taxes.¹⁷ Net of extraordinary components, ROE amounted to 5.0 per cent. The profitability of the larger banks and of the smaller ones followed different trends. The ROE of the significant banks fell by about 1 percentage point to 4.9 per cent, while that of the less significant banks rose by about 3 points on average, to 6.5 per cent.¹⁸

The crisis sparked by the pandemic could severely weaken Italian banks' profitability. The contraction in economic activity is expected to exacerbate the decline in interest income and, if protracted, to cause the cost of risk to increase. Persistent tensions on financial markets could translate into a fall in subscriptions to asset management products and, as a result, a subsequent decline in fees and commissions. Small banks with a traditional business model, which had already been finding it difficult to maintain satisfactory profitability levels before the outbreak of the epidemic, could be hit particularly hard by the shock.

MEASURES ADOPTED BY THE SUPERVISORY AUTHORITIES AND EFFECTS ON BANKS¹

Since mid-March, the leading national and international supervisory and regulatory authorities have adopted measures so that the temporary liquidity difficulties of customers and the consequent deterioration of banks' balance sheets do not lead to a significant contraction in lending, thus triggering a vicious circle.

The measures have taken various forms, such as clarifications, recommendations, and decisions. They all make ample use of the flexibility allowed under the prudential and accounting rules, without changing the basic framework of controls and safeguards, which were significantly strengthened following the global financial crisis.

One of the first interventions clarified that customer access to debt moratoriums (possibly backed by public guarantees) would not automatically lead to recognition of credit impairment, either from a prudential

¹ By Maria Alessia Aiello and Francesco Piersante.

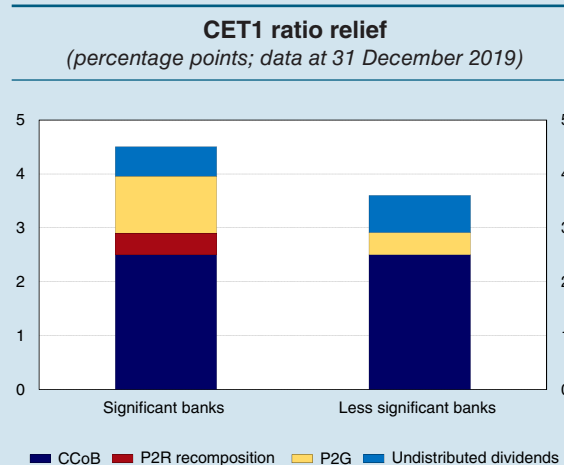
¹⁶ The CET1 ratio for the less significant banks as a whole fell on average by more than 80 basis points during the second half of the year. This decrease is due solely to the acquisition and merger of Unipol Banca by BPER Banca Group, which resulted in the former's exit from the market. Excluding this operation, the CET1 ratio for the less significant bank would have risen by around 40 basis points.

¹⁷ In 2018, banks benefited from the recognition of deferred tax assets in connection with the first-time adoption of IFRS 9.

¹⁸ For a homogeneous comparison, the data referring to the two categories of banks, unlike banking system data, do not include the cooperative credit banking groups ICCREA and Cassa Centrale Banca.

or an accounting point of view. In particular, the Basel Committee and the EBA² have actually clarified that participation in legislative moratoriums (or non-legislative moratoriums sponsored by a large part of the banking system) and recourse to government guarantees would not automatically lead to loans being reclassified as forborne or non-performing exposures.³ It was also explained that availing of a moratorium does not in itself imply a significant increase in credit risk for accounting purposes (moving from Stage 1 to Stage 2 of the IFRS 9 accounting standard). The authorities also provided indications for banks on how to apply the IFRS 9 standard to mitigate any procyclical effects in the calculation of their loan loss provisions.⁴ It was further recommended that, if they had not already done so, banks should make use of the transitional arrangements for the entry into force of IFRS 9, which had been introduced specifically to cushion the impact of the largest adjustments to their regulatory capital.⁵

The interventions adopted by the SSM for the significant banks and by the Bank of Italy for the less significant banks have made it possible for intermediaries to operate temporarily below the level of some capital and liquidity buffers usually required.⁶ The capital components involved are the non-binding capital requirements (Pillar 2 Guidance - P2G) determined for each individual bank under the Supervisory Review and Evaluation Process (SREP) and the capital conservation buffer (CCoB), equal to 2.5 per cent of all banks' risk-weighted assets. In addition, the significant banks are now allowed to use capital instruments that do not qualify as common equity tier 1 (CET1) capital, to satisfy Pillar 2 requirements (P2R), as was already the case for the less significant banks.⁷ The flexibility these measures confer will allow intermediaries to absorb any losses without being subject to supervisory action. Overall, the capital



² Basel Committee 'Basel Committee sets out additional measures to alleviate the impact of Covid-19', press release, 3 April 2020, and EBA, 'Statement on the application of the prudential framework regarding default, forbearance and IFRS 9 in light of Covid-19 measures', press release, 25 March 2020. The EBA's accounting clarifications also refer to those issued by the European Securities and Markets Authority, 'ESMA Issues Guidance on accounting implications of Covid-19', press release, 25 March 2020. The SSM has also provided guidance on the subject (ECB, 'ECB Banking Supervision provides further flexibility to banks in reaction to coronavirus', press release, 20 March 2020).

³ Specifically, the clarification relates to the classification of unlikely-to-pay loans. The EBA Guidelines of 2016 (EBA, 'Final Report. Guidelines on the application of the definition of default under article 178 of regulation (EU) no 575/2013', 28 September 2016) on the definition of default, did in fact clarify that a legislative moratorium, by suspending the counting of days past due, would not lead to debts being classified as past-due exposures. In its latest indications, the EBA further recommends that private payment suspensions should be considered in the same way as legislative moratoria, as long as they have similar characteristics.

⁴ Banks have been invited to determine adjustments, based on long-term estimates, that are more stable and less uncertain, giving more weight to the most likely scenario, and taking sufficient account of the beneficial effect of government measures to support borrowers.

⁵ During the transitional period introduced by Article 473a of the CRR, banks are permitted to deduct from CET1 only a portion, rising over time, of the increased loan loss provisions recognized during the first-time application of IFRS 9.

⁶ ECB, 'ECB Banking Supervision provides temporary capital and operational relief in reaction to coronavirus', press release, 12 March 2020; ECB, 'ECB Banking Supervision provides further flexibility to banks in reaction to coronavirus', press release, 20 March 2020. Bank of Italy, 'Extension of deadlines and other temporary measures to mitigate the impact of COVID-19 on the Italian banking and financial system', press release, 20 March 2020.

⁷ Furthermore, a number of significant banks with exposures to non-residents could benefit - albeit minimally - from the decisions taken by the macroprudential authorities of other European countries to release the countercyclical capital buffer (CCyB).

buffers now available to Italy's significant banks amount to 4.0 percentage points (in terms of the CET1 ratio), and to 2.9 points for the less significant banks (see the figure). If necessary, the banks can operate below the liquidity coverage requirement (LCR) of 100 per cent: this will make it possible for them to deal more easily with any necessary extension of agreed credit lines.

The SSM has also adopted a temporary measure to mitigate the procyclical effects of an increase in capital requirements for market risk due to higher market volatility. Banks that make use of internal models will benefit from these measures.⁸

In order to strengthen banks' own funds, putting them in a better position to continue to support the economy, the SSM and the Bank of Italy have recommended that, in tandem with the capital buffer measures, intermediaries should not distribute dividends or buy back their own shares.⁹ Both the significant and the less significant banks have complied with the recommendation. This measure will free up additional capital, on average equal to 0.5 percentage points in terms of the CET1 ratio.

The Basel Committee has deferred for one year, to 1 January 2023, the entry into force of the international standards recently issued in relation to the completion of Basel III, the prudential treatment of market risk, and the review of disclosure requirements vis-à-vis the market.¹⁰ The new start date will allow banks to increase their own funds more gradually to the level determined by the new standards.

⁸ ECB, 'ECB Banking Supervision provides temporary relief for capital requirements for market risk', press release, 16 April 2020.

⁹ ECB, 'Recommendation on dividend distributions during the Covid-19 pandemic', 27 March 2020 and Bank of Italy, 'Recommendation of the Bank of Italy on the dividend distribution policies of less significant Italian banks during the COVID-19 pandemic', press release, 27 March 2020.

¹⁰ Basel Committee, 'Governors and Heads of Supervision announce deferral of Basel III implementation to increase operational capacity of banks and supervisors to respond to Covid-19', press release, 27 March 2020.

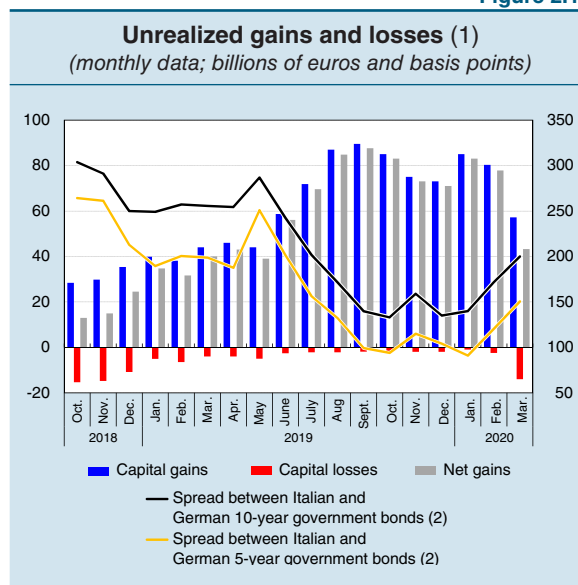
2.3 INSURANCE COMPANIES AND THE ASSET MANAGEMENT INDUSTRY

Insurance

The sharp drop in financial asset prices and the rise in their volatility triggered by the COVID-19 pandemic have affected insurance companies' solvency position.¹⁹ Our estimates, based on the prudential balance sheet at end-2019, indicate that the fall in equity prices and the widening of spreads on debt securities in the first quarter of this year have led to an average reduction of 7 per cent in the asset value of Italian insurance companies. The net unrealized gains resulting from the book value of portfolio securities declined by 39 per cent (Figure 2.18).

¹⁹ Under European prudential rules the solvency position is calculated on the basis of the 'prudential balance sheet' in which the asset and liability items are valued at market prices.

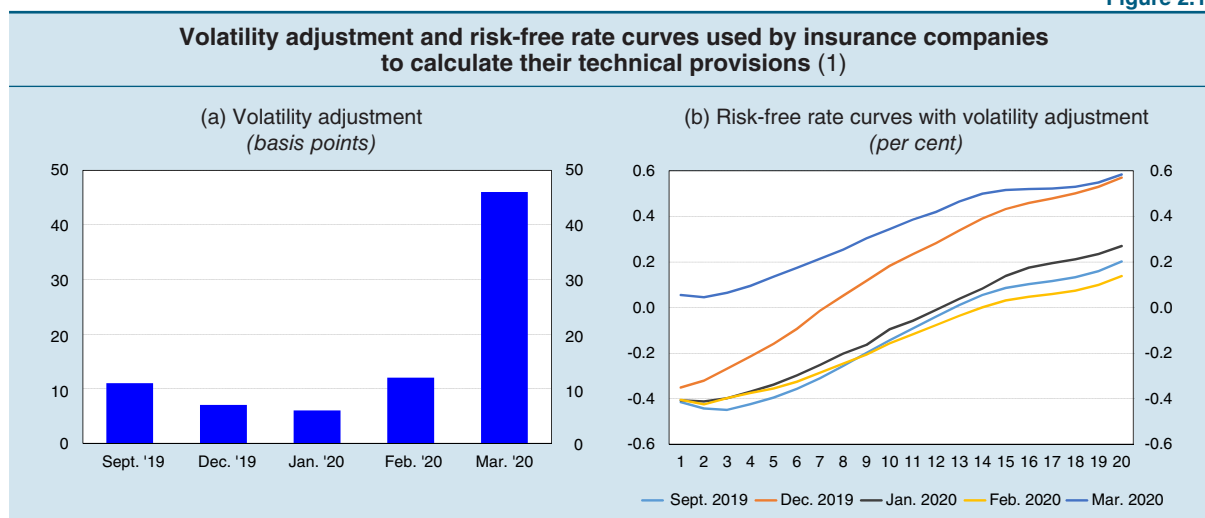
Figure 2.18



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 2.19



Source: European Insurance and Occupational Pensions Authority (EIOPA).

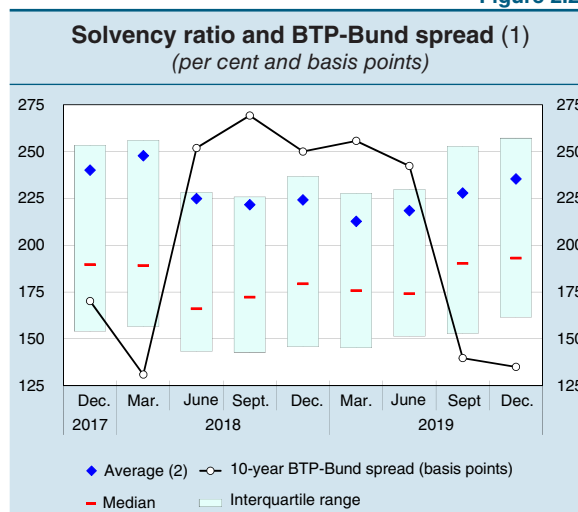
(1) The volatility adjustment consists in raising the risk-free rate curve used to calculate the prudential balance sheet liabilities in the event of changes in bond spreads. For the calculation method, see EIOPA, 'Technical documentation of the methodology to derive EIOPA's risk-free interest rate term structures', September 2019.

To calculate the market value of liabilities, companies have made wide use of the risk-free interest rate curve with volatility adjustment²⁰ (Figure 2.19). This allowed them to mitigate the effects of variations in the market prices of assets on their solvency position.

The findings of a survey run by the Italian Insurance Supervisory Authority (IVASS)²¹ show that the average solvency ratio for the sector fell by 35 percentage points in the first quarter of 2020, to around 200 per cent, nevertheless remaining well above the regulatory minimum of 100 per cent (Figure 2.20).

The volatility of the financial markets and the generalized increase in risk premiums demanded by investors have also affected the equity prices of the leading Italian insurance companies, which fell in the first quarter of 2020 by 29 per cent, even if expected profits only declined very slightly

Figure 2.20



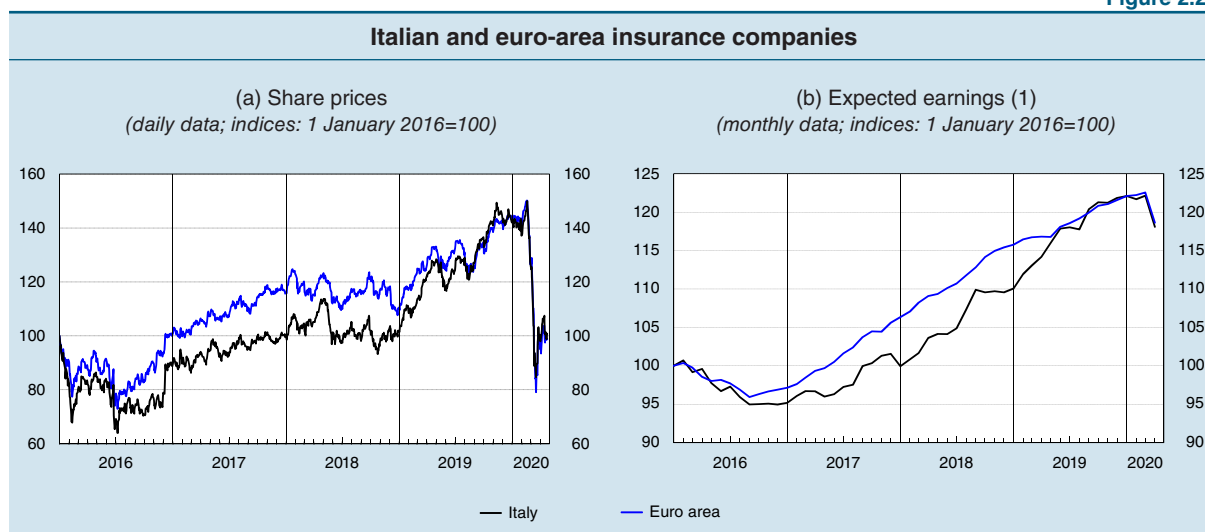
Sources: IVASS and calculations based on Refinitiv data.

(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) Weighted average with weights equal to the solvency capital requirement.

²⁰ The volatility adjustment is an optional measure introduced by Solvency II to mitigate the procyclical effects on market prices of excessive volatility (see the box 'The impact of long-term guarantees under Solvency II', *Financial Stability Report*, 1, 2018). Since December 2019, one of the two thresholds for triggering the national component of the volatility adjustment has been lowered from 100 to 85 basis points. The change was implemented under Italian law by Decree Law 18/2020, amending Article 36-septies, para. 9 of the Code of Private Insurance. However, the national component of the volatility adjustment was not triggered in the first quarter of 2020.

²¹ The official data on insurance companies' solvency position at end-Q1 2020 will be available in May. In line with the EIOPA recommendation of 20 March (EIOPA, *Recommendations on supervisory flexibility regarding the deadline of supervisory reporting and public disclosure. Coronavirus/Covid-19*, 20 March 2020), IVASS postponed the deadline from 5 May to 12 May for reporting prudential data as at 31 March (IVASS, 'Extension of the deadlines and other temporary measures to mitigate the impact of COVID-19 on the Italian insurance system', 30 March 2020).

Figure 2.21



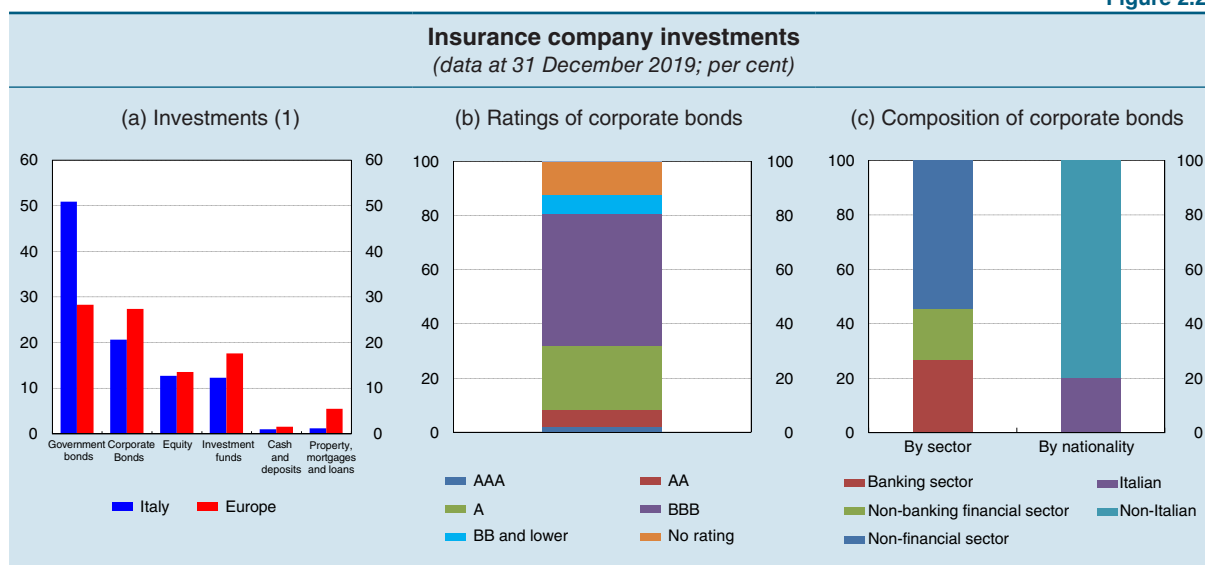
Source: Calculation based on Refinitiv data.

(1) Average, weighted by the number of outstanding shares, 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. 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.

(by 3 per cent; Figure 2.21). These reductions are in line with those of other insurance companies in the euro area.

The fall in economic activity exposes insurance companies to the risk of the downgrading of bonds held in their portfolios, which would lead to an increase in their capital requirements. For Italian companies, investments in corporate bonds account for about one fifth of their portfolios, of which almost half have BBB ratings (Figure 2.22). According to our estimates, any downward revision of the rating from BBB to BB would lead to a small increase of six percentage points in the absorption of the spread risk capital requirement of the bonds concerned.

Figure 2.22



Sources: IVASS and EIOPA.

(1) Data as at 30 September 2019. For Europe, the data refer to the European Economic Area.

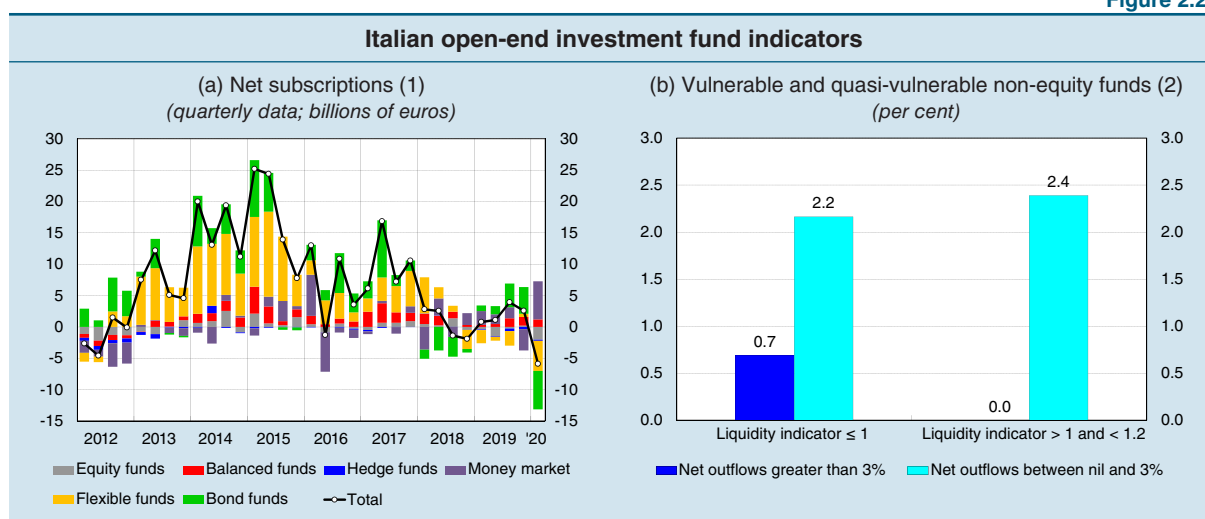
The COVID-19 pandemic will likely also have significant effects on companies' liquidity and earnings, mainly due to the growth in claims from policyholders for cancelled travel arrangements, business interruption, enforcement of guarantees contained in credit, suretyship, medical expenses and assistance policies. In any case, for Italian insurance companies, premiums related to these risks represent 14 per cent of the total for the non-life sector, which is well below European companies' average of 29 per cent. There could also be negative effects on premiums earned and on surrenders on insurance investment products.

Considering the uncertain future evolution of the risk factors for the insurance sector, IVASS sent a letter to Italian insurance companies asking them to act, at solo and group level, with extreme prudence as regards the distribution of dividends and the payment of the variable remuneration component to key managers.²² This recommendation reflects those issued by EIOPA.²³

The asset management industry

The sharp drop in prices on the financial markets that occurred from the second half of February led to net outflows from Italian open-end investment funds (Figure 2.23.a). In the month of March, redemptions were high, above all for equity, bond, and flexible funds. Some 7.7 per cent of funds recorded net redemptions of more than 4.7 per cent of their assets,²⁴ an amount equal to the tenth percentile of the distribution of outflows between 2008 and 2019. Starting in the last week of March, demand for redemptions subsided and, for many sectors, net subscriptions were practically nil or positive.

Figure 2.23



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

(1) 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. For 2020, provisional data for the first two months of the year. – (2) Vulnerable and quasi-vulnerable non-equity fund assets in relation to total non-equity assets. Funds are classed as vulnerable if their liquidity indicator is less than 1.0, whereas they are classed as quasi-vulnerable if their liquidity indicator is between 1.0 and 1.2. Flow data refer to March and are taken from an ad hoc weekly survey of the leading Italian asset management companies. The liquidity indicator refers to the funds' portfolio at the end of February and is equal to the ratio of the fund's assets weighted by the degree of liquidity of its components to net redemptions under the stress scenario. The stress scenario is equal to the average of the values above the 99th percentile of the distribution of net monthly redemptions for each of the sectors analysed between January 2008 and December 2019 (high yield and emerging country funds - 15 per cent; euro area - 32 per cent; United States and global - 29 per cent; Mixed funds - 32 per cent).

²² IVASS, 'IVASS recommends that undertakings use extreme caution in the distribution of dividends', 30 March 2020.

²³ EIOPA, 'EIOPA statement on actions to mitigate the impact of Coronavirus/Covid-19 on the EU insurance sector', 17 March 2020 and EIOPA, 'Statement on dividends distribution and variable remuneration policies in the context of Covid-19', 2 April 2020.

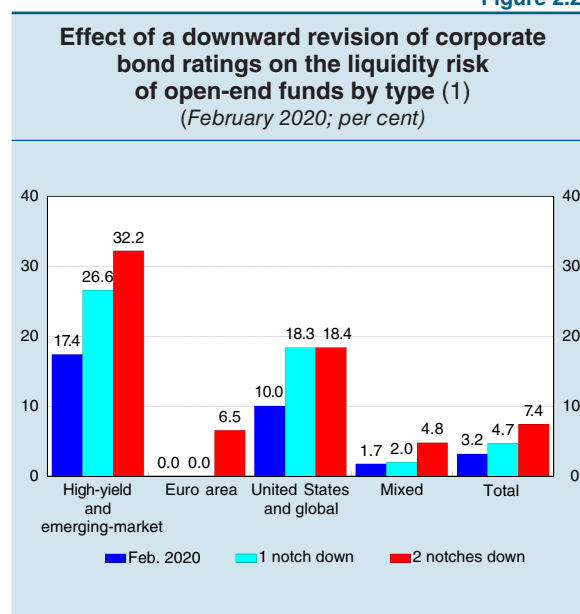
²⁴ In reference to a sample of Italian funds, which account for 90 per cent of total sector assets.

Italian open-end investment funds have dealt smoothly with a large volume of redemption requests, partly thanks to a relatively high degree of portfolio liquidity: under national legislation, no more than 20 per cent may be invested in illiquid assets. Italian funds' liquidity²⁵ (7.9 per cent of net assets on average) remains at the highest level recorded in the last three years and there is still ample scope for activating credit lines (5.4 per cent of assets). Changes in the margin requirements associated with the use of derivatives have not created problems for liquidity management even if the variations were high in some cases. Vulnerable funds (those with a liquidity indicator of less than one)²⁶ account for 2.9 per cent of total assets and, in March, there were significant outflows only in a few cases (Figure 2.23.b).

The risk that a deterioration in the credit rating of the issuers of portfolio securities because of the economic slowdown could lead to a reduction in prices and trigger further outflows is relatively small. Our estimates suggest that in the stress scenarios that revise the ratings of all corporate bonds down by one or two notches, the share of Italian funds with a liquidity indicator of less than one would rise, respectively, to 4.7 and to 7.4 per cent of total fund assets (Figure 2.24).

The recent decisions of some central counterparties to raise the margins required to guarantee derivative operations have increased the liquidity risk of funds that are more exposed to this type of instrument. This risk is fairly limited on average for Italian investment funds (see the box 'The liquidity risk connected with the use of derivatives by Italian open-end investment funds').

Figure 2.24



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

(1) The figure shows how the share of funds with a liquidity indicator of less than one varies relative to the total assets of each of the fund segments analysed following a downward revision of corporate bond ratings by 1 or 2 notches. Open-end investment funds in the 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 December 2019 (high yield and emerging country funds - 15 per cent; Euro area - 32 per cent; United States and global - 29 per cent; mixed funds - 32 per cent).

THE LIQUIDITY RISK CONNECTED WITH THE USE OF DERIVATIVES BY ITALIAN OPEN-END INVESTMENT FUNDS¹

The use of derivative instruments can amplify the liquidity risks to which investment funds are exposed when market prices are experiencing high volatility. It should be noted that derivatives not held for hedging purposes (i.e. not correlated with portfolio securities) increase financial exposure, contributing to higher volatility of investment fund yields and, as a result, to potential demand for redemptions on the part of investors.

¹ By Raffaele Santoni and Dario Portioli.

²⁵ Liquidity is defined as current account holdings net of purchases, sales and subscriptions to be settled.

²⁶ The liquidity indicator is equal to the ratio of the fund's assets weighted by the degree of liquidity of its components to net redemptions under the stress scenario (see note 2 to Figure 2.23).

Derivative contracts, especially those traded in regulated markets, such as futures, are also subject to the application of margin requirements to mitigate counterparty risk.² Rapid growth of these margins, caused not only by changes in the market value of the underlying assets but also by increases in the guarantees required by the central counterparties, can absorb a large share of the liquid assets held by funds.

Overall, Italian open-end investment funds have a low level of exposure in derivative instruments. In December 2019, gross exposure was just above 30 per cent of the sector's total net assets, compared with 13 per cent at the start of 2008 (see the table), divided fairly evenly between hedging positions³ and positions for other purposes (see panel (a) of the figure). Funds with a gross exposure of more than 100 per cent of net assets account for about 3 per cent of the industry's total assets. The most commonly used derivatives were those with foreign currencies and debt securities as underlying instruments (40 and 25 per cent of total exposure, respectively).

Derivative instruments held in Italian open-end investment fund portfolios (1)
(December 2019; per cent)

	Equity	Rate	Currency	Other	Total	of which:	
						Hedging	Futures
Euro bond funds	–	11.0	1.7	2.5	15.3	6.2	12.4
Global bond funds	–	8.6	15.3	8.7	32.6	15.2	15.4
High-yield and emerging-market bond funds	–	8.0	48.5	3.7	60.2	49.0	11.0
Balanced, flexible and other bond funds	6.0	9.7	13.0	4.1	32.8	14.4	14.6
Equity funds	7.3	–	9.2	1.9	18.4	5.2	7.2
Total	4.1	8.8	13.8	4.7	31.4	14.7	13.9

Source: Supervisory reports.

(1) Ratio of exposure in derivatives at market value to net assets.

In order to examine the exposure of Italian investment funds to the liquidity risk associated with the use of derivative contracts, a simulation exercise was conducted to evaluate their capacity to withstand significant increases in the margins on futures. The analysis was made using portfolio data from December 2019.

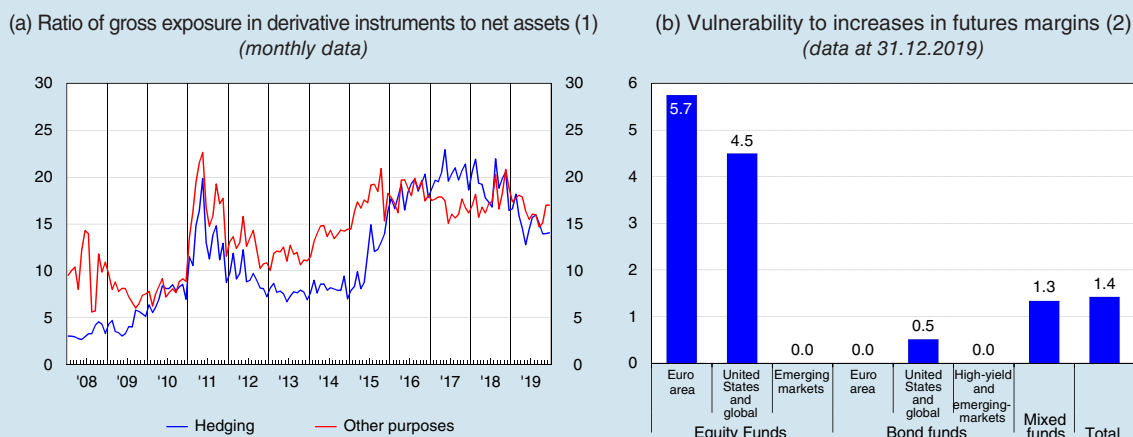
Italy's open-end investment funds that may not have sufficient liquid assets⁴ to cope with the particularly high margins in a simulated stress scenario – corresponding to the first percentile in the distribution of variation margins in the period running from January 2008 to December 2019 – account for 1.4 per cent of the industry's total assets. The percentage is higher for equity funds operating in European and international markets (5.7 and 4.5 per cent respectively; see panel (b) of the figure). In periods of turbulence on the financial markets, such as now, wide variation margins would, in any case, absorb a non-negligible part of the liquid assets of many Italian investment funds. To satisfy the demand for additional guarantees, the most exposed funds should activate bank credit lines or make use of other less liquid assets. The need for liquidity could also become significant at the aggregate level if other sources of stress were to emerge at the same time, as in the case of high demand for redemptions (see the box 'The liquidity risk of Italian open-end investment funds', *Financial Stability Report*, 2, 2019).

² The variation margin corresponds to the amount that, on a daily or intraday basis, each participant pays to (or receives from) the central counterparty against the losses (gains) from changes in the market value of the underlying instruments.

³ The derivatives used for hedging purposes have a lower liquidity risk than those used for other purposes in that changes in their prices are offset by changes of opposite sign in the prices of the underlying financial instruments.

⁴ Liquid assets include bank current accounts, government securities of the euro-area and government securities of other countries with ratings the same or higher than AA.

Liquidity risk indicators of Italian open-end investment funds (per cent)



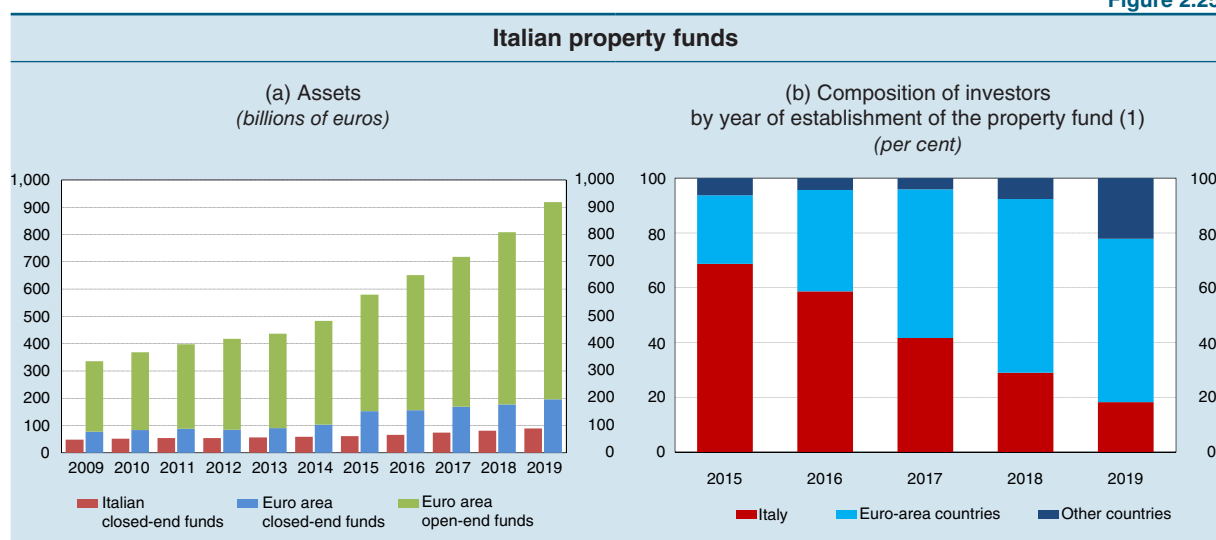
Source: Supervisory reports.

(1) Exposure at market value. – (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. Liquid assets include bank current accounts, government securities of euro-area countries, and government securities of other countries with ratings the same or higher than AA.

Property funds' assets continued to increase at a rapid rate in 2019 (11 per cent; Figure 2.25.a), thanks to the establishment of new funds reserved to professional investors. The value of property transactions remained high mainly thanks to foreign investors (Figure 2.25.b). Growth was concentrated in the Milan area, where almost half of the investments of funds established during the year were made.

The value of the property portfolio of funds reserved to professional investors benefited last year from positive net revaluations (Figure 2.26.a). In the retail property fund sector, whose net assets represent less than 3 per cent of the total, there were widespread write-downs.

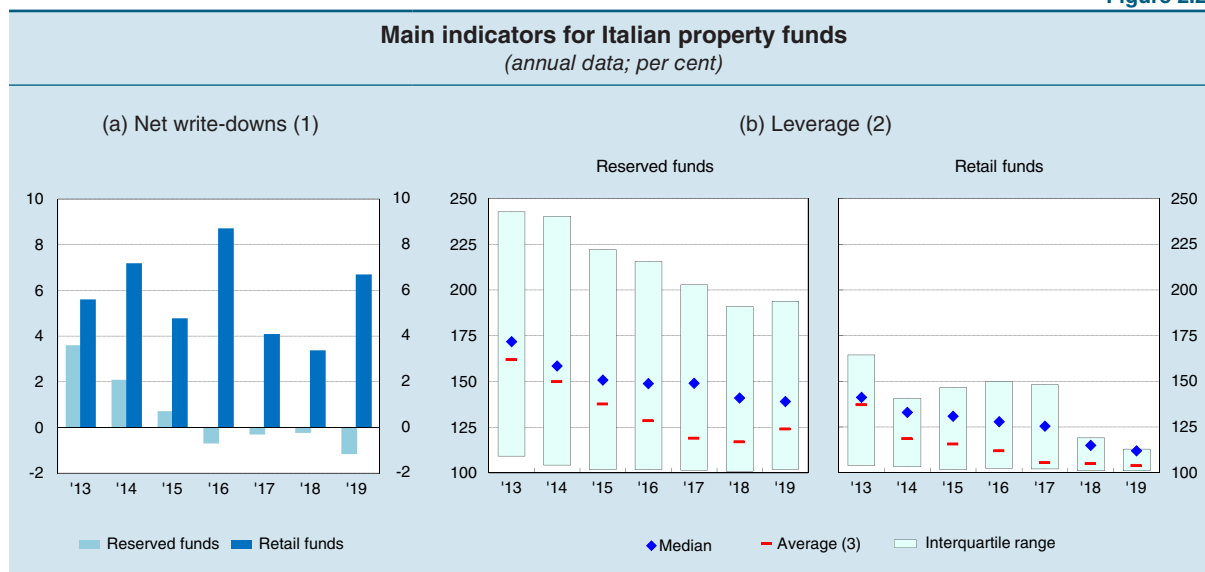
Figure 2.25



Source: Supervisory reports.

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

Figure 2.26



Source: Supervisory reports.

(1) Ratio of 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) Ratio of total assets to net equity. – (3) Weighted average with weights equal to the denominator of each ratio.

The effects of the pandemic on the economy and the property sector could have negative repercussions on asset valuations and worsen the solvency position of this segment. Nevertheless, the risks for financial stability are still limited. On average, leverage is at historically low levels (Figure 2.26.b) and the financial system's exposure to this sector is small (equal to about 1 per cent of total loans). Italian funds are not subject to the liquidity risk of high demand for redemptions in that national legislation requires them to be closed-end. Italian property fund maturities are distributed over a relatively long timespan: the funds that have to complete the sale of all portfolio assets by 2022, barring any deferrals allowed under their regulations, account for about 10 per cent of the net assets of the sector.

In the alternative funds sector, there was continued strong growth in funds that: provide direct financing; purchase loans originating from other intermediaries; or specialize in the purchase of mini-bonds. In the course of 2019, the value of the assets managed by such funds rose from €5 billion to €7 billion. A number of asset management companies were authorized to establish European long-term investment funds (ELTIFs). The potential risks to financial stability deriving from the investment in illiquid assets that characterizes these funds, whose total assets are still limited, are mitigated by the legislation which obliges them to be set up as closed-end, as well as by the prudential constraints on risk diversification and limits on the amount they can borrow. In the months to come, investor interest in these segments, which are relatively risky and rather illiquid, could be adversely affected by the current tensions on the financial markets and by the worsening expectations for economic growth.

3 MACROPRUDENTIAL MEASURES

The macrofinancial cycle in Italy was already weak before the spread of the COVID-19 pandemic. The expected difference between the credit-to-GDP ratio and its long-run trend (credit-to-GDP gap) was deep in negative territory and the flow of credit to firms was dwindling. The real-economy indicators closely linked to trends in macrofinancial conditions were also consistent with this assessment: the unemployment rate was still high and real house prices significantly below their long-term level. The Bank of Italy accordingly decided to keep the countercyclical capital buffer (CCyB) at zero per cent in the first two quarters of 2020 (Table 3.1).

Table 3.1

Recent macroprudential policy decisions of the Bank of Italy (1)			
Date	Decision	Capital requirement for this year (per cent)	Fully phased-in capital requirement (per cent) (2)
30 November 2019	Identification of the UniCredit, Intesa Sanpaolo, Banco BPM and Monte dei Paschi di Siena banking groups as other systemically important institutions (O-SIIs) authorized to operate in Italy and the setting of the related capital requirement ratios		
	UniCredit	0.75	1.00 (2021)
	Intesa Sanpaolo	0.56	0.75 (2021)
	Banco BPM	0.13	0.25 (2022)
	Banca Monte dei Paschi di Siena	0.13	0.25 (2022)
13 December 2019	Identification of the UniCredit Group as a global systemically important institution (G-SII) and setting of the related capital requirement (3)	1.00	1.00
20 December 2019	Setting of the CCyB rate for the first quarter of 2020	0.00	–
27 March 2020	Setting of the CCyB rate for the second quarter of 2020	0.00	–

(1) The dates given are those on which the decisions were published. For a complete list of the [macroprudential policy decisions](#) see the Bank of Italy's website. –

(2) In brackets, the year of full implementation. – (3) In accordance with European legislation, only the higher between the G-SII and the O-SII requirements will apply to the UniCredit Group.

Last December the Bank of Italy again identified the UniCredit Group as a global systemically important institution (G-SII). The methodology used to identify and classify G-SIIs, which was established by European law,¹ is based on a range of indicators, including size, complexity, and degree of interconnectedness and internationalization. As of 1 January 2020, the UniCredit Group has been required to maintain an additional capital buffer of 1 per cent of its total risk-weighted exposure.

¹ See Commission Delegated Regulation (EU) No 1222/2014, containing provisions consistent with those set out by the Basel Committee on Banking Supervision (BCBS) and the Financial Stability Board (FSB). The UniCredit Group belongs to the first subcategory of global systemic importance.

At domestic level, the Bank of Italy also identified the UniCredit, Intesa Sanpaolo, Banco BPM and Banca Monte dei Paschi di Siena banking groups as other systemically important institutions (O-SIIs) for 2020. The indicators used, as provided for in the EBA Guidelines, consider four characteristics: size, importance for the national economy, complexity and interconnectedness with the financial system.² Unlike last year, this year the Banca Monte dei Paschi di Siena banking group was again identified as an O-SII. The additional capital buffers that UniCredit, Intesa Sanpaolo, Banco BPM and Monte dei Paschi di Siena will be required to maintain will amount to, respectively, 1.00, 0.75, 0.25 and 0.25 per cent of total risk-weighted exposures, to be phased in gradually (Table 3.2). In accordance with European legislation, the higher between the G-SII and O-SII requirements will apply to the UniCredit Group.

Table 3.2

Transitional regime applicable to the O-SII buffers (per cent)			
Banking group	From 1 Jan. 2020	From 1 Jan. 2021	From 1 Jan. 2022
UniCredit	0.75	1.00	1.00
Intesa Sanpaolo	0.56	0.75	0.75
Banco BPM	0.13	0.19	0.25
Banca Monte dei Paschi di Siena	0.13	0.19	0.25

The SSM and the authorities in a number of European countries have adopted prudential measures designed to counter the negative effects of the pandemic on the real economy and on the banking system. The SSM has permitted the banks classified as significant to operate temporarily below the level of capital defined by the Pillar 2 Guidance, the capital conservation buffer and the liquidity coverage ratio.³ The Bank of Italy has extended this possibility to banks classified as less significant and to non-bank Italian financial intermediaries (see the box ‘Measures adopted by the supervisory authorities and effects on banks’, Chapter 2). The macroprudential measures undertaken in a number of EU Member States have mainly involved the release of the countercyclical capital buffer and of other macroprudential buffers (see the box ‘The macroprudential measures adopted in the European Union in response to the spread of COVID-19’).

THE MACROPRUDENTIAL MEASURES ADOPTED IN THE EUROPEAN UNION IN RESPONSE TO THE SPREAD OF COVID-19

To support banks’ ability to lend even when faced with potential losses stemming from the impact of COVID-19 on the real economy, the authorities in several European countries have approved

¹ By Paolo Garofalo.

² 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)* published on 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.

³ ECB, ‘ECB banking supervision provides temporary capital and operational relief in reaction to coronavirus’, press release, 12 March 2020. Based on estimates by the European Central Bank the common equity tier 1 capital (CET1) made available by the provision amounts to €120 billion.

the immediate full² or partial³ release of the CCyB and/or cancellations of scheduled increases⁴ (see the table). It was also announced that, in most cases, the CCyB will be maintained at zero for at least one year⁵ or for the whole of 2020.⁶

Countercyclical capital buffers in the EU countries (per cent)								
	Rate applied or announced prior to 11 March (1)				Rate currently applied or announced			
	Applied	As of	Announced	Expected as of	Applied	As of	Announced	Expected as of
Austria, Croatia, Cyprus, Estonia, Finland, Greece, Hungary, Italy , Latvia, Malta, Netherlands, Poland, Portugal, Romania, Slovenia, Spain	0.00	1.1.2016	–	–	0.00	1.1.2016	–	–
Belgium	0.00	1.1.2016	0.50	1.7.2020	0.00	1.1.2016	–	–
Bulgaria	0.50	1.10.2019	1.00 1.50	1.4.2020 1.1.2021	0.50	1.10.2019	–	–
Denmark	1.00	30.9.2019	1.50 2.00	30.6.2020 30.12.2020	0.00	12.3.2020	–	–
France	0.25	1.7.2019	0.50	2.4.2020	0.00	2.4.2020	–	–
Germany	0.00	1.1.2016	0.25	1.7.2020	0.00	1.1.2016	–	–
Ireland	1.00	5.7.2019	–	–	0.00	1.4.2020	–	–
Lithuania	1.00	30.6.2019	–	–	0.00	1.4.2020	–	–
Luxembourg	0.25	1.1.2020	0.50	1.1.2021	0.25	1.1.2020	0.50	1.1.2021
United Kingdom	1.00	28.11.2018	2.00	16.12.2020	0.00	11.3.2020	–	–
Czech Republic	1.75	1.1.2020	2.00	1.7.2020	1.00	1.4.2020	–	–
Slovakia	1.50	1.8.2019	2.00	1.8.2020	1.50	1.8.2019	–	–
Sweden	2.50	19.9.2019	–	–	0.00	16.3.2020	–	–

Source: European Systemic Risk Board (ESRB).

(1) 11 March is the date on which the public was notified of the first reductions in the CCyB.

Several countries have decided to eliminate or reduce the systemic risk buffer (SyRB)⁷ or to lower the capital buffers for systemically important institutions.⁸ In other cases, the implementation of

² Denmark, France, Ireland, Lithuania, the United Kingdom and Sweden.

³ The Czech Republic.

⁴ Belgium, Bulgaria, Denmark, France, Germany, the Czech Republic, Slovakia, and the United Kingdom.

⁵ Belgium, Ireland, Lithuania, Sweden, and the United Kingdom.

⁶ France and Germany.

⁷ The Netherlands (a reduction from the current 3 per cent to 2.5 for ING, to 2 per cent for Rabobank and to 1.5 per cent for ABN Amro), Finland (a reduction to zero for all banks), Estonia (a reduction from 1 per cent to zero for all banks), Poland (abolition of the SyRB). Ireland has postponed the introduction of the SyRB into its legislation.

⁸ In Finland and the Netherlands, the capital buffer for other systemically important institutions (O-SIIs) has been lowered for one bank (for the OP Group in Finland, from 2 to 1 per cent; for ABN AMRO Bank in the Netherlands, from 2 to 1.5 per cent); Cyprus has delayed the application of the transitional regime applicable to the O-SII buffers.

measures designed to counter the risks stemming from the property sector has been suspended⁹ as have other measures targeting borrowers.¹⁰

The authorities have flanked measures to release the capital buffers with recommendations to refrain from dividend distributions, share buy-backs and the payment of employee bonuses.

The total capital released in the euro area as a result of the measures adopted is estimated at more than €20 billion.¹¹ This includes both the release of the existing capital buffers and the cancellation of previously scheduled increases.

⁹ The Netherlands has postponed the introduction of a minimum level of risk weights on mortgage loans; Sweden has introduced the possibility of temporarily suspending the obligation to amortize loans for households and firms; the Czech Republic has raised the maximum limits on loan-to-value and debt-service-to-income ratios (from 80 to 90 per cent and from 45 to 50 per cent, respectively) and has removed the limit on the debt-to-income ratio.

¹⁰ In Portugal, for personal loans of up to two years designed to mitigate temporary shortages in household liquidity, until 30 September 2020, borrowers will no longer have to comply with the maximum limit envisaged for the debt-service-to-income ratio and will no longer be bound by the obligation to reimburse capital and interest payments regularly.

¹¹ ECB, 'Macroprudential measures taken by national authorities since the outbreak of the coronavirus pandemic', 15 April 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)	
	2020	2021	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
	2020	2021	2020	2021	2020	2019	2019	2018	2019	2019	2019	2019
Italy	-9.1	4.8	155.5	150.4	6.8	34.6	-4.8	2.1	41.2	68.4	3.0	-1.7
Germany	-7.0	5.2	68.7	65.6	5.9	54.3	-4.9	2.2	54.6	59.8	7.1	71.2
France	-7.2	4.5	115.4	116.4	7.8	58.7	-7.9	0.2	61.9	153.2	-0.7	-23.3
Spain	-8.0	4.3	113.4	114.6	7.5	57.0	-7.2	1.8	56.9	93.1	2.0	-74.0
Netherlands	-7.5	3.0	58.3	58.1	7.5	46.6	-5.6	2.8	99.8	158.2	10.2	89.2
Belgium	-6.9	4.6	114.8	114.8	10.0	68.6	-7.2	4.8	61.9	152.4	-1.2	47.2
Austria	-7.0	4.5	84.6	81.0	10.4	79.1	-6.0	2.3	49.6	90.4	2.6	9.6
Finland	-6.0	3.1	70.0	71.6	6.3	67.9	-6.5	3.6	66.2	114.5	-0.8	1.7
Greece	-10.0	5.1	200.8	194.8	....	....	-5.1	....	53.3	54.5	-1.4	-150.6
Portugal	-8.0	5.0	135.0	128.5	6.4	57.6	-4.0	-0.3	63.9	96.8	-0.1	-100.8
Ireland	-6.8	6.3	63.3	60.0	10.8	65.4	-3.9	2.9	38.8	189.8	-9.4	-172.0
Euro area	-7.5	4.7	97.4	95.6	....	....	-6.0	1.8	57.9	107.6	2.7	-0.5
United Kingdom	-6.5	4.0	95.7	95.8	14.8	36.1	-7.2	4.3	83.9	81.5	-3.8	-23.2
United States	-5.9	4.7	131.1	131.9	5.8	29.4	-13.5	....	75.2	75.3	-2.3	-51.3
Japan	-5.2	3.0	251.9	247.6	8.2	12.2	-7.1	....	58.6	102.9	3.6	60.1
Canada	-6.2	4.2	109.5	108.6	5.4	22.9	-11.5	....	101.6	115.1	-2.0	40.5

Sources: IMF, ECB, BIS, European Commission.

(1) IMF, *World Economic Outlook*, April 2020. – (2) IMF, *Fiscal Monitor*, April 2020. – (3) European Commission, *Fiscal Sustainability Monitor 2019*, January 2020. 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 Q4 2019; data for the United Kingdom and non-European countries are from BIS statistics and refer to the end of Q3 2019. – (5) The data refer to Q4 2019. Data for the euro area countries are from ECB, Statistical Data Warehouse; data for the United Kingdom and non-European countries are from IMF, Data Warehouse.

Table A2

Italian banks' non-performing loans and guarantees by counterparty sector (1)
(billions of euros; per cent; December 2019)

	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
Firms (4)							
Non-performing customer loans	96	14.6	43	7.2	46	20	63.5
<i>of which:</i> manufacturing	18	10.5	8	4.5	6	4	64.4
construction (5)	26	36.0	11	19.9	14	5	65.9
services	45	13.2	21	6.7	23	10	61.7
<i>of which:</i> bad loans	50	7.7	17	2.8	22	14	75.4
<i>of which:</i> manufacturing	10	5.4	3	1.7	3	3	78.1
construction (5)	14	19.0	5	8.3	7	3	75.1
services	24	7.1	8	2.6	11	7	74.4
Consumer households							
Non-performing customer loans	22	4.4	12	2.5	14	1	67.4
<i>of which:</i> bad loans	12	2.3	5	1.0	7	1	78.6
Total (6)							
Non-performing customer loans	124	8.2	58	4.0	62	21	63.1
<i>of which:</i> bad loans	64	4.2	23	1.6	30	14	75.7

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 December 2019 came to about €2 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 A3

Exposures of Italian groups and banks to foreign residents by counterparty sector (1) (billions of euros; per cent; December 2019)							
	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)	143.9	64.0	46.1	198.9	452.9	8.4	17.5
Other industrialized countries	38.5	20.4	28.8	35.4	123.0	1.2	4.8
of which: United Kingdom	1.8	10.3	14.3	7.6	34.1	1.9	1.3
Emerging and developing countries	50.9	18.7	8.4	109.6	187.6	3.7	7.3
Europe	38.6	8.0	4.8	90.6	142.0	14.5	5.5
of which: Russia	2.2	1.8	0.6	17.5	22.0	24.2	0.9
Turkey	0.6	3.9	1.9	12.6	19.0	6.9	0.7
Africa and the Middle East	8.9	5.2	3.0	12.9	30.0	2.9	1.2
Asia and Pacific	2.0	2.9	0.6	3.3	8.7	0.4	0.3
Central and South America	1.4	2.7	0.0	2.8	6.9	0.6	0.3
of which: Argentina	0.0	0.0	0.0	0.0	0.1	0.2	0.0
Brazil	0.1	2.5	0.0	0.7	3.3	0.7	0.1
Mexico	0.3	0.1	0.0	1.1	1.5	0.4	0.1
Offshore centres	0.3	0.3	2.8	5.5	8.9	0.3	0.3
Total	233.5	103.4	86.1	349.3	772.4	3.0	29.9
<i>Memorandum item</i>							
Energy-exporting emerging and developing countries (4)	7.8	4.0	0.8	21.1	33.7	6.1	1.3

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

(1) On-balance-sheet exposures to 'ultimate borrower', gross of bad loans and net of provisions. Does not include BancoPosta and Cassa Depositi e Prestiti. As of 31 December 2019 it includes the exposures of jointly controlled non-resident banks and financial corporations. – (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 September 2019. – (3) The denominator refers to total exposures to residents and non-residents. – (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 A4

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 – Q1	366,322	547	10.6	1,328,565	30,283	4.3
Q2	369,482	3,950	10.6	1,325,197	-5,520	4.2
Q3	353,172	-16,364	10.3	1,257,295	-69,985	4.0
Q4	333,329	-14,779	9.8	1,205,130	-44,060	3.9
2017 – Jan.	336,266	6,586	10.0	1,198,661	1,496	3.9
Feb.	339,458	2,996	10.0	1,201,775	1,902	3.8
Mar.	349,081	10,286	10.1	1,205,394	4,622	3.8
Apr.	350,322	2,508	10.2	1,201,813	-3,846	3.8
May	341,318	-9,751	10.1	1,194,047	-8,922	3.8
June	323,068	-19,751	9.5	1,160,056	-33,965	3.7
July	326,959	3,629	9.6	1,150,184	-10,258	3.7
Aug.	325,690	-1,361	9.7	1,155,126	3,749	3.7
Sept.	319,447	-5,658	9.5	1,144,864	-7,585	3.7
Oct.	309,543	-11,993	9.2	1,120,116	-21,698	3.6
Nov.	295,727	-14,557	8.7	1,108,684	-13,849	3.6
Dec.	283,734	-9,649	8.5	1,074,168	-31,628	3.5
2018 – Jan.	293,267	9,483	8.7	1,094,905	20,592	3.6
Feb.	295,690	2,591	8.9	1,092,268	-1,692	3.6
Mar.	296,365	-1,311	8.8	1,083,121	-13,458	3.5
Apr.	298,592	2,074	8.8	1,073,878	-9,494	3.5
May	307,126	22,572	9.0	1,085,979	30,517	3.5
June	321,700	12,693	9.5	1,093,859	4,581	3.5
July	324,557	3,727	9.7	1,088,853	-3,398	3.5
Ago.	317,692	559	9.5	1,078,814	359	3.5
Sept.	320,687	-334	9.5	1,073,697	-9,145	3.5
Oct.	323,906	5,530	9.7	1,068,237	-2,849	3.4
Nov.	328,468	1,879	9.9	1,073,916	2,522	3.4
Dec.	318,441	-15,491	9.7	1,054,143	-26,687	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.	315,802	-881	9.4	1,028,034	-9,411	3.1
Feb.	320,168	6,873	9.5	1,037,264	12,645	3.0
Mar. (4)	335,556	19,620	9.9	....	....	....

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. – (4) Preliminary data.

Table A5

Italian banks' bonds by holder and maturity (1)
(millions of euros; March 2020)

	Maturity						Total
	by 2020	by 2021	by 2022	between 2023 and 2024	between 2025 and 2029	beyond 2030	
Households (2)	7,889	9,820	10,811	13,838	14,776	340	57,474
of which: senior non-preferred bonds	–	–	5	21	18	1	45
subordinated bonds	1,096	1,346	1,615	1,005	4,402	116	9,579
Banks in the issuer's group (3)	2,114	2,514	4,016	7,760	11,473	2,651	30,528
of which: senior non-preferred bonds	–	–	–	–	–	–	–
subordinated bonds	96	61	62	465	274	224	1,182
Other Italian banks	3,478	3,680	5,513	8,506	6,312	472	27,961
of which: senior non-preferred bonds	–	–	70	454	666	26	1,217
subordinated bonds	109	64	55	102	838	18	1,187
Other investors	15,912	18,960	30,921	41,386	55,343	13,512	176,033
of which: senior non-preferred bonds	–	–	684	2,161	2,995	708	6,547
subordinated bonds	1,709	1,227	1,885	3,737	12,365	3,969	24,893
Total	29,392	34,973	51,261	71,490	87,904	16,975	291,996
of which: senior non-preferred bonds	–	–	760	2,636	3,679	735	7,809
subordinated bonds	3,011	2,698	3,617	5,309	17,879	4,327	36,842

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 A6

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
						June	December	March
Total	283.5	253.7	297.3	321.2	310.5	303.0	285.8	344.6
Government securities	119.8	97.6	88.8	105.8	78.0	73.3	68.1	115.8
Local and regional government securities	2.9	2.6	1.7	1.9	1.3	1.2	0.5	1.5
Uncovered bank bonds	10.4	5.8	5.3	5.4	5.0	3.9	3.3	3.5
Government-guaranteed bank bonds	15.0	0.4	0.3	1.3	2.5	3.6	1.0	0.5
Covered bonds	49.8	46.4	76.3	76.8	91.3	92.7	86.1	91.0
Non-bank bonds	1.0	2.5	3.0	3.0	4.3	3.8	3.7	4.6
Asset-backed securities	40.0	35.5	44.0	49.9	49.7	46.9	47.7	45.2
Other marketable assets	0.4	0.6	0.8	2.8	1.3	0.7	1.8	2.0
Non-negotiable assets (bank loans)	44.3	62.4	77.1	74.3	77.1	77.0	73.6	80.5

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 A7

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 flows (2)	Counterbalancing capacity	Liquidity indicator (3)
2016 – Aug.	-2.0	15.4	13.4	-7.1	22.5	15.3
Sept.	-2.1	15.3	13.2	-6.3	21.9	15.6
Oct.	-1.9	15.2	13.3	-4.1	21.1	17.0
Nov.	-2.2	15.3	13.1	-4.3	23.4	19.1
Dec.	-2.6	14.9	12.3	-4.2	20.3	16.1
2017 – Jan.	-2.1	14.2	12.1	-5.2	19.3	14.1
Feb.	-2.4	14.8	12.4	-5.3	19.3	14.1
Mar.	-1.5	13.6	12.1	-2.9	17.6	14.7
Apr.	-0.3	13.0	12.7	-5.0	20.6	15.6
May	-0.4	13.7	13.3	-4.1	19.5	15.4
June	-0.4	14.0	13.6	-3.5	18.8	15.3
July	0.0	13.5	13.5	-3.7	18.6	14.9
Ago.	0.0	13.9	13.9	-3.4	18.8	15.4
Sept.	0.6	13.5	14.1	-2.7	18.9	16.2
Oct.	0.5	13.2	13.7	-1.1	18.1	17.0
Nov.	1.0	13.4	14.4	-0.7	17.3	16.6
Dec.	0.2	13.5	13.7	-0.7	16.8	16.1
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
2019 – 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.	-1.0	18.9	17.9	-5.2	22.3	17.1

Source: Data transmitted to the Bank of Italy by a sample of 24 banking groups for periodic monitoring of their liquidity positions.

(1) Monthly averages based on weekly reports for 12 significant banks (supervised directly by the ECB) and 12 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.

Table A8

Main macroprudential instruments for the banking sector (1)	
INSTRUMENT	PURPOSE
Instruments harmonized at European level (2)	
Countercyclical capital buffer	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	To increase the ability of systemically important institutions to absorb losses
Systemic risk buffer	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 and in 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.