



BANCA D'ITALIA  
EUROSISTEMA

# Financial Stability Report

May 2019

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**BANCA D'ITALIA**  
EUROSISTEMA

# **Financial Stability Report**

**Number 1 / 2019**  
**May**

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## **SYMBOLS AND CONVENTIONS**

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Unless indicated otherwise, figures have been computed by the Bank of Italy.

In the following tables:

- the phenomenon in question does not occur
- .... the phenomenon occurs but its value is not known
- .. the value is known but is nil or less than half the final digit shown
- :: the value is not statistically significant
- () provisional

In the figures with different right-hand and left-hand scales, only the right-hand scale is recalled in the note.

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

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## OVERVIEW

*The risks to financial stability posed by developments in the world economy are growing. Manufacturing activity has slowed, and trade tensions are adversely affecting global commerce. The growth forecasts for 2019 have been revised downward and uncertainty has increased.*

*The more accommodative stance of central banks has been helping to improve financial market conditions since the start of the year. Financial asset prices could nonetheless fluctuate widely following unexpected macroeconomic events.*

*Bank asset quality is improving in the euro area, but several intermediaries are struggling to achieve satisfactory levels of profitability. A few large banks are highly exposed to instruments that are difficult to value and potentially illiquid.*

*GDP growth forecasts have been revised downward in Italy too. Italian government securities prices remain highly volatile and yield spreads with respect to German bonds are above the levels predominating in the early months of 2018. While declining, the yields on non-financial corporate bonds remain higher on average than those prevailing in the other euro-area countries for bonds in the same credit rating category.*

*Households' financial conditions are stable but have been affected by the slowdown in disposable income and by volatile financial asset prices. Firms' profitability is slowing but debt repayment capacity remains strong thanks to low interest rates and sounder balance sheet structures than in the past. Private sector debt at risk of default would increase considerably only in the event of a significant deterioration*

*in cyclical conditions associated with a sharp rise in borrowing interest rates.*

*Italy's banking system continues to strengthen but, given the deterioration in the economic outlook, significant risks remain. The reduction in the stock of NPLs continues apace, and liquidity and capital indicators are improving. Notwithstanding the increase in 2018, the return on equity remains lower on average than that of the other European banks. Slowing economic activity limits the possibility of increasing revenues and could push up credit risk costs again.*

*Italian banks are vulnerable to negative developments on the government bond market, even if the impact of price variations on capital is smaller than in the past. Bond issues on the wholesale markets have resumed but the risk premiums demanded by investors are higher than those demanded on average for other European banks.*

*Insurance companies' solvency ratios and profitability remain exposed to changes in the value of public sector securities due to substantial investments made to match the yields and maturities of assets with those of liabilities. At the end of 2018, solvency ratios stabilized at levels well above the regulatory minimums. The stress tests conducted by EIOPA and IVASS confirm that Italy's main insurance groups would be able to withstand the impact of particularly severe shocks.*

*Property funds continue to grow, sustained by flows of foreign resources into the segment reserved to professional investors; the risks to financial stability stemming from this sector's development are limited.*



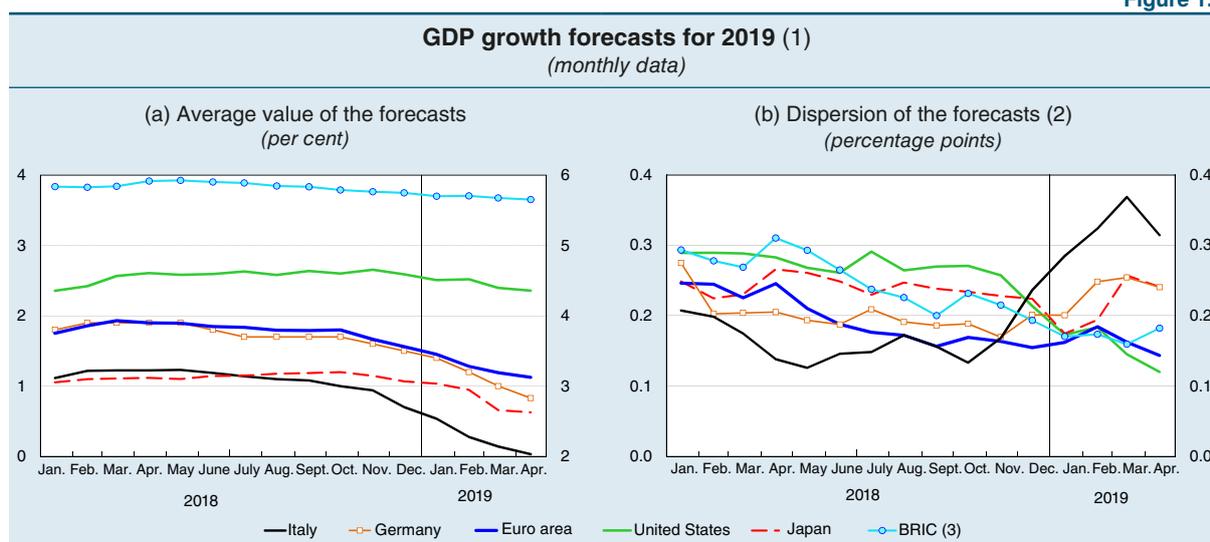
# 1 MACROECONOMIC RISKS AND RISKS BY SECTOR

## 1.1 MACROECONOMIC RISKS

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

The risks to financial stability posed by developments in the world economy are growing. Weakening manufacturing in the main advanced economies and trade tensions between the United States and China are adversely affecting global commerce and are increasing uncertainty about the outlook for growth, especially in those economies most heavily dependent on foreign demand, such as Germany and Italy (Figure 1.1).

Figure 1.1



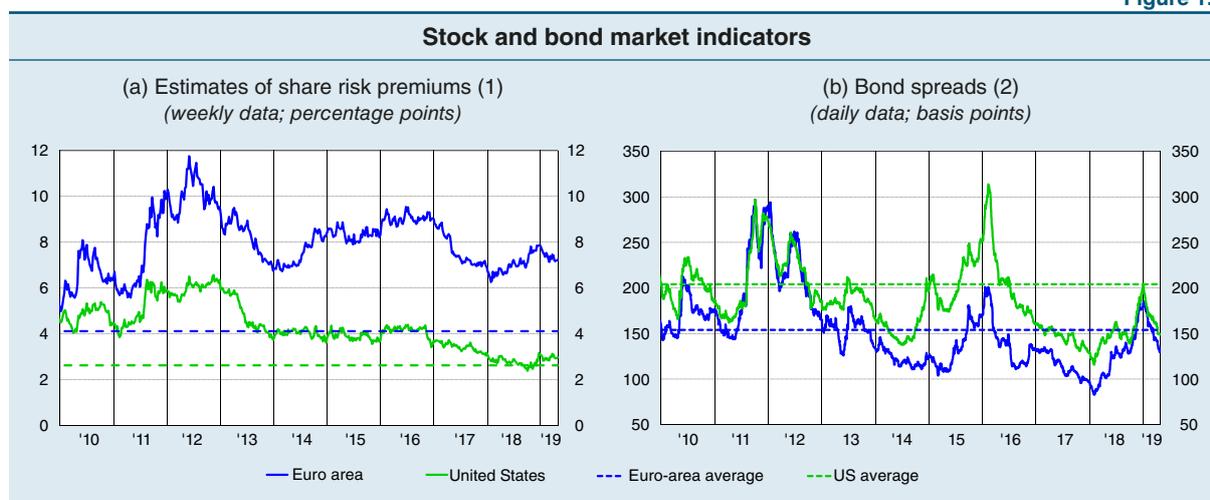
Source: Based on Consensus Economics data.

(1) Forecasts made in the month shown on the horizontal axis. – (2) Standard deviation of forecasts – (3) Average of the forecasts for Brazil, Russia, India and China, weighted on the basis of each country's GDP in 2017 at purchasing power parity. Right-hand scale.

The prices of financial assets are exposed to sudden shifts in risk premiums, which may be triggered by unexpected macroeconomic events. Signs of an economic slowdown led to episodes of pronounced volatility in international stock markets between late 2018 and early 2019. Conditions in the financial markets improved following announcements by the Federal Reserve and the European Central Bank (ECB) of their intention to continue to maintain an expansionary monetary policy. Exchange rate volatility lessened and the currencies of the emerging countries strengthened compared to the dollar. The risk premiums on shares and bonds also decreased (Figure 1.2); in the United States risk premiums on debt securities are well below long-term average values.

On 10 April the European Council agreed to offer the United Kingdom an extension until 31 October 2019 to allow the UK to complete its withdrawal from the European Union (Brexit).

Figure 1.2



Sources: ICE Bank of America Merrill Lynch and Thomson Reuters Datastream.

(1) For S&P 500 (US) and Datastream EMU Total Market (euro area), ratio of the 10-year moving average of earnings per share to the value of the stock index (both at constant prices). We deduct from the resulting ratio, which is an estimate of the expected real return on the shares, the real return on inflation-indexed 10-year government bonds to obtain an estimate of the share risk premium. The dashed lines indicate the averages of the risk premiums from 1993 to 2019. – (2) Spreads are on BBB-rated bonds issued by non-financial corporations. The dashed lines indicate the averages of spreads from 2000 to 2019.

The extension does not eliminate the risk that the UK could withdraw without an agreement (no-deal Brexit). The EU and the member states have taken measures to ensure the operational continuity of financial markets and intermediaries and to mitigate the risks to financial stability in the event the British Parliament fails to ratify the agreement. Italy has issued a decree law that ensures that intermediaries and trading venues (both Italian ones operating in the UK and British ones operating in Italy) are able to continue to operate for a transitional period of 18 months in the event of a no-deal Brexit.<sup>1</sup>

The asset quality of euro-area banks is continuing to improve on average. In some countries the level of non-performing loans remains significant, while others have large stocks of complex financial instruments and exposure to market risk. Many banks are struggling to improve their revenue and to achieve satisfactory levels of profitability that guarantee adequate self-financing flows and promote the injection of external capital.<sup>2</sup>

### *Macrofinancial conditions in Italy*

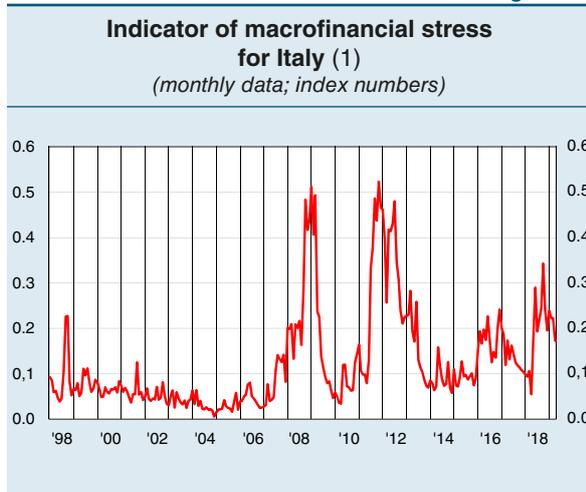
Since November tensions in the market for stocks of financial intermediaries and in the bond market have eased, but prices remain well below those recorded in the first half of 2018. The indicator of macrofinancial stress for Italy has remained high (Figure 1.3; see the box ‘The financial condition index for Italy’).

The financial cycle is continuing to weaken: lending to households is rising at a modest pace (see Section 1.2) while the recovery in lending to firms has halted. The bank credit-to-GDP gap

<sup>1</sup> For more information, see *Audizione nell’ambito dell’esame del Decreto Legge 22/2019 ‘Sicurezza e stabilità finanziaria in caso di recesso del Regno Unito dall’Unione europea’*, testimony of the Deputy Head of the International Relations and Economic Directorate of the Bank of Italy, Pietro Antonio Catte, before the Italian Senate in Rome on 9 April 2019.

<sup>2</sup> The ratio of profits to equity for a sample of large European banks was around 5 per cent at the end of last year, 6 percentage points below what was reported for an analogous sample of US banks and much lower than the values recorded for the years preceding the 2008 financial crisis.

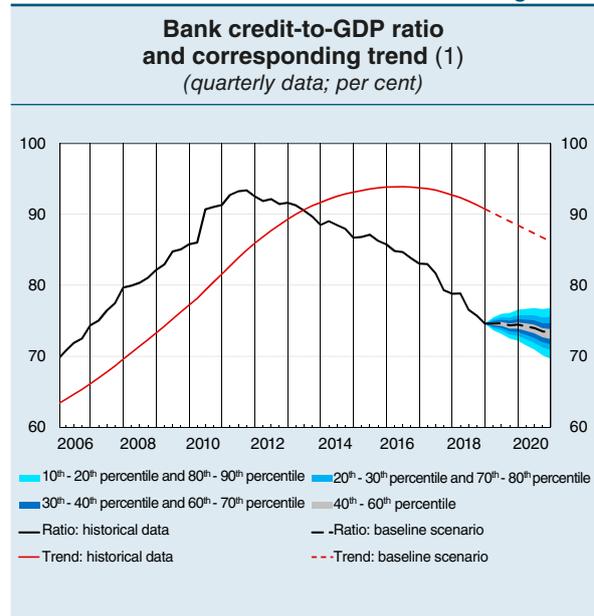
Figure 1.3



Source: Based on Thomson Reuters Datastream data.  
 (1) The index ranges from 0 (minimum risk) to 1 (maximum risk).

is markedly negative. Our projections, which are consistent with the latest macroeconomic developments, suggested that lending, especially to firms, would remain weak; over the next two years the bank credit-to-GDP ratio is expected to stay below its long-term trend even if credit growth were notably faster than that posited in the consensus scenario (Figure 1.4).

Figure 1.4



Sources: Based on Bank of Italy and Istat data.  
 (1) The projections do not take account of any securitizations. The probability distribution of the projections, shown here by percentile classes, makes it possible to assess the size of the risks that characterize the scenario deemed most likely (baseline scenario). The distribution takes account of asymmetric shocks to the main risk factors, following the procedure described in C. Miani and S. Siviero, 'A non-parametric model-based approach to uncertainty and risk analysis of macroeconomic forecasts', Banca d'Italia, Temi di Discussione (Working Papers), 758, 2010. The long-term trend is calculated using a one-sided Hodrick-Prescott filter.

## THE FINANCIAL CONDITION INDEX FOR ITALY<sup>1</sup>

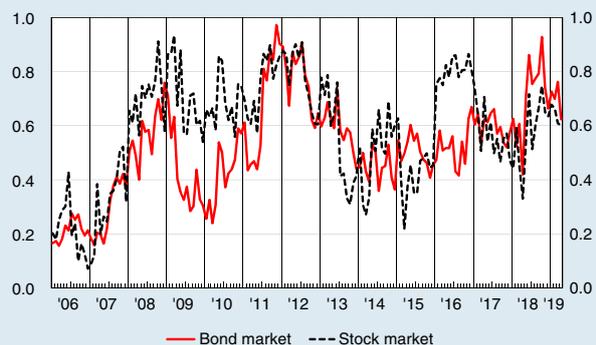
The financial condition index for Italy provides information on macroeconomic stress affecting the economy. It is constructed by aggregating measurements of stress for Italy's five major markets: (a) the bond market, including government securities; (b) the market for stocks of financial intermediaries; (c) the equity market; (d) the money market; and (e) the foreign exchange market.<sup>2</sup>

The index closely tracks the main episodes of distress at the global level (beginning with the collapse of Lehman Brothers in

<sup>1</sup> By Arianna Miglietta.

<sup>2</sup> The financial stress indicators used for the individual markets include yield spreads, volatility and maximum losses. 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.

## Stress index for the bond and stock markets (1) (monthly data; index number)



Source: Based on Thomson Reuters Datastream data.  
 (1) The bond market includes government securities. The stock market refers to the shares of listed financial corporations. The index ranges from 0 (minimum risk) to 1 (maximum risk).

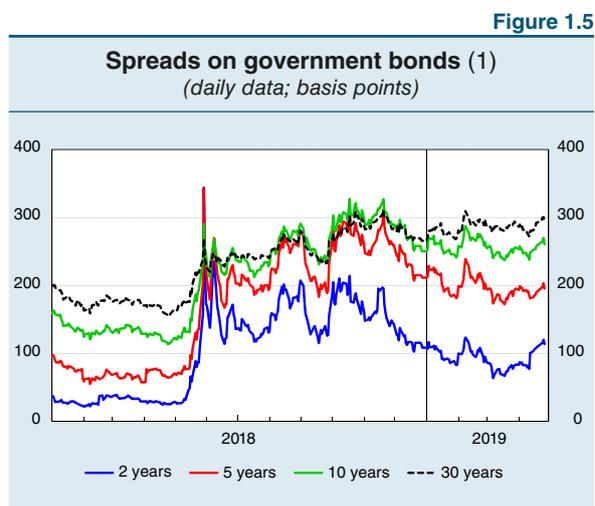
September 2008; see Figure 1.3), and those that affected the Italian financial markets specifically (the sovereign debt crisis in 2011-12). Last year the value of the index rose although it stayed below the levels reached during the global financial crisis and the sovereign debt crisis; the increase mostly reflected developments in the bond market and in the share prices of financial corporations (see the figure).

In the past, high levels of financial stress preceded an economic slowdown: a deterioration in the index equal to one standard deviation, about 0.1 units, was associated with reduced growth of around 0.9 percentage points over the subsequent twelve months.<sup>3</sup>

<sup>3</sup> This value measures a correlation and cannot be interpreted as an estimate of the direct impact of financial shocks on the economy. Since the change in GDP may not be entirely attributable to evolving financial conditions, this value represents an upper limit of the impact.

The GDP growth forecasts have been revised downward compared with last November, both for this year and for 2020, and uncertainty has increased. The high public debt makes the Italian economy vulnerable to financial market tensions and limits the capacity of fiscal policy to support productive activity during slowdowns.

Risk premiums on Italian government securities have fallen since November, but are still higher than they were in April 2018 (Figure 1.5). Strains on government securities are being transmitted to the cost of financing for the private sector, albeit gradually (see Sections 1.2 and 2.1). If the yields at issue of Italian government securities remain consistent with current market expectations, in 2019-20 the total interest payments on the public debt should be around €4 billion higher than they would have been at the rates expected by the market in April of last year.



In 2018 the debt-to-GDP ratio increased to 132.2 per cent from 131.4 per cent in 2017.<sup>3</sup> According to the 2019 Economic and Financial Document approved by the Government on 9 April, the debt is expected to continue to grow this year and to begin to fall starting in 2020, due in part to the increase in the indirect tax rates already included in current legislation.

The macroeconomic risks to financial stability are accentuated by weakening world growth as well as domestic vulnerabilities. The Italian economy is nonetheless resilient to these risks, owing to a variety of factors: the current account of the balance of payments has shown a surplus since 2013, while Italy's net international investment position is slightly negative and should turn positive next year; household wealth is high and private sector debt is among the lowest in the euro area; the

<sup>3</sup> Data adjusted following the change in the perimeter of general government by Istat in agreement with Eurostat (see the Bank of Italy's press release of 9 April 2019, 'Revised estimates of general government debt for 2015-18').

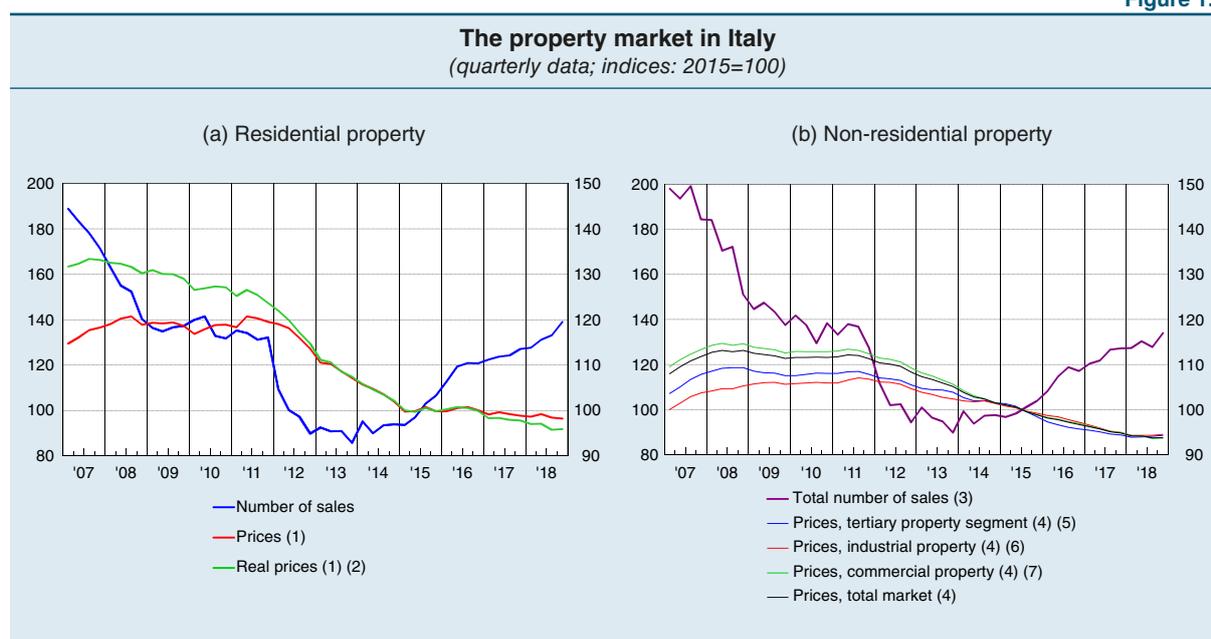
high average residual maturity of government securities slows down the transmission of an increase in yields at issue to the average cost of the debt (see Table A1 in *Selected Statistics*).

Rating agencies Fitch Ratings and Standard & Poor's, recognizing these strengths, kept the credit ratings for Italian government securities unchanged at BBB in February and April respectively. Both rating agencies, however, maintained a negative outlook, indicating the expected direction of any future rating adjustments. Downward revisions to the credit rating by the agencies could have significant negative effects on Italy's financial system (see the box 'The effects of changes in the ratings of Italian government securities', in *Financial Stability Report*, 2, 2018).

### Real estate markets

The real estate cycle in most European countries is still in an expansionary phase and in some countries rising prices are increasing the risks to financial stability. In Italy, however, the sector is struggling to gain traction: the number of sales is rising, but prices for both the residential and non-residential property sectors continue to decrease (Figure 1.6). According to our estimates, house prices are expected to decline, albeit slightly, in 2019 as well. The expectations of the real estate agents interviewed for the Italian Housing Market Survey are consistent with a softness in short-term prices, although they remain moderately positive about overall market conditions.

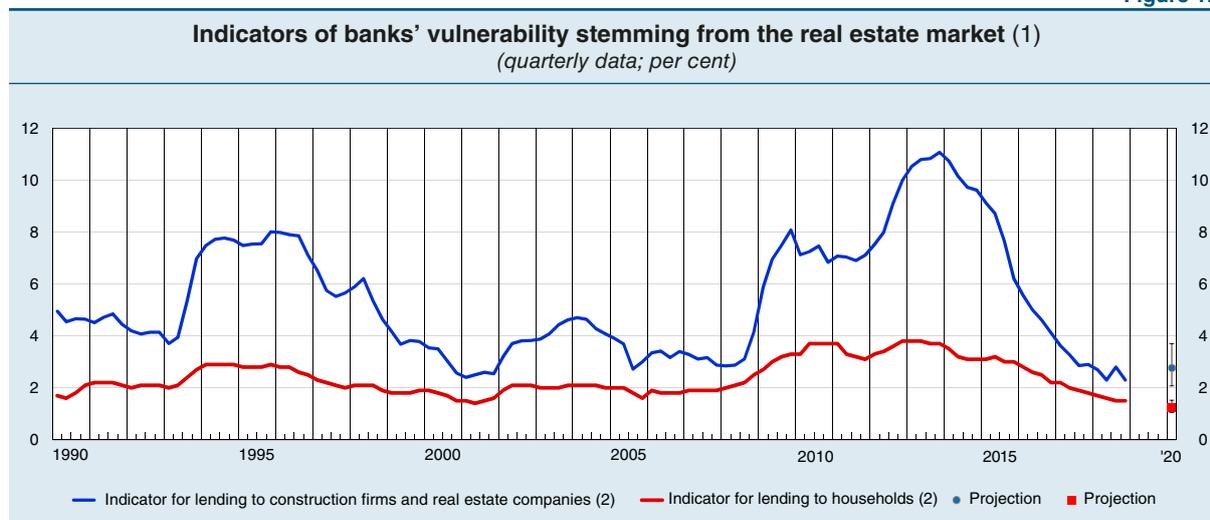
Figure 1.6



Sources: Based on data from the Bank of Italy, Istat, Osservatorio del Mercato Immobiliare (OMI), Nomisma and Scenari Immobiliari. (1) Right-hand scale. – (2) Data deflated using the change in consumer prices. – (3) Data adjusted for seasonal and calendar effects. – (4) The indicator, still experimental, uses data drawn from transactions actually concluded on the market. Right-hand scale. – (5) The tertiary segment comprises office buildings and banks. – (6) Industrial property consists of buildings for industrial use. – (7) Commercial property comprises shops, shopping centres and hotels.

In the fourth quarter of 2018 the indicators that measure banks' vulnerability stemming from the real estate sector remained low (Figure 1.7). Based on our projections, the indicator for households will record another decline, while that for construction firms and real estate companies will increase at the start of 2020. The continuing weakness of the sector makes it more costly to dispose of non-performing loans backed by collateral in the form of property.

Figure 1.7



(1) Banks' 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 projection for the 1st quarter of 2020, the graph shows the median and the 10th and 90th percentiles. 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 arising from the real estate market in Italy: an update', Banca d'Italia, Questioni di Economia e Finanza (Occasional Papers), 493, 2019. – (2) The vulnerability indicators for the period 1990-2005 are reconstructed using econometric techniques.

## 1.2 HOUSEHOLDS AND FIRMS

### Households

Households' financial conditions are stable but the slowdown in disposable income and volatile financial asset prices have had some negative effects. The share of debt at risk of default would increase considerably only in the event of a very large drop in income associated with a sharp rise in interest rates.

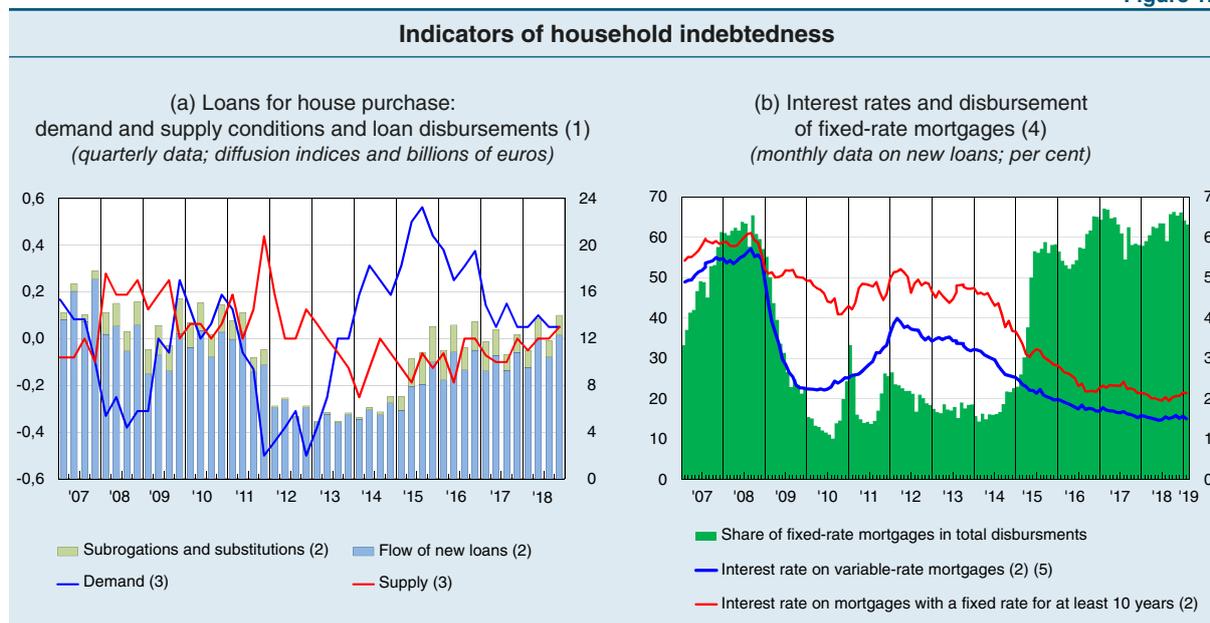
In the early months of the year, rising equity and bond market prices enabled only a partial recovery of the losses registered in 2018. In the second half of last year, as market price volatility increased, households shifted investment towards low-risk instruments, especially bank and postal deposits.

Indebtedness towards banks continues to grow (3 per cent in February compared with one year earlier) but remains low by international standards. Both mortgage loans for house purchase (Figure 1.8.a) and consumer credit loans increased. The rate of growth of the latter, which is closely linked to the business cycle, peaked in the second quarter of 2018 and is now declining.

The increase in the yields on government securities is gradually being transmitted to the cost of new loans (Figure 1.8.b). Compared with last September, the margins applied by banks to fixed-rate mortgage loans have risen by almost 50 basis points, while those for variable-rate mortgage loans remained stable; the difference is likely due to the need for banks to offset the increase in the cost of bond funding. The share of new loans with a fixed rate for at least ten years has narrowed from 66 to 63 per cent. Should the cost gap between fixed- and variable-rate loans continue to widen, the shift towards the latter could proceed rapidly, as happened in 2009, increasing households' exposure to risks of future rises in market yields.

The cost of debt is nevertheless still very low compared with the past; this is having a positive effect on its sustainability. The annual non-performing loan rate on credit granted by banks and financial companies has come down to 1.0 per cent, half that prevailing in the years preceding the financial

Figure 1.8



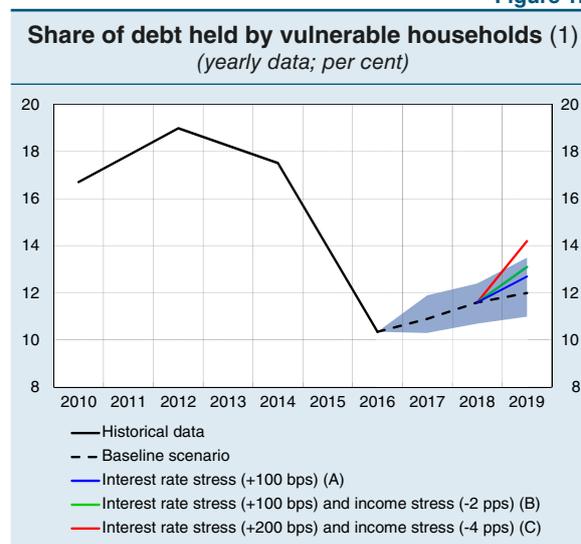
crisis; that relative to consumer credit alone has stabilized at 1.7 per cent.<sup>4</sup>

The projections of the Bank of Italy’s microsimulation model, which are based on a scenario consistent with the latest macroeconomic forecasts,<sup>5</sup> indicated that at the end of 2019 the share of vulnerable households and the ratio of their debts to the total would rise slightly, to 2.3 and 12.0 per cent respectively (Figure 1.9). Contributory factors include growth in consumer credit and the slowdown in income (see the box ‘The effects of consumer credit and mortgage renegotiations on households’ financial vulnerability’). If trends in income and interest rates prove more unfavourable, then the share of debt at risk would reach 13.1 per

<sup>4</sup> Assofin, CRIF and Prometeia, *Osservatorio credito al dettaglio*, 45, 2018. The data refer to the third quarter of 2018.

<sup>5</sup> This scenario hypothesizes a moderate increase in nominal disposable income, an expansion in debt slightly below that recorded in 2018 and stable interest rates. For more 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), forthcoming.

Figure 1.9



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

(1) Households are considered vulnerable when their debt-service ratio is above 30 per cent and their equivalized disposable income is below the median. The latest SHIW data available refer to 2016. The shaded area represents the interval between the 10th and the 90th percentiles of the probability distribution in the simulations. Compared with the baseline scenario, in 2019: (A) the 3-month Euribor, the 10-year interest rate swap (IRS) and the interest rate on consumer credit are 100 basis points higher; (B) the 3-month Euribor, the 10-year IRS and the interest rate on consumer credit are 100 basis points higher and the growth rate of nominal income is 2 percentage points lower; and (C) the 3-month Euribor, the 10-year IRS and the interest rate on consumer credit are 200 basis points higher and the growth rate of nominal income is 4 percentage points lower.

cent of the total.<sup>6</sup> In a particularly adverse scenario, characterized by greater changes than those recorded historically, the share of vulnerable households would rise to 2.7 per cent and their share of total debt would rise to 14.2 per cent, a level nevertheless below the peak in 2012.

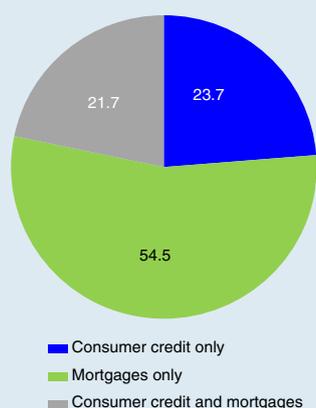
## THE EFFECTS OF CONSUMER CREDIT AND MORTGAGE RENEGOTIATIONS ON HOUSEHOLDS' FINANCIAL VULNERABILITY<sup>1</sup>

The Bank of Italy's microsimulation model for assessing risks to financial stability stemming from households' indebtedness has been revised to take account of trends in consumer credit and of mortgage renegotiations, improving its forecasting capability.<sup>2</sup>

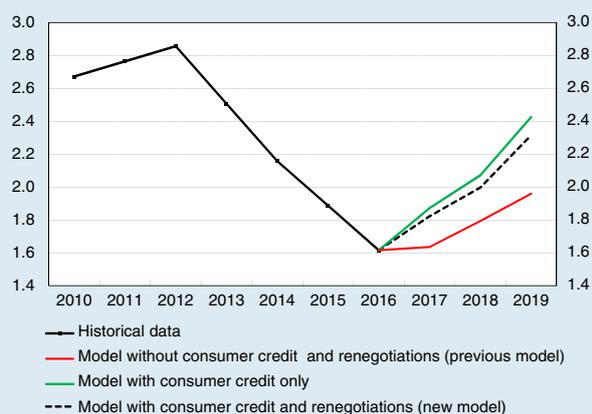
Consumer credit has expanded at a very fast pace since 2015. Based on data from the Survey on Household Income and Wealth (SHIW), 45 per cent of vulnerable households have taken out consumer credit loans (see panel (a) in the figure) and are much more frequently in arrears than borrowers with only mortgage loans.<sup>3</sup> When the expected consumer credit growth for the current year is incorporated in the Bank of Italy's model, the share of vulnerable households at the end of 2019 is 0.5 percentage points higher compared with the previous model (see panel (b) of the figure).

### Vulnerability of households with consumer credit and mortgage renegotiations (per cent)

(a) Distribution of consumer credit among vulnerable households (1)



(b) Share of vulnerable households (2)



Source: Based on data from the Survey on Household Income and Wealth (SHIW).  
(1) Average for the period 2010-16. – (2) The latest SHIW data available refer to 2016.

<sup>1</sup> By Francesco Franceschi and Valentina Michelangeli.

<sup>2</sup> C. A. Attinà, F. Franceschi and V. Michelangeli, 'Modelling households' financial vulnerability with consumer credit and mortgage refinancing', Banca d'Italia, *Questioni di Economia e Finanza* (Occasional Papers), forthcoming, and V. Michelangeli and M. Pietrunti, 'A microsimulation model to evaluate Italian households' financial vulnerability', *International Journal of Microsimulation*, 7, (3), 2014, 53-79, also published by Banca d'Italia, *Questioni di Economia e Finanza* (Occasional Papers), 225, 2014.

<sup>3</sup> Among households with mortgages only, the share in arrears corresponds to 11 per cent. This share rises to 15 per cent for households which, in addition to a mortgage, have taken out a consumer credit loan, while the share is 25 per cent for households with consumer credit only. Households with consumer credit loans only, however, tend to owe much smaller amounts than the other two categories (around €5,000 and more than €60,000 respectively).

<sup>6</sup> Compared with the baseline scenario, this assumes a rise in interest rates of 100 basis points and a decline of 2 percentage points in the growth rate of nominal income (around one standard deviation of the respective yearly variations recorded in the period 2003-18).

Mortgage renegotiations reduce households' vulnerability by lowering the cost of the debt. Around one in three of the vulnerable households that renegotiated the terms of their mortgages in the four years 2013-16 are no longer classified as financially fragile. Also taking into account in the microsimulation model that households can renegotiate mortgages, the share of vulnerable households forecast for the end of 2019 is nonetheless still about 0.4 percentage points higher than that of the previous model.

## Firms

The cyclical slowdown is affecting firms' financial conditions. Its effects on debt repayment capacity are being mitigated by low interest rates and stronger balance sheet structures than in the past. The share of debt at risk of default would increase considerably only in the event of a large drop in profitability associated with a sharp rise in the cost of funding.

Firms' profitability has slowed: the rate of growth in gross operating income has declined to 0.3 per cent from 1.6 per cent in 2017. Analysts' expectations for listed companies' profits have deteriorated in all industries (Figure 1.10).

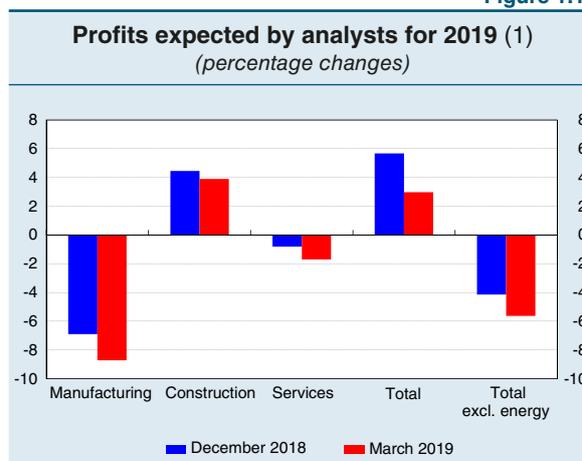
With the economic slowdown, firms' debts to banks began to decline again in the early months of the year; according to our projections based on the latest macroeconomic scenario, this reduction will continue over the next two years. Credit access conditions are worsening, especially for smaller firms. For several years now, given banks' increased selectivity, the expansion in bank debt has been limited to the soundest firms and to the largest ones (Figure 1.11.a).

The transmission of higher yields on Italian government securities to the cost of funding for firms has been limited to date, in part owing to strong competition among credit institutions: the margins applied to the benchmark rates (the three-month Euribor for variable-rate loans and five-year interest rate swaps for fixed-rate loans), which rose last summer, have held relatively stable in recent months.

After deteriorating rapidly in the second half of 2018, funding conditions on the bond market have gradually improved. Between January and March gross bond issuance rose to €10 billion, around €2 billion more than the quarterly average recorded last year, and the yields at issue of fixed-rate securities declined compared with the end of last year. The volume and cost of placements nonetheless primarily reflect issues by large industrial groups from which investors demand lower risk premiums.

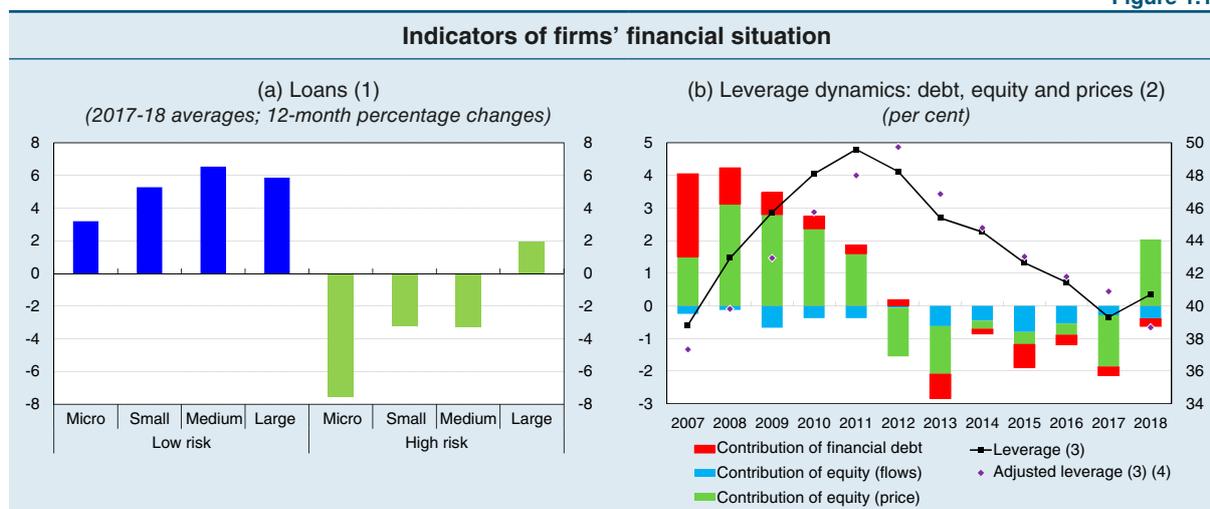
Sounder balance sheets than in the past are helping firms to tackle the cyclical slowdown. Since it peaked during the sovereign debt crisis, financial leverage has fallen by around 9 percentage points. The reduction in debt and increase in equity contributed to the fall (2 and 3 percentage points respectively); the remaining 4 percentage points are ascribable to the increase in the market value of equity (Figure 1.11.b). The moderate growth in leverage recorded in 2018 was entirely

Figure 1.10



Source: Bloomberg.  
(1) Changes compared with March 2018. Based on a closed sample of 103 listed companies as at December 2017, representing 94 per cent of the market capitalization of non-financial corporations.

Figure 1.11



Sources: Bank of Italy and Cerved.

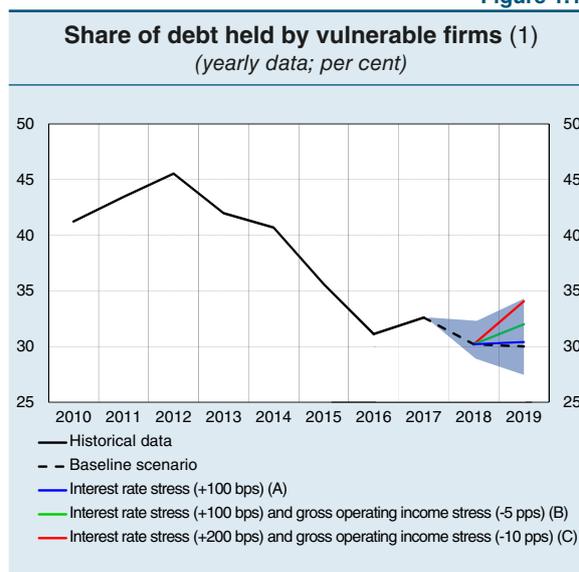
(1) The data refer to a sample of about 450,000 limited companies. Loans include those granted by financial companies and are adjusted for securitizations. Allocation into the risk groups is based on Cerved's CeBi-Score4 indicator. Low (high) risk firms have a score ranging from 1 to 4 (5 to 10). – (2) Leverage is calculated as the ratio of financial debt to the sum of financial debt and net equity at market prices. The histograms break down the annual change in the contribution of leverage to three factors: financial debt, net flows of shares and participating interests, and developments in the market value of equity. Data for 2018 are preliminary. – (3) Right-hand scale. – (4) Adjusted leverage is calculated by removing, for every year, the effects of changes in the market value of net equity. Values above (below) the solid line indicate an increase (decrease) in the market value of equity.

determined by the negative dynamics of share prices. Firms' resilience is being boosted by the large stock of liquid assets, which have now reached 21 per cent of GDP and 30 per cent of the sector's financial debts (14 and 17 per cent in 2011 respectively).

Firms' debt repayment capacity is still stronger than in the past. The ratio of net interest expense to gross operating income has declined by more than 14 percentage points since 2008, to 8 per cent. The non-performing loan rate on loans granted by banks and financial companies declined to 2.2 per cent, a level below that preceding the financial crisis. However, some signs of tension have surfaced in commercial dealings between firms: for the first time since 2012, agreed days to payment and delays in the settlement of invoices have increased, albeit only slightly.<sup>7</sup>

The projections of the Bank of Italy's microsimulation model indicated that, in a scenario consistent with the latest macroeconomic forecasts, the share of debt held by vulnerable firms (30 per cent) would not increase in 2019

Figure 1.12



Source: Based on Cerved data.

(1) Vulnerable firms are those whose gross operating income is negative or whose ratio of net interest expense to gross operating income exceeds 50 per cent. Excludes firms with bad loans. The latest available annual financial statements for the whole sample of firms refer to 2017. The shaded area indicates a confidence interval of 95 per cent around the baseline scenario. Compared with the baseline scenario, in 2019: (A) the interest rate is 100 basis points higher; (B) at the same time the growth rate of nominal gross operating income is 5 percentage points lower; and (C) the interest rate is 200 basis points higher and the growth rate of nominal gross operating income is 10 percentage points lower.

<sup>7</sup> Cerved, *Protesti e pagamenti delle imprese*, 33, 2019.

(Figure 1.12).<sup>8</sup> If trends in profitability and interest rates were to prove more unfavourable, the share of debt at risk would rise to 32 per cent of the total.<sup>9</sup> In a particularly adverse scenario, characterized by variations in the cost of debt and of profitability that are both very negative and greater than those recorded historically, this share would reach 34 per cent, a level that is nevertheless below the maximum for 2012.

<sup>8</sup> The baseline scenario for 2019 assumes stable real GDP, in line with the latest forecasts by Consensus Economics, a moderate increase in gross operating income, a small reduction in financial debts and a moderate increase in the cost of debt. For further 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.

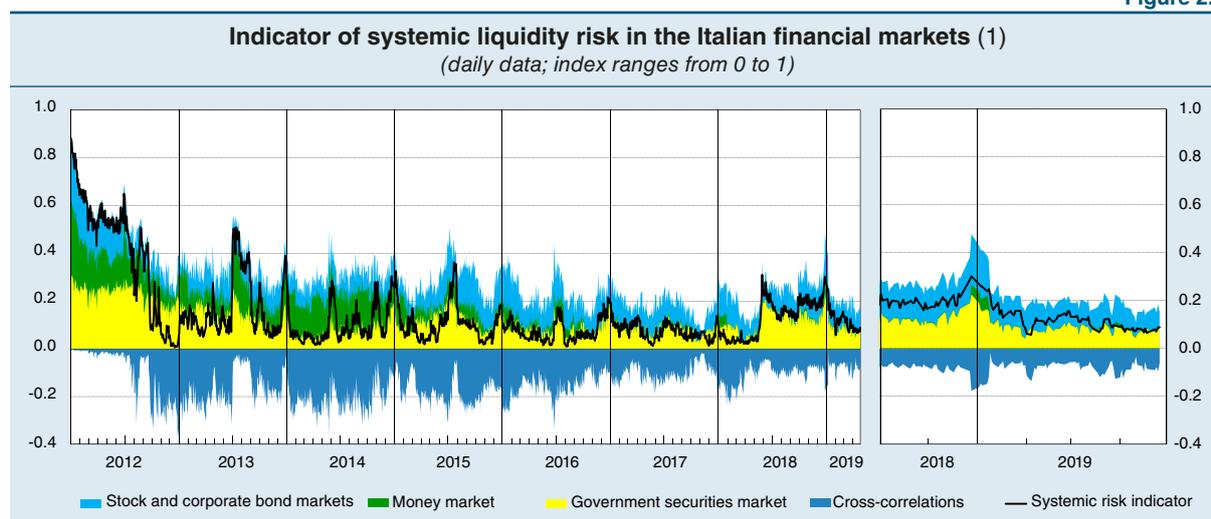
<sup>9</sup> The adverse scenario assumes a rise in interest rates of 100 basis points (above the increases that occurred in 2007 and 2011) and a decline of 5 percentage points in the growth rate of gross nominal income, equal to around one standard deviation of the respective annual variations recorded in the period 2003-18.

## 2 FINANCIAL SYSTEM RISKS

### 2.1 THE MONEY AND FINANCIAL MARKETS

The favourable international financial situation has helped to ease tensions affecting stocks, corporate bonds and Italian government securities since the start of the year. The end of the Eurosystem's net purchases of securities under the expanded asset purchase programme (APP) had no negative repercussions on the markets. Liquidity conditions in the Italian financial markets are, however, still fragile; the indicator of systemic risk, while lower than in previous months, is still at above average levels for the last few years (Figure 2.1).

Figure 2.1



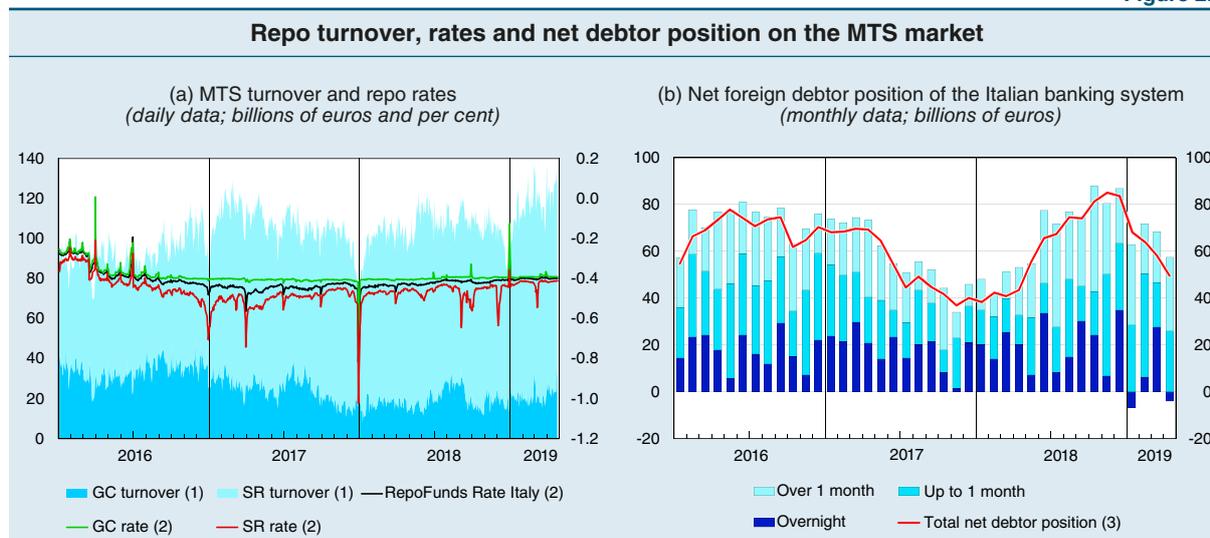
Sources: Based on data from Thomson Reuters Datastream, Bloomberg, Moody's KMV, MTS SpA, e-MID SIM SpA, and the Bank of Italy.

(1) The indicator measures the combined risk in the money market, the secondary market for government securities, and the stock and corporate bond markets. The index ranges 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 cross-correlations. For the methodology used in constructing the indicator, see *Financial Stability Report*, 1, 2014.

In the money market, turnover in the repo market has risen sharply (Figure 2.2.a). In the early months of this year, Italian banks reduced their foreign net debtor position on the MTS repo market (Figure 2.2.b). The decrease is due mainly to some intermediaries using their excess liquidity in the general collateral segment of the market, prompted by the opening of a small positive spread between the yield on repo contracts in Italian government securities and the alternative yield offered by the Eurosystem's deposit facility. With the easing of tensions in the government securities market, demand for Italian securities lending by non-resident intermediaries has also weakened; the drop in demand was reflected in a gradual decline in the average cost of lending transactions (specialness) and is partly attributable to the reduction in the short positions held by foreign investors.

The development of new money market reference rates continues in the euro area (see the box 'New money market reference rates').

Figure 2.2



Sources: Based on data from MTS SpA and RepoFunds Rate. (1) Daily turnover in general collateral (GC) and special repos (SR) on the MTS market by contract settlement date. – (2) Calculated in reference to daily contracts for Italian government securities made on electronic trading platforms (MTS for GC and SR rates; MTS and BrokerTec for the RepoFunds Rate). Right-hand scale. – (3) Calculated on the basis of the cash value of the outstanding contracts on the MTS repo market. For the total net position, monthly average of daily data; for the breakdown by maturity, end-of-period data.

## NEW MONEY MARKET REFERENCE RATES<sup>1</sup>

On 2 October the European Central Bank will begin publishing the new euro short-term rate (€STR), an unsecured daily rate calculated based on European money market transactions that will replace the Eonia for indexing financial instruments and contracts.<sup>2</sup> In the coming months the European Money Markets Institute (EMMI) will also manage the transition to a new methodology for calculating the Euribor rate,<sup>3</sup> which will use data on transactions by a panel of banks and, when these are unavailable, estimates of the funding costs of these banks. The changes are designed to strengthen the money market reference rates, whose integrity and representativeness have come under threat in recent years due to episodes of manipulation and the significant drop in interbank trading.

In Italy the reference rates are used for a wide range of financial instruments (e.g. CCTs) and to index mortgage and bank loans to households and firms. The transition may involve risks for banks and investors associated with: the absence of contractual clauses addressing the possible unavailability of the existing indices (fallback provisions); the lack of standardization for financial instruments linked to the new benchmarks; and the need to adjust cross-border contracts to take account of differences between jurisdictions. The Bank of Italy is contributing to the work being done at European level by participating in the supervisory college for Euribor and Eonia, together with Consob, the Italian securities market regulator, and by being directly involved in Eurosystem programmes to develop the €STR. To ensure a smooth transition to the new reference rates, operators must adapt contracts indexed to current benchmarks, inserting fallback provisions where necessary; prepare in advance new contracts for deals that will be entered into after the new benchmarks are introduced; and ensure clear communication with customers.

<sup>1</sup> By Salvatore Nasti.

<sup>2</sup> For more information see the ECB's website: 'Euro short-term rate (€STR)'.

<sup>3</sup> EMMI, *Blueprint for the Hybrid Methodology for the Determination of EURIBOR*, February 2019.

On the primary market for Italian government bonds, variability in the bid prices at auction – a measure of dealers’ uncertainty – has declined since November; the yields at issue have fallen compared with the peak reached in October, although they are still above the levels reported in the early months of 2018. The average cost of government securities outstanding is stable at around 2.7 per cent (Figure 2.3).

Placements of new 15-year and 30-year BTPs in the first two months of 2019 helped to lengthen the average residual life of securities outstanding from 6.7 to 6.8 years between October and March.<sup>1</sup> The long maturity of securities dampens the transmission of changes in the yields in the primary market to the average cost of the debt. Assuming there are no changes in the composition of the stock of securities, a permanent increase of 1 percentage point in yields at issue would translate into an increase in the average cost of about 0.1, 0.2 and 0.4 percentage points after one, two and three years, respectively.

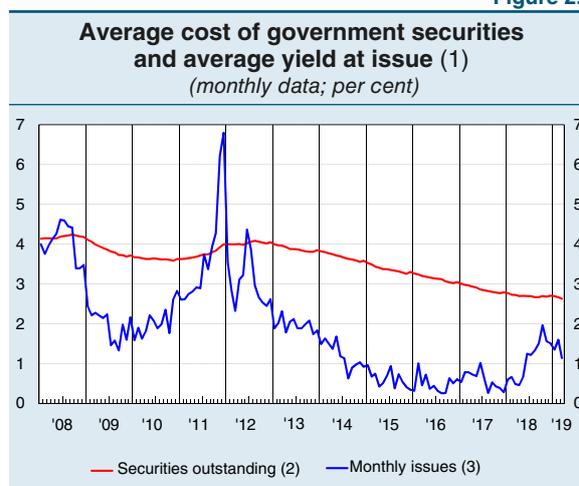
The gross issuances planned for the coming quarters will be for sizeable amounts. Medium- and long-term securities reaching maturity between May and December amount to €141 billion, more than in the same period of 2018 (€129 billion); a further €205 billion will reach maturity in 2020.

In the second half of 2018, the share of Italian government securities held by banks and insurance companies remained practically unchanged; that held by foreign investors fell further, to 22 per cent, while that held by the Bank of Italy increased as a result of the final stage of the APP (Figure 2.4). Some signs of recovery in foreign demand emerged in the first few months of 2019 (see *Economic Bulletin*, 2, 2019).

Liquidity conditions on the secondary market for Italian government securities have gradually improved since the start of the year; volumes traded rose slightly on both the regulated markets (Figure 2.5.a) and the over-the-counter markets (OTC). The increase in the quantities quoted by market makers and the slight narrowing

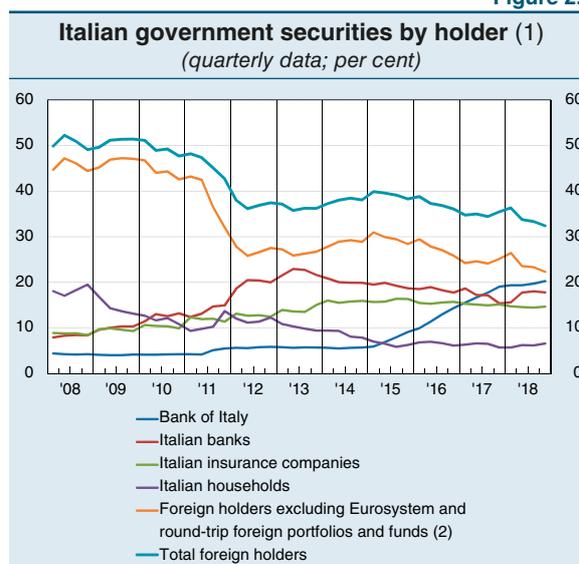
<sup>1</sup> The calculations do not include issues on international markets.

Figure 2.3



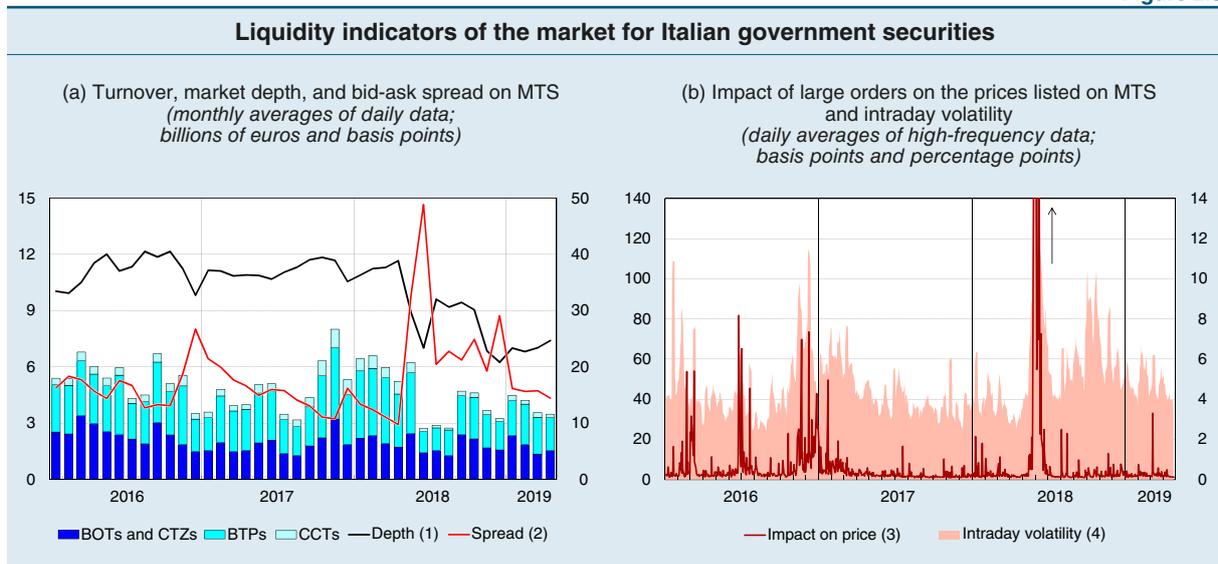
Sources: Based on Ministry of Economy and Finance and Bank of Italy data. Data at 31 March 2019.  
 (1) Domestic placements of non-indexed government securities. – (2) Weighted average of the yields of government securities outstanding at month-end. – (3) Weighted average of the yields of government securities placed during the month, by settlement date.

Figure 2.4



Sources: Bank of Italy, Financial Accounts; and estimates based on Assogestioni and ECB data.  
 (1) Shares calculated on data at market prices and net of securities held by Italian general government. Data refer to a subset of holders. – (2) Securities held by foreign investors net of those held by the Eurosystem (excluding the Bank of Italy) and by foreign managed portfolios and investment funds attributable to Italian investors.

Figure 2.5



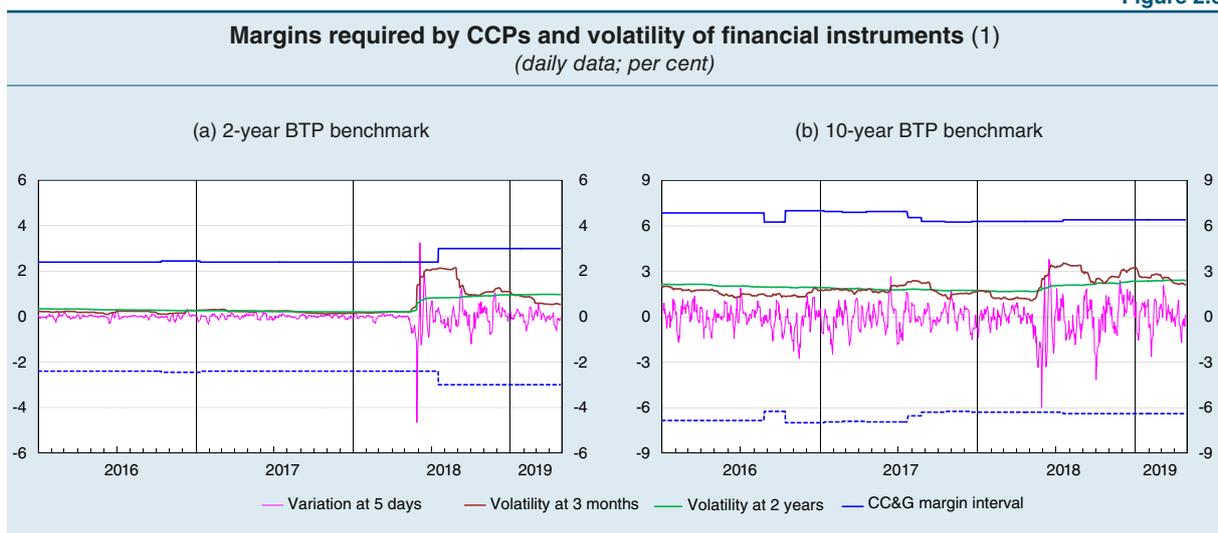
Source: Based on MTS SpA data.

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

of the bid-ask spread help preserve the market’s ability to absorb large orders, i.e. its resilience (Figure 2.5.b).

The volatility of Italian government securities prices diminished in the early months of the year, but continues to be greater than at the start of 2018. The margins required by central counterparties (CCPs) remained at levels set after the increase last summer (Figure 2.6). Current margin and

Figure 2.6



Sources: Based on Bloomberg and Cassa di Compensazione e Garanzia SpA (CC&G) data.

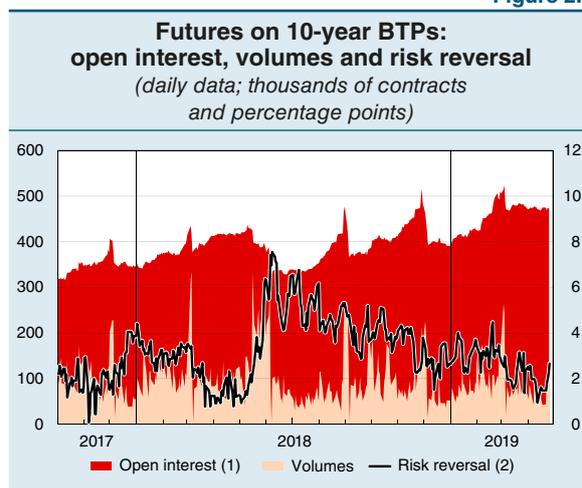
(1) Variations in the price of the 2-year and 10-year BTP benchmarks over a 5-day horizon and volatility indicators based on VaR methodology and calculated with reference to a period of 3 months and of 2 years with a confidence interval of 99 per cent. The margins for BTPs are those for the corresponding duration class. The dashed line is the mirror image of the margins, highlighting the adequacy of the margin requirements to cope with the negative price fluctuations actually registered in the market.

default fund levels helped to safeguard the inflow of liquidity from abroad, even in times of greatest tension.

In the Financial Sector Assessment Program (FSAP) published in July 2018 the International Monetary Fund recommended that the Eurosystem further harmonize all CCPs' access to central bank accounts and liquidity provision, without distinction between those with and those without a banking license. According to this approach, harmonization would ensure a level playing field and would have a positive impact on financial stability, reducing the CCPs' dependence on commercial banks and the repo market for liquidity in times of market strain.

Trading on the BTP futures market has continued to increase and there has been a decrease in the premiums to insure against potential falls in the prices of the underlying securities: the risk reversal index, which measures the relative price of options that protect against a fall in futures prices compared with those that profit from an increase, decreased significantly, returning close to where it stood in April 2018 (Figure 2.7).

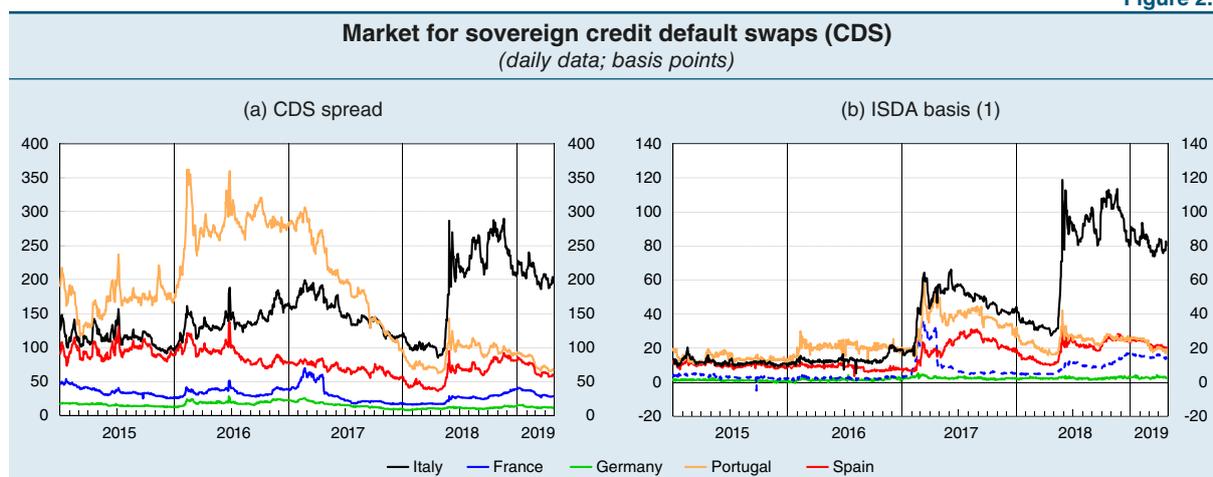
Figure 2.7



Source: Based on Bloomberg data.  
 (1) Refers to the first two maturity dates of future contracts. – (2) Difference between the implied volatility of put and call option prices on active 10-year BTP futures with the same relative change in the strike price in relation to the underlying price (moneyness) with the same residual maturity (1 month). Right-hand scale.

The premium for insolvency risk on Italian government securities, measured by credit default swaps (CDS), has also declined over the last few months, although it remains higher than at the start of 2018 (Figure 2.8.a). Almost half of the premium is linked to the risk of a redenomination of debt in a new national currency: the gap between the premium on CDS contracts offering protection against redenomination risk and that on contracts with no such provision (ISDA basis), while narrowing, is still wider than in other euro-area countries (Figure 2.8.b).

Figure 2.8

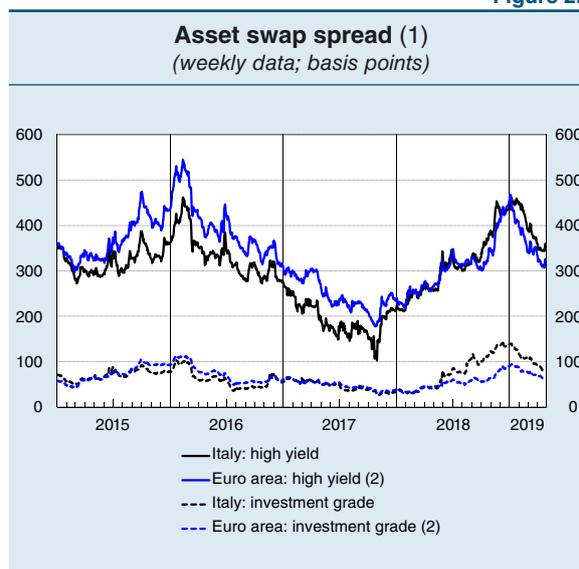


Source: Based on Bloomberg data.  
 (1) The International Swaps and Derivatives Association (ISDA) is an organization of participants in the market for OTC derivatives. The ISDA basis measures the difference between CDS spreads on 5-year US dollar contracts under the 2014 and the 2003 ISDA Definitions.

Market conditions for Italian issuers are improving, but remain less favourable than in the first quarter of last year. Turnover of corporate bonds listed on the MOT (*Mercato Telematico delle Obbligazioni*) is gradually increasing; in the first three months of this year, however, their value was about 15 per cent lower compared with the year-earlier period. Since January there has been a decrease in the risk premiums on bonds issued by Italian corporations with investment-grade and high-yield ratings (Figure 2.9). However, the premiums continue to be higher than those for issuers with similar credit ratings from other euro-area countries, with a spread of about 15 and 30 basis points for the two rating categories.

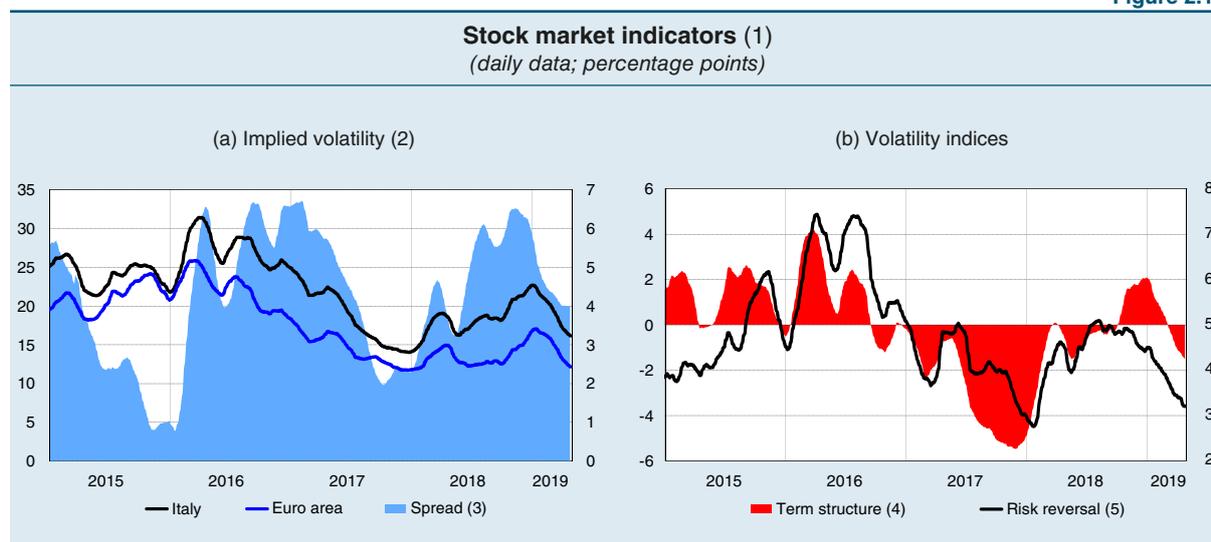
The recovery in share prices since the start of the year has gone hand-in-hand with a reduction in the premiums that investors are prepared to pay to protect themselves against price risk: the gap between the implied volatility of the Italian stock market and that of the euro area has narrowed (Figure 2.10.a); the cost of protecting against sharp drops in share prices (i.e. risk reversal) has registered a significant decrease and the prices of options with the shortest maturities have fallen to levels that are similar to those reported in April 2018 (Figure 2.10.b).

Figure 2.9



Source: Based on ICE Bank of America Merrill Lynch data. (1) Asset swap spreads weighted for the market capitalization of individual securities issued by non-financial corporations. – (2) The ICE Bank of America Merrill Lynch indices for the euro area have been recalculated to exclude Italy.

Figure 2.10



Source: Based on Bloomberg data. (1) Sixty-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) Spread between the volatility implied by the prices of 2-month options on the Italian and euro-area stock market indices. Right-hand scale. – (4) Spread 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 options that protect from a fall in the stock index compared with those that profit from a rise. Right-hand scale.

## 2.2 BANKS

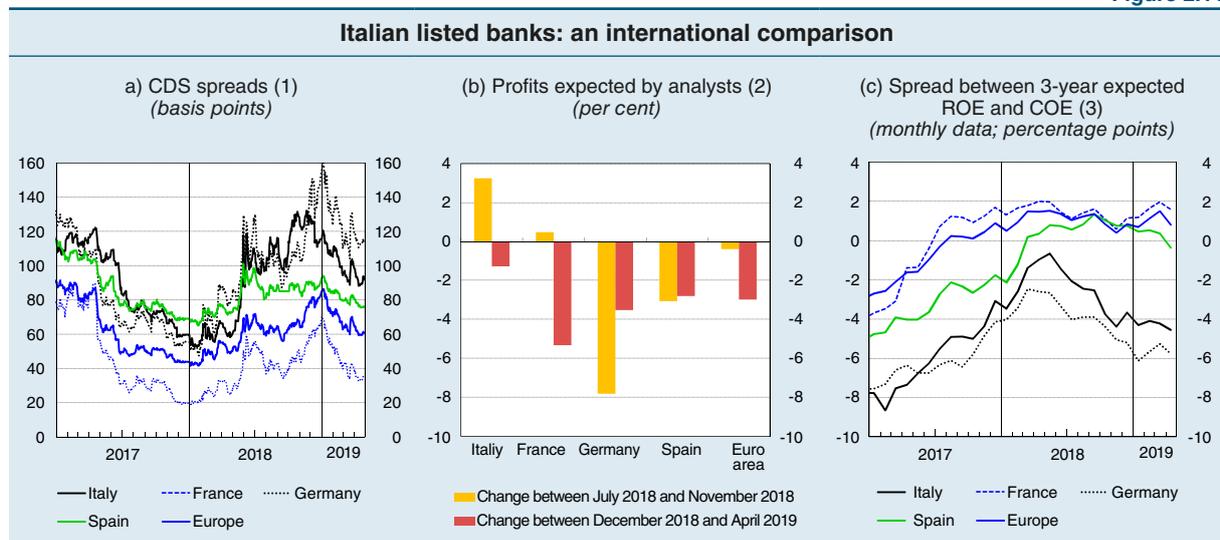
The Italian banking system continues to strengthen. In the second half of 2018, capital ratios returned to growth. NPLs continue to decline and bond issues on the wholesale market have resumed, although at costs that are higher than those of the first half of 2018. Operating costs have fallen following changes to the production process and the distribution network. The main risks stem from the deteriorating economic outlook: weaker growth and greater uncertainty are adversely affecting earnings expectations and are making it more difficult to access the capital market. In addition, banks remain vulnerable to negative developments on the Italian government bond market. A limited number of intermediaries, who are burdened by the effects of the economic crisis and low efficiency, due in part to their small size, are struggling to reach an adequate level of profitability.

### Market indicators

The risk indicators of Italian banks as implied by the prices of financial assets remain high, albeit at levels that are below those of the second half of 2018. CDS spreads are still 30 basis points higher, on average, than those of the other European banks (Figure 2.11.a). The spread between the average yield on senior unsecured five-year bank bonds and the yield on similar securities issued by the other main EU banks is equal to 0.7 percentage points.

The weaker economic growth is reflected in a decline in analysts' earnings expectations, which diminished less than for other European banks (Figure 2.11.b). Market expectations regarding the return on equity

Figure 2.11



Sources: Based on data from Bloomberg and Thomson Reuters Datastream.

(1) Simple average of 5-year CDS spreads. The data relate 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; for Europe, in addition to the preceding, Barclays, The Royal Bank of Scotland Group, HSBC Holdings and Lloyds Banking Group. – (2) Net profit estimates for the next 12 months, in euros. The data relate to the banks listed on the FTSE Italy Banks, FTSE France Banks, FTSE Germany Banks, FTSE Spain Banks and Euro Stoxx Banks. – (3) Return on equity (ROE) and cost of equity (COE). The data refer to the 34 listed European banks that took part in the European Banking Authority's stress test conducted in 2016: for Italy, UniCredit, Intesa Sanpaolo, UBI Banca and Banco BPM; for Austria, Erste Group Bank and Raiffeisen Bank International; for Belgium, KBC Group; for Denmark, Danske Bank and Jyske Bank; for Finland, Nordea Bank; for France, BNP Paribas, Société Générale and Crédit Agricole; for Germany, Deutsche Bank and Commerzbank; for Ireland, Allied Irish Banks and Bank of Ireland; for Norway, DNB; for the Netherlands, ABN AMRO Groep and ING Groep; for Poland, Bank Pekao and Powszechna Kasa Oszcz dno ci Bank Polski; for the United Kingdom, Lloyds Banking Group, HSBC Holdings, The Royal Bank of Scotland Group and Barclays; for Spain, Banco Santander, Banco Bilbao Vizcaya Argentaria, Banco de Sabadell and Caixabank; for Sweden, Swedbank, Skandinaviska Enskilda Banken and Svenska Handelsbanken; and for Hungary, OTP Bank. The COE level was obtained using the CAPM analytical model (see the box 'The cost of equity for Europe's banks', *Financial Stability Report*, 2, 2017). The data refer to April 2019; averages weighted by market capitalization.

remain lower than the average return for European banks (7.8 and 9.6 per cent respectively). The risk premium for holding capital in Italian banks has remained stable. The spread between expected profitability and cost of capital worsened by 80 basis points to stand at -4.5 percentage points; on average, the spread for the main EU banks is positive at 0.8 percentage points (Figure 2.11.c).

### Asset risks

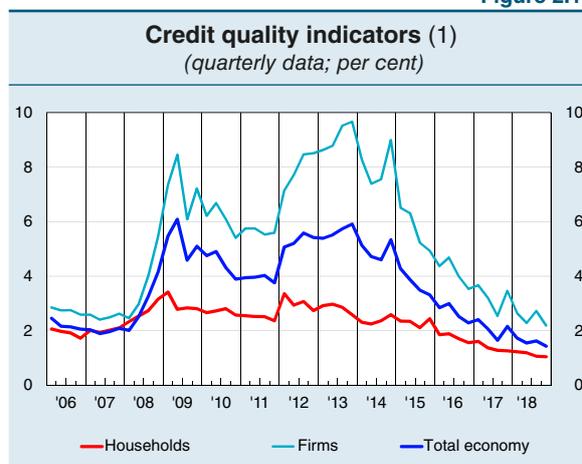
The asset risks of Italian banks are closely linked to developments in the real economy and to conditions on the Italian government bond market. The slowdown in production halts the growth in high-quality loans and, if protracted, the reduction of non-performing loans. The volatility of government bond prices remains higher than the level observed in the first few months of 2018 and exposes banks to the risk of losses.

In the fourth quarter of 2018, the flow of new non-performing loans in proportion to total performing loans fell by 0.2 percentage points to 1.4 per cent (Figure 2.12). The decline was mostly on account of loans to firms, which fell from 2.7 to 2.2 per cent, while the indicator for households remained stable at around 1 per cent. In the past, new non-performing business loans reacted markedly to cyclical changes. However, since 2015 the growth in lending has been concentrated in firms that are less risky (see Section 1.2).<sup>2</sup> As a result, the cyclical slowdown may have a more muted effect on credit quality.

Non-performing loans continued to be disposed of at a swift pace: €35 billion in the second half of 2018. The disposals carried out in 2018 as a whole totalled €55 billion, some €15 billion more than the amount that banks had set out to sell at the start of that year; loans classified as unlikely-to-pay accounted for €5 billion of such disposals (€2 billion in 2017). Selling prices for bad loans, calculated in proportion to the gross amount of bad loans sold, were in line with 2017 prices for positions backed by collateral (33 per cent), and they increased by 2 percentage points to 11 per cent for the other positions.<sup>3</sup>

At the end of 2018, the stock of NPLs net of provisions stood at €90 billion (€189 billion gross of provisions; Table 2.1 and Figure 2.13.a), 30 per cent less than at the end of 2017 (27 per cent gross of provisions).

Figure 2.12



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

<sup>2</sup> E. Bonaccorsi di Patti and P. Finaldi Russo, 'Firms' financial fragility and credit allocation', Banca d'Italia, Questioni di Economia e Finanza (Occasional Papers), 371, 2017 (only in Italian).

<sup>3</sup> The recovery rates for bad loans sold on the market are typically much lower than those recorded for positions that are closed using standard recovery procedures (25 per cent and 44 per cent respectively on average in the three years 2015-17). See A.L. Fischetto, I. Guida, A. Rendina, G. Santini and M. Scotti di Carlo, 'Bad loan recovery rates in 2017', *Notes on Financial Stability and Supervision*, 13, 2018.

Table 2.1

**Credit quality: amounts and shares of non-performing loans and coverage ratios (1)**  
(billions of euros and per cent)

	Significant banks (2)					Less significant banks (2)					Total (2)				
	Gross exposures	Net exposures	Gross percentage share	Net percentage share	Coverage ratio	Gross exposures	Net exposures	Gross percentage share	Net percentage share	Coverage ratio	Gross exposures	Net exposures	Gross percentage share	Net percentage share	Coverage ratio
	December 2018														
<b>Loans (3)</b>	<b>1,630</b>	<b>1,550</b>	<b>100.0</b>	<b>100.0</b>	<b>4.9</b>	<b>338</b>	<b>316</b>	<b>100.0</b>	<b>100.0</b>	<b>6.4</b>	<b>2,185</b>	<b>2,074</b>	<b>100.0</b>	<b>100.0</b>	<b>5.1</b>
Performing	1,495	1,487	91.7	96	0.5	299	296	88.4	93.6	0.8	1,995	1,984	91.3	95.7	0.6
Non-performing	135	63	8.3	4.1	53.4	39	20	11.6	6.4	48.7	189	90	8.7	4.3	52.7
Bad loans (4)	71	24	4.4	1.6	66.1	20	8	6.1	2.5	61.8	102	35	4.7	1.7	65.4
Unlikely to pay (4)	61	37	3.7	2.4	39.5	17	11	5.0	3.4	36.7	83	51	3.8	2.4	38.9
Past-due (4)	3	2	0.2	0.1	28.1	2	2	0.6	0.5	12.8	5	4	0.2	0.2	23.2
	June 2018														
<b>Loans (3)</b>	<b>1,634</b>	<b>1,540</b>	<b>100.0</b>	<b>100.0</b>	<b>5.8</b>	<b>344</b>	<b>317</b>	<b>100.0</b>	<b>100.0</b>	<b>7.9</b>	<b>2,197</b>	<b>2,063</b>	<b>100.0</b>	<b>100.0</b>	<b>6.1</b>
Performing	1,475	1,467	90.3	95.3	0.5	296	294	86.1	92.7	0.8	1,973	1,961	89.8	95.0	0.6
Non-performing	159	72	9.7	4.7	54.4	48	23	13.9	7.3	51.7	225	103	10.2	5.0	54.4
Bad loans (4)	88	28	5.4	1.8	67.7	28	10	8.2	3.0	65.8	128	42	5.8	2.0	67.6
Unlikely to pay (4)	68	42	4.2	2.7	38.6	17	11	5.0	3.6	34.3	90	56	4.1	2.7	37.8
Past-due (4)	3	2	0.2	0.2	28.2	2	2	0.7	0.7	11.9	6	5	0.3	0.2	22.3

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

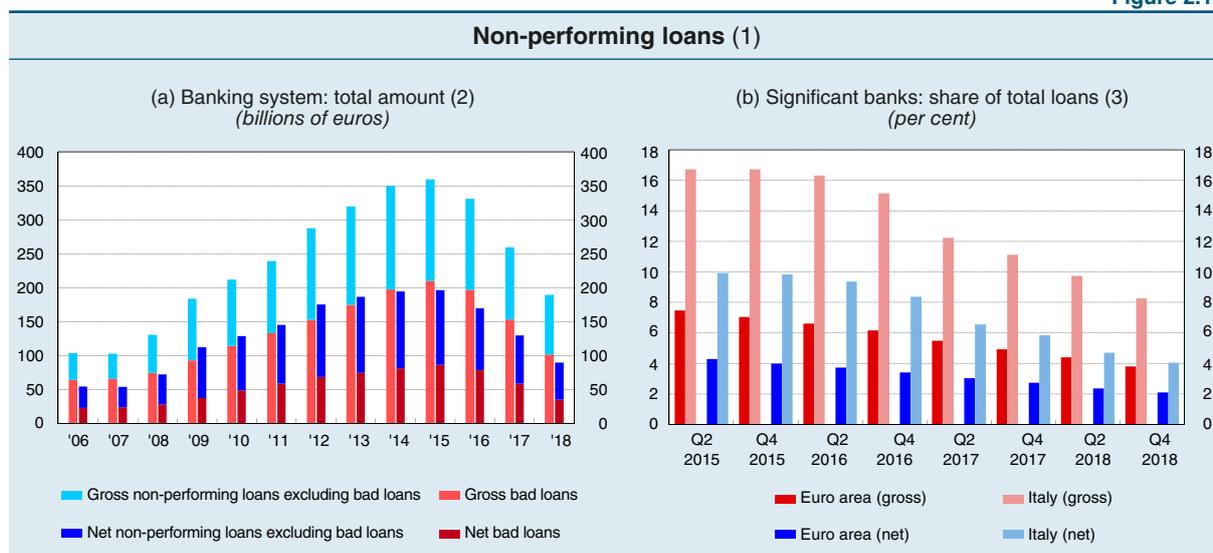
(1) The coverage ratio is the amount of loan loss provisions in relation to the corresponding gross exposure. Provisional data subject to rounding. – (2) Significant banks are those supervised directly by the ECB; less significant banks are those supervised by the Bank of Italy in close cooperation with 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. – (3) 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'). – (4) 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.

The coverage ratio for non-performing loans fell to 52.7 per cent in the second half of 2018 (Table 2.1), reflecting large disposals of bad loans with very high coverage ratios; for significant banks, it remained about 7 percentage points higher than the average for the main euro-area banks. The coverage ratio for unlikely-to-pay exposures increased to 38.9 per cent.

At the end of the year, the ratio of NPLs to total loans (including interbank and central bank exposures) fell to 4.3 per cent net of provisions. For significant banks, the gap with respect to the euro-area average fell to 2 percentage points (Figure 2.13.b).

Our estimates, based on the data sent by banks regarding their NPL reduction plans, suggest that the ratio of NPLs to total loans, net of provisions, will fall to 3.9 per cent by the end of 2019 and to 3.1 per cent in 2021. By 2021, the ratio is expected to fall below 5 per cent for less significant banks with a high share of NPLs (see the box 'The NPL reduction plans of less significant banks'). The ability to reach these goals may be hindered if the deterioration in the economic outlook were to translate into flows of new NPLs that exceed the level expected by banks when they laid out their plans.

Figure 2.13



### THE NPL REDUCTION PLANS OF LESS SIGNIFICANT BANKS<sup>1</sup>

Between the end of 2015 and December 2018, the non-performing loans (NPLs) of less significant institutions (LSIs) declined by more than a third and the coverage ratio increased by about 6 percentage points. In 2018, the LSIs with high shares of NPLs submitted their NPL reduction plans<sup>2</sup> as provided for in the guidelines published by the Bank of Italy in January 2018.<sup>3</sup> The reduction that was planned for the second half of 2018 was achieved in full, largely by means of sales. For the period 2019 to 2021, the plans provide for a further reduction of €4.4 billion in gross NPLs (a quarter of the amount outstanding at the end of 2018 for the reference sample) and a decline in the ratio of NPLs to total loans, gross of loan loss provisions, from 13.9 per cent to 9.8 per cent (see panel (a) of the figure). NPL sales are expected to provide a significant contribution to the reduction; both loan recoveries and reclassifications to performing status are expected to largely offset the flow of new NPLs (see panel (b) of the figure).

Overall, the plan for the coming years is consistent with the need to steadily reduce the share of NPLs. However, banks' strategies have varied greatly, both in relation to the amounts of the planned recoveries and sales, and in respect of how prudent the plans' assumptions are. Not all the LSIs with an above-average NPL ratio have provided a reduction plan that is consistent with the need to narrow the gap in a timely manner. Some banks have not taken sufficient account of the recent decline in economic growth prospects, which could result in an increase

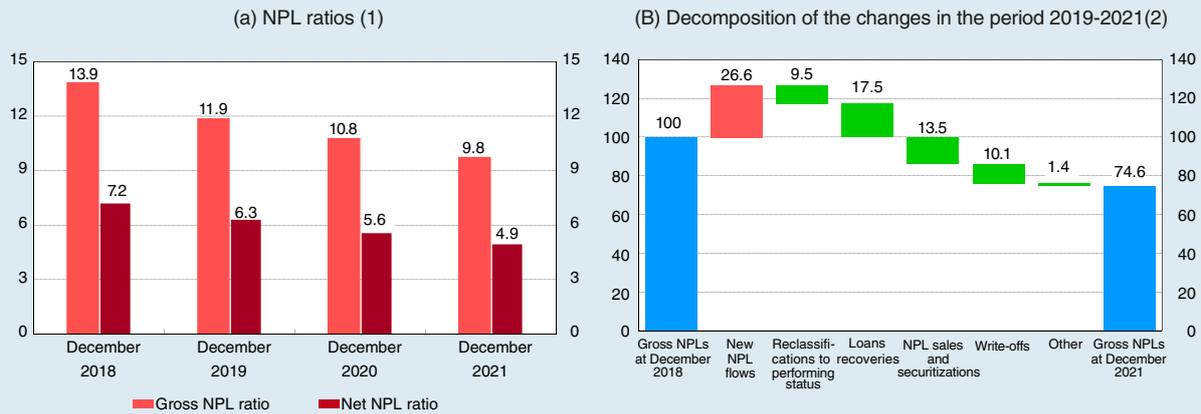
<sup>1</sup> By Paolo Palumbo and Anna Rendina.

<sup>2</sup> The plans submitted by the LSIs cover the period beginning in June 2018 and ending in December 2021. The data reported only refer to the period following the end of 2018 and do not include information on the plans submitted by the cooperative credit banks (BCCs) merged into ICCREA and Cassa Centrale Banca, now classified as significant banking groups. The sample considered covers about 50 LSIs representing 90 per cent of the non-performing loans of the LSIs that are not BCCs.

<sup>3</sup> Banca d'Italia, 'Guidance on the management of non-performing loans for Italy's less significant institutions', January 2018.

in the flow of new NPLs, a decline in reclassifications to performing status, and a slowdown in new loans with respect to their plans. When the Bank of Italy reviews the plans, it requests that they be revised if they are deemed inadequate.

### Expected trends in non-performing loans (NPLs) (per cent)



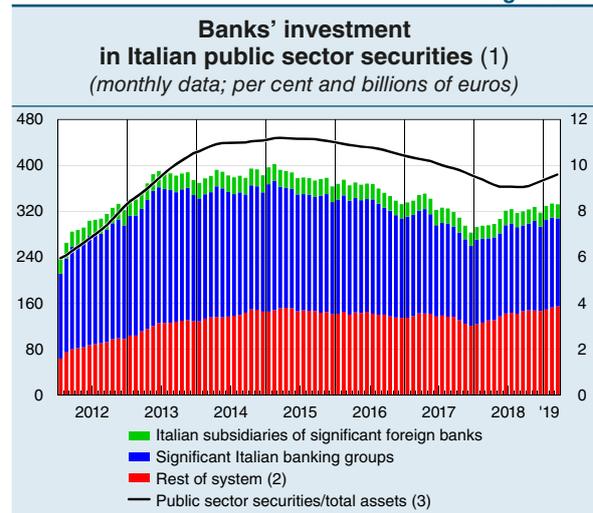
(1) Calculated in relation to total loans, including interbank and central bank exposures. – (2) Share of the initial stock of NPLs (December 2018).

As a result of the recovery in government bond prices, banks reduced the level of Italian government securities in their portfolios: from the start of December 2018 to the end of March 2019, banks made net sales amounting to about €3 billion, compared with net purchases of €14 billion in the preceding four months, on a seasonally adjusted basis. The share of securities in the asset portfolio that are valued at amortized cost increased significantly. These investments are medium- and long-term fixed assets and their changes in value do not affect regulatory capital; however, they do constrain part of the bank's assets for the residual maturity of the purchased securities.

At the end of March, Italian government securities held by Italian banks amounted to €332 billion, or 9.9 per cent of total assets (Figure 2.14); the investments classified at amortized cost, which equalled 54 per cent of the total, had an average residual maturity of about six years.

In December 2018, Italian banks' exposure to emerging economies was €155 billion (about 5 per cent of assets), a decline of 6 per cent compared with the end of June (see Table A3 in the *Selected Statistics* section). More than half of the decline was attributable to exposures to Turkey and Russia. Italian banks' exposures to

Figure 2.14



Source: Individual supervisory reports.  
(1) All public sector securities, including those issued by local authorities. Excludes Cassa Depositi e Prestiti SpA. – (2) Includes the cooperative credit banks merged into cooperative 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.

these two countries, which are still the highest exposures among those to emerging economies, are limited to a small number of intermediaries.

### Refinancing risk and liquidity risk

The funding of Italian banks remained stable, even during the period of heightened tensions on the financial markets in the second half of 2018; it has started to increase again in recent months. The reduction in retail bonds continues, compensated by the increase in deposits (see the box ‘The shift in Italian banks’ retail funding’).

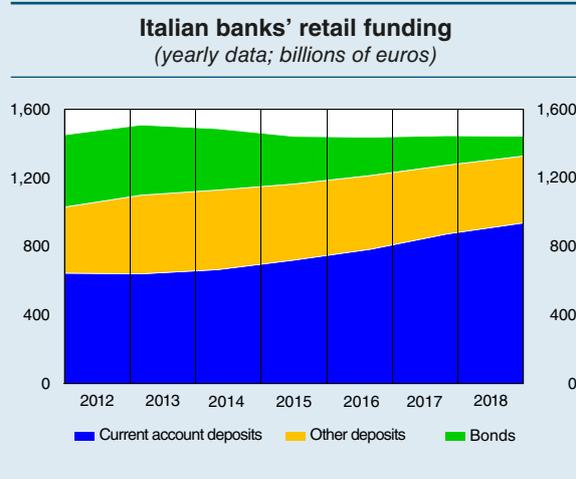
#### THE SHIFT IN ITALIAN BANKS’ RETAIL FUNDING<sup>1</sup>

Between 2011 and 2018 retail funding as a proportion of total funding remained at around 60 per cent, but its composition changed considerably (see the figure). The decline in banks’ bond funding, which fell from €422 billion to €87 billion, was of a comparable size to the increase in current account deposits; at the end of 2018, these deposits accounted for 73 per cent of the deposits of households and firms, compared with 43 per cent in France and 66 per cent in Germany.

The insured share of retail funding increased from 44 per cent to 61 per cent on account of the replacement of bonds with deposits, making funding more stable. This replacement also helped to lower the cost of liabilities: approximately 40 per cent of the decline in the average cost of bank funding between 2011 and 2018 was due to the replacement of retail bonds with deposits. Lastly, the higher share of deposits is attenuating the transmission of financial market tensions to the cost of credit (see *Economic Bulletin*, 1, 2019).

Current account deposits are one of the most stable sources of funding for the banking system as a whole. At the individual bank level, they may be subject to short-term, sometimes broad, fluctuations. Accordingly, Italian banks should encourage the growth in other forms of longer-term deposits.

<sup>1</sup> By Luisa Carpinelli.

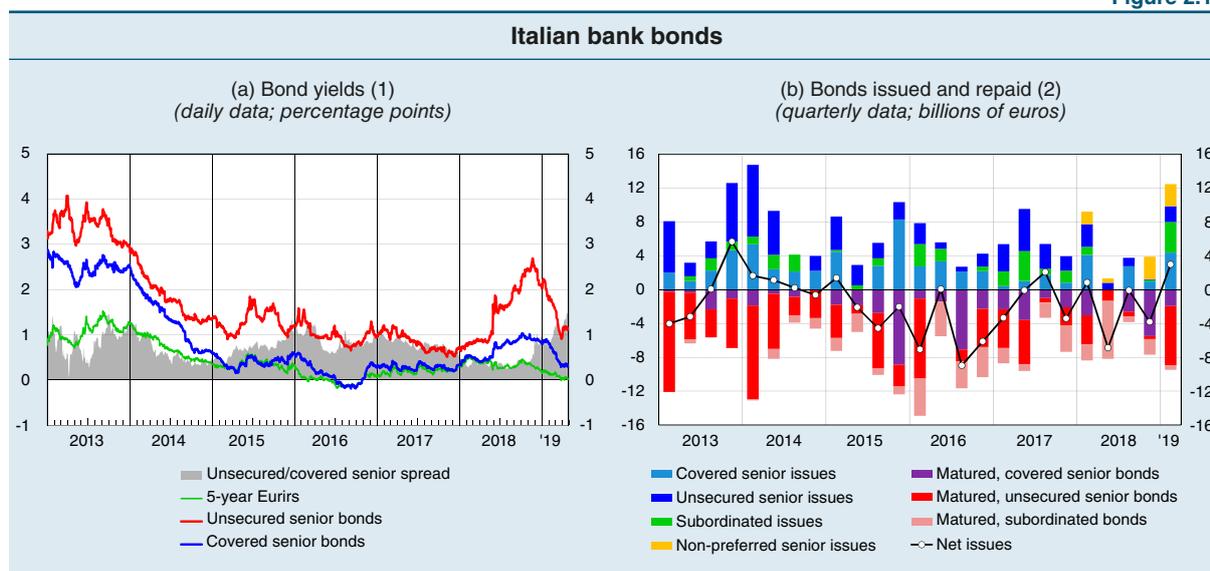


Source: Individual supervisory reports.

With the easing of tensions on the government securities market, Italian banks resumed issuing bonds on international markets, albeit at costs that are above those of the first half of 2018 (Figure 2.15.a). Since November 2018, almost all the significant banks and three less significant banks have issued senior preferred securities, representing a total value of €6.8 billion (Figure 2.15.b). In the same period, two significant banks issued senior non-preferred securities<sup>4</sup> and other subordinated securities equalling €9 billion. Since the end of October, the average yield on five-year subordinated bonds has fallen by

<sup>4</sup> Senior non-preferred bonds are subordinated securities that are eligible for the minimum requirement for own funds and eligible liabilities (MREL).

Figure 2.15



Sources: Dealogic and Bloomberg.

(1) Yields at maturity of Italian bank bonds with a residual maturity of 5 years. – (2) 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 securitization operations.

1.5 percentage points to 3.2 per cent; however, it remains about 0.7 percentage points higher than the value recorded at the start of 2018.

A large amount of bank bonds will reach maturity by 2020: about €27 billion worth of bonds held by households and €49 billion held by institutional investors. As in years past, households may continue to substitute a large part of their maturing bonds with deposits. Placements on the wholesale market should be large enough to roll over the maturing bonds and to meet the need, which is especially high for some banks, to maintain the existing level of MREL-eligible funding. This may result in a large increase in the cost of funding.

Italian banks' short-term liquidity conditions are improving. Between the end of June 2018 and the end of January 2019, the liquidity coverage ratio (LCR) for the system as a whole increased by 14 percentage points to 173 per cent (Table 2.2). Our simulations based on January data demonstrate that an upward shift of the entire sovereign yield curve by 100 basis points would reduce the system's average LCR by 29 percentage points; the ratio would fall by a similar amount for both significant and less significant banks.

Liquid assets are higher than the regulatory requirements also over the medium-term. In December 2018, the net stable funding ratio (NSFR), which will become a binding requirement for European banks in 2021,<sup>5</sup>

Table 2.2

Liquidity coverage ratio (LCR) of Italian banks (per cent)		
	LCR (31 January 2019)	LCR (30 June 2018)
Significant banks (1)	163	145
Less significant banks (2)	256	232
<b>Total banking system</b>	<b>173</b>	<b>159</b>

Source: Consolidated supervisory reports for banking groups; individual supervisory reports 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.

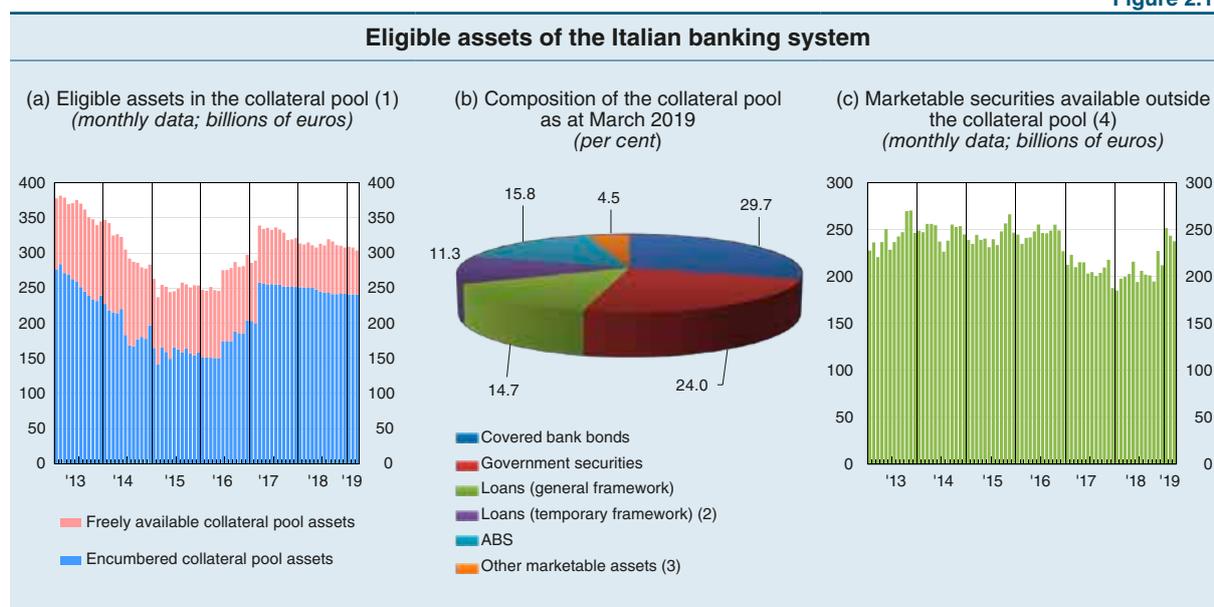
<sup>5</sup> The NSFR is provided for in the amendment to Regulation (EU) No 575/2016 (Capital Requirements Regulation 2, CRR2), which is currently in the process of being approved. It aims at encouraging a stable funding structure in relation to the composition of assets. It is calculated as the ratio between available stable funding (ASF) and required stable funding (RSF) over a one-year horizon; this ratio must be at least 100 per cent.

averaged 114 per cent for Italian significant banks.<sup>6</sup> None presented levels that were below the envisioned regulatory minimum requirement of 100 per cent, partly on account of recourse to Eurosystem longer-term refinancing operations.

In March, recourse to Eurosystem refinancing by counterparties operating in Italy amounted to about €240 billion. In the same month, the ECB announced a new series of targeted longer-term refinancing operations (TLTRO-III).<sup>7</sup> These will help to preserve favourable bank lending conditions and the smooth transmission of monetary policy. They will also help banks to gradually manage the outstanding TLTRO-II operations that are set to mature starting in June 2020.

The value of the assets eligible for use as collateral for Eurosystem refinancing operations deposited at the Bank of Italy (collateral pool) stands at about €305 billion (Figure 2.16.a), in line with the average levels observed in the last five years. Since November, the share of the collateral in the form of bank loans, including those used in securitized instruments such as covered bonds and asset-backed securities, increased by 4 percentage points to 72 per cent (Figure 2.16.b). Greater recourse to this form of collateral, whose share rose by more than 20 percentage points over the last five years, makes the value of the pool more stable in the face of market tensions.

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 Depositi e Prestiti SpA and Poste Italiane SpA. Securities eligible as collateral for the Eurosystem are deemed to be marketable. Amounts at market values as reported by the banks, net of the haircuts applied by the Eurosystem.

<sup>6</sup> Based on the data in the Qualitative Impact Study (QIS) coordinated by the Basel Committee.

<sup>7</sup> ECB, 'Monetary policy decisions', press release of 7 March 2019.

The use of UK-issued securities in the collateral pool is limited. In the absence of an agreement on the terms of the UK's withdrawal from the European Union, these securities would no longer be eligible for use in Eurosystem refinancing operations.<sup>8</sup>

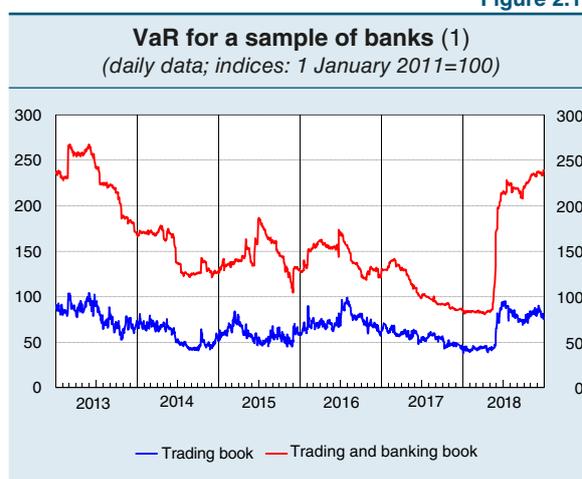
The reduction in the net debtor position on the repo market in the first few months of the year (see Section 2.1) resulted in a significant increase in the securities eligible for use as collateral in Eurosystem operations that are freely available outside the collateral pool (up by 12 per cent to €240 billion; Figure 2.16.c) and a decline in asset encumbrance (the share of assets used as collateral in relation to total assets). In December 2018 the share stood at 28.2 per cent for Italian banks overall and at 30.2 per cent for significant banks; our estimates indicate that these numbers have fallen to 27.3 per cent and 29.0 per cent respectively in February 2019.

### Market risk and interest rate risk

The high volatility of Italian government bond prices keeps the market risk at an elevated level. At the end of last year, for the five banks that use internal models for quantifying market risk, the Value at Risk (VaR) for the trading book remained at June levels (Figure 2.17). The VaR for all the positions increased slightly due to a greater exposure in terms of Italian government securities.

Italian banks' exposure to interest rate risk, measured by the change in the banking book value following a shift in the yield curve, was generally limited at the end of 2018, although it varied among the main banking groups. A parallel upward shift of 200 basis points would result in an average decline of 5 per cent of own funds for six significant banking groups (the values ranged from -1.7 to -5.7 per cent).<sup>9</sup> In contrast, the remaining five groups would benefit from an increase in interest rates.

Figure 2.17



Source: Data for the five banking groups that use internal models to measure market risk.

(1) Averages weighted according to the size of each bank's portfolio. VaR is the loss on a portfolio within a given time horizon (10 days) that will not be exceeded at a given confidence level (99 per cent). The indices reflect the changes in VaR for all the positions (securities and derivatives) in the balance sheet (red line) and in the trading book alone (blue line). A decrease indicates a reduction in risk.

<sup>8</sup> These securities would be comparable to those of the non-EEA G10 countries. Based on the rules on the use of collateral, the following would lose their eligibility: (a) asset-backed securities with a UK issuer and/or originator; (b) securities denominated in suitable non-euro currencies (US dollar, yen, pound sterling and Swiss franc) issued by UK entities; (c) unsecured bank bonds (UBBs) issued by UK banks. Moreover, with the exclusion of asset-backed securities and UBBs, UK-issued securities could be eligible, subject to the presentation of a legal opinion attesting that, in the event of the conferral of collateral, the UK legal system would be capable of adequately protecting the rights of the Eurosystem.

<sup>9</sup> The exposure to interest rate risk for prudential purposes is calculated by the banks based on EBA guidelines (EBA, *Guidelines on the management of the interest rate risk arising from non-trading activities*, May 2015). The results are transmitted to the supervisory authorities for use in the Supervisory Review and Evaluation Process (SREP). The exposure is calculated by estimating the effect of a shift in the yield curve on its banking book, taking account of the maturity or expected financial duration of all balance sheet items (see the box 'The methodologies for measuring interest rate risk', *Financial Stability Report*, 1, 2010); the scenarios are defined by the EBA and include a shift of 200 basis points in the risk-free yield curve. The regulatory threshold at which a change in the net book value would trigger a more thorough assessment by the supervisory authorities is 20 per cent of own funds.

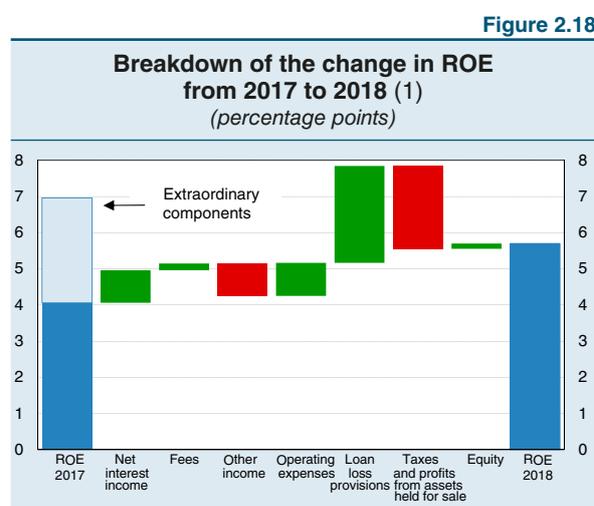
## Capital and profitability

At the end of 2018, the ratio between common equity tier 1 and risk-weighted assets (CET1 ratio) of Italian banks amounted to 13.3 per cent, an increase of 10 basis points compared with June. The improvement was mainly related to the less significant banks, whose CET1 ratio rose by about 30 basis points to stand at 16.5 per cent. This improvement was partly on account of the reduction in risk-weighted assets following the decline in NPLs. The capital ratios for the significant groups remained stable at 12.7 per cent.

Compared with June 2018, the gap between the average capital ratios of the main European banks and that of Italian significant banks widened by 20 basis point to 200 points. The leverage ratio, which measures capital adequacy relative to non-risk-weighted assets, is instead slightly higher for Italian banking groups (5.6 per cent) than the average for the main European banking groups (5.5 per cent). The results of the EBA stress tests published in November 2018 indicate that the capital position of the main Italian banks is capable of withstanding macroeconomic scenarios that are more severe than those that are currently incorporated in the forecasts of the main international institutions (see the box ‘The result of the EU-wide stress tests’, *Financial Stability Report*, 2, 2018).<sup>10</sup>

The capital of Italian banks is less exposed to changes in the prices of government securities, largely as a result of the securities being reallocated in the amortized cost portfolio. According to our simulations, based on the characteristics of the individual securities held at the end of 2018, a parallel upward shift of 100 basis points in the sovereign yield curve would result in a 40 basis point decline in the CET1 ratio,<sup>11</sup> 10 points lower than at the end of June 2018 (see the box ‘The implications for the Italian economy of an increase in the yields on government securities’, *Financial Stability Report*, 2, 2018). Less significant banks are more exposed to an increase in yields because they have a higher ratio of government securities to assets. As a result, their CET1 ratio would decline by an average of about 65 basis points, compared with 30 basis points for significant banks.

The profitability of Italian banks improved in 2018. ROE, excluding extraordinary components, rose to 5.7 per cent from 4.1 per cent in 2017. For significant banks it rose from 4.7 per cent to 6.2 per cent and for less significant banks, from 1.6 to 4.0 per cent; however, more than 10 per cent of the latter have recorded losses. The overall improvement is mostly due to fewer loan loss provisions, which declined by a third, and the 3.9 per cent reduction in operating costs (Figure 2.18). The cost-income ratio fell by 3 percentage points to



Source: Consolidated supervisory reports for banking groups and individual supervisory reports for stand-alone banks.

(1) Changes are expressed as a ratio to own funds and reserves. A green/red bar indicates a positive/negative contribution to ROE at the start of 2017, giving the final ROE value for 2018. Data for 2018 are provisional.

<sup>10</sup> Under the adverse scenario, the EBA stress tests consider a decline in GDP of 0.6, 1.5 and 0.6 per cent for 2018, 2019 and 2020 respectively. In this scenario the fully loaded CET1 ratio of Italian banks would decline on average by 3.9 percentage points at the end of the three years 2018-20. The impact for the individual banks would be between 3.2 and 5.3 percentage points.

<sup>11</sup> The estimates do not take account of any coverage instruments or tax effects. Moreover, they do not take account of government securities held by foreign subsidiaries or by the insurance arm of Italian banking groups, whose holdings are significant in some cases.

66 per cent. The decline in loan loss provisions brought the average credit risk cost, measured as the ratio of the flow of loan loss provisions to the average value of the loans, to the lowest level recorded in the last ten years (0.7 per cent).

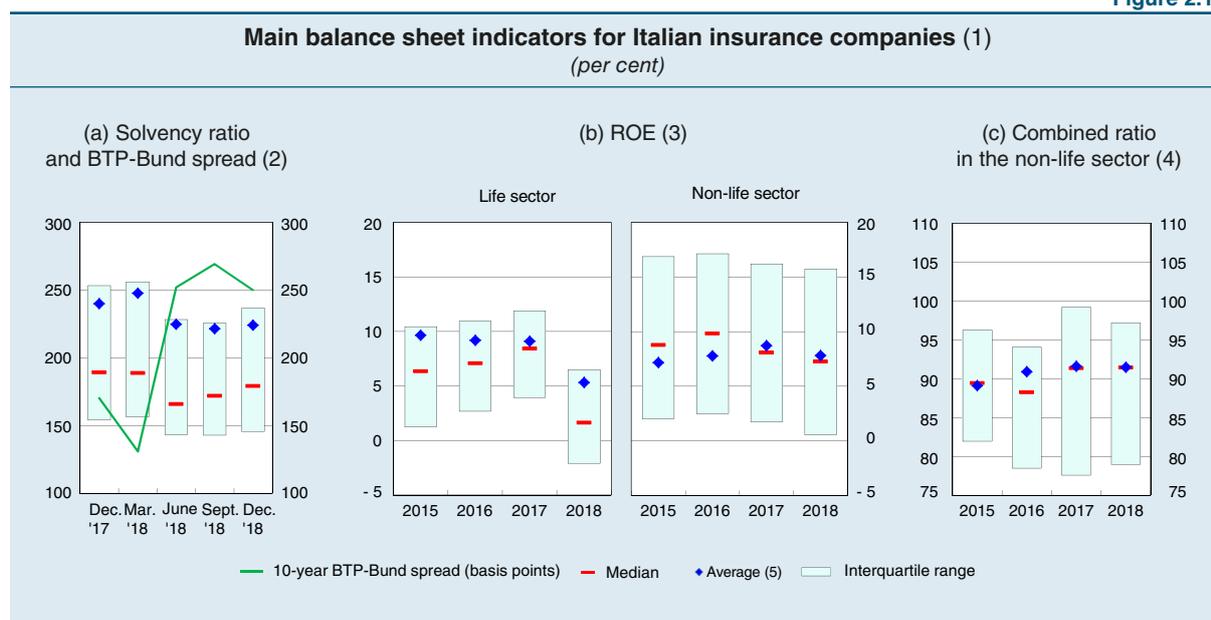
The economic slowdown limits the possibility of increasing interest income and, should it persist, may cause credit risk costs to rise again. In addition, new increases in market volatility may lower subscriptions to asset management products and reduce fees. Greater operational efficiency must be pursued in order to sustain profitability.

## 2.3 INSURANCE COMPANIES AND THE ASSET MANAGEMENT INDUSTRY

### Insurance

The price volatility of government bonds continues to be an important source of risk for Italian insurance companies, which invest a large share of their assets in these securities. After the sharp fall recorded in mid-2018 (see *Financial Stability Report*, 2, 2018), the average solvency ratio stabilized. At the end of the year, it stood at 224 per cent, well above the regulatory minimum of 100 per cent (Figure 2.19.a), but 16 percentage points lower than at the end of 2017.

Figure 2.19

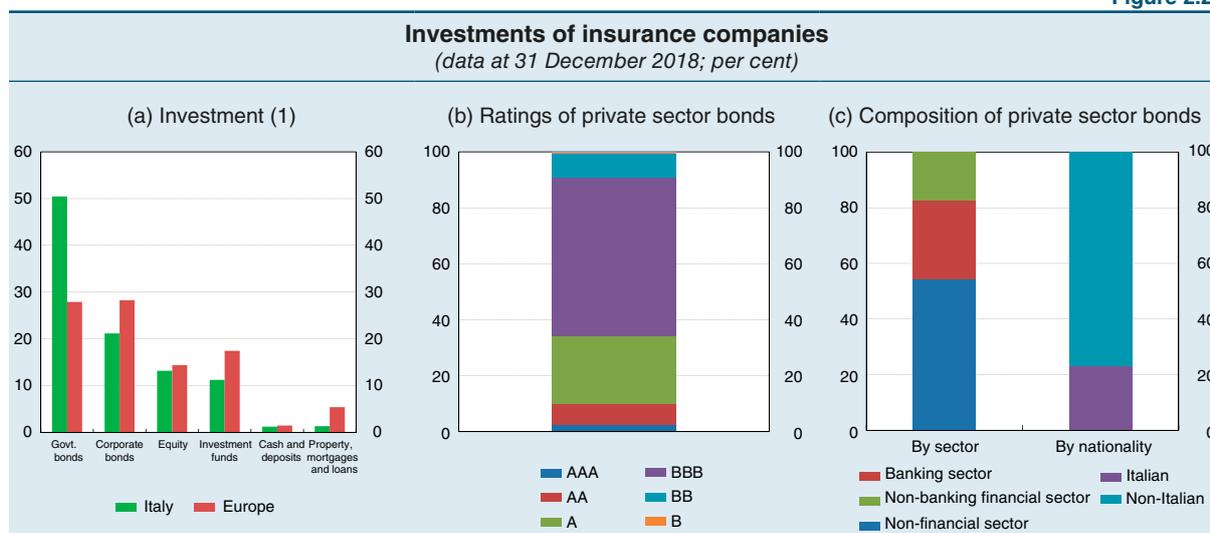


Sources: IVASS and Thomson Reuters Datastream.

(1) Preliminary data for 2018. – (2) 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 template. – (3) Ratio of earnings to shareholders' equity. – (4) Ratio of incurred losses plus operating expenses to premium income for the period. – (5) Weighted average with weights equal to the denominator of each ratio.

Italian companies' heavy exposure to sovereign risk is linked to their need to invest a large share of their portfolio in fixed income securities to align the yields and maturities of their assets with liabilities, mainly composed of medium and long-term policies, many of which offer guaranteed minimum returns. Partly owing to the limited development of the private bond market in Italy, public sector securities account for 50 per cent of the total investment for which risk is borne by the insurance companies, a level that is well above the European average (Figure 2.20.a). The share of private bonds is instead less than that of

Figure 2.20



Sources: IVASS and EIOPA.  
(1) Data as at 30 September 2018. For Europe, the data refer to the European Economic Area.

the other countries and is mainly made up of securities issued by foreign firms with a high credit rating (Figures 2.20.b and 2.20.c).

Based on 2018 balance sheets, our simulations indicate that a parallel upward shift of 100 basis points in the overall bond yield curve, driven by a rise in risk premiums, would reduce the value of assets net of liabilities by about 20 per cent on average.<sup>12</sup>

A report published by the European Insurance and Occupational Pensions Authority (EIOPA) says that in 2017 the use and the effect of the measures provided for in the Solvency II Directive for products with long-term guarantees (LTGs), intended to mitigate the procyclical effects of excessive price volatility on the market, were not uniform among European countries:<sup>13</sup> the application of the volatility adjustment – which is still the measure most used by insurance companies<sup>14</sup> and the only one being applied in Italy – has improved the average solvency ratio of Italian insurance companies by 6 percentage points, against an average of 17 points for European companies. The European Parliament and the Council have recently agreed on an amendment to the volatility adjustment, which may have positive effects for Italian companies’ solvency position as well, by mitigating the impact on their balance sheets of particularly significant changes in government bond risk premiums, such as those that occurred in 2018.

The results of last year’s stress tests conducted by EIOPA and the Insurance Supervisory Authority (IVASS) indicate that the main Italian insurance groups are able to withstand the impact of particularly severe shocks to financial, demographic, and insurance variables (see the box ‘The results of the insurance stress tests’).

<sup>12</sup> The impact of the growth in bond yields would be mitigated by the measures provided for in the Solvency II Directive for products with long-term guarantees. For the methodology, see the box ‘The implications for the Italian economy of an increase in the yields on government securities’ in *Financial Stability Report*, 2, 2018.

<sup>13</sup> The sample comprised 2,912 companies in the European Economic Area, of which 98 were Italian, see EIOPA, *Report on long-term guarantees measures and measures on equity risk 2018*, 18 December 2018.

<sup>14</sup> There were 696 European companies that reported using the volatility adjustment, with a market share of 66 per cent in terms of technical provisions.

## THE RESULTS OF THE INSURANCE STRESS TESTS<sup>1</sup>

Last December the European Insurance and Occupational Pensions Authority (EIOPA) published the results of the stress test on the 42 leading European insurance groups, which include Assicurazioni Generali, Unipol Gruppo, Intesa Sanpaolo Vita and Poste Vita.<sup>2</sup> The exercise was conducted in collaboration with the national supervisors and assessed the resilience of the European insurance market on the basis of balance sheet data for the end of 2017. Italy's Insurance Supervisory Authority (IVASS) extended the stress test to an additional eight Italian insurance groups.<sup>3</sup>

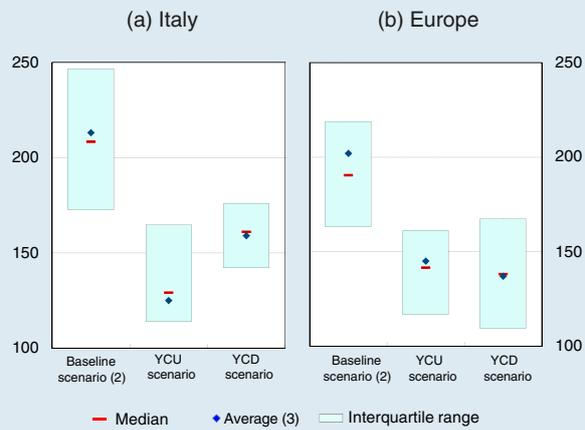
The exercise assessed the impact on solvency ratios of three adverse scenarios, which combine shocks on financial, demographic and insurance variables.<sup>4</sup> The first scenario (yield curve up, YCU) assumes a sharp fall in financial asset prices, with a concurrent rise in lapses in the life sector and claims in the non-life sector.<sup>5</sup>

The second scenario (yield curve down, YCD) assumes a fall in yields, with a simultaneous increase in the longevity rate of the insured population.<sup>6</sup> The third scenario (natural catastrophe, NC) deals with the possibility of natural catastrophic events occurring concurrently in different places across Europe.

The results show that for the 12 Italian insurance groups the reduction in the solvency ratio is, on average, greater than that of the other European insurance groups in the YCU scenario, smaller in the YCD scenario (see the figure), and about the same in the NC scenario. On average, the ratio remains above the regulatory minimum in all the scenarios.

Under the YCU scenario, the vulnerability of Italian insurance groups was related to the life sector, which is more exposed than the non-life sector to changes in asset values and to lapses. The life

**Solvency ratio under different scenarios (1)**  
(per cent)



Sources: IVASS and EIOPA.

(1) The European sample comprises groups that are significant for financial stability purposes (with assets of more than €12 billion). In addition to the 4 insurance groups included in the European sample, the Italian sample also includes an additional 8 groups with assets of more than €2 billion. – (2) Solvency ratio at the reference date of the stress test (31 December 2017). – (3) Weighted average with weights equal to the solvency capital requirement.

<sup>1</sup> By Federica Pallante (IVASS).

<sup>2</sup> For a summary of the results and a description of the stress test scenarios, see EIOPA's website: 'Stress Test 2018'.

<sup>3</sup> These are groups with assets exceeding €2 billion.

<sup>4</sup> The insurance stress test is not a 'pass-fail' exercise and its objective is not to identify capital strengthening measures: the post-stress solvency ratio is used merely as an indicator of resilience along with other indicators such as the excess of assets over liabilities.

<sup>5</sup> With regard to the financial variables, the YCU scenario assumes, among other things: (a) a rise in the swap rates curve across all maturities; (b) an increase in government bond yields (e.g. an increase of 205 basis points for 10-year Italian government bonds and of 119 points for the corresponding German bonds); (c) an increase in yields on private sector bonds differentiated by rating, sector and geographical area; and (d) a decline in the value of shares (e.g. a 40 per cent fall for Italian shares).

<sup>6</sup> With regard to the financial variables, the YCD scenario assumes, among other things: (a) a fall in the swap rates curve across all maturities; (b) a decrease in government bond yields (e.g. a reduction of 20 basis points for 10-year Italian government bonds and of 44 points for the corresponding German bonds); (c) a decline in yields on private sector bonds differentiated by rating, sector and geographical area; and (d) a decline in the value of shares (e.g. a 19 per cent fall for Italian shares).

sector in Italy accounts for 76 per cent of total premiums, a much higher share than in the other main euro-area countries (59 per cent in France, 50 per cent in Germany and 44 per cent in Spain).

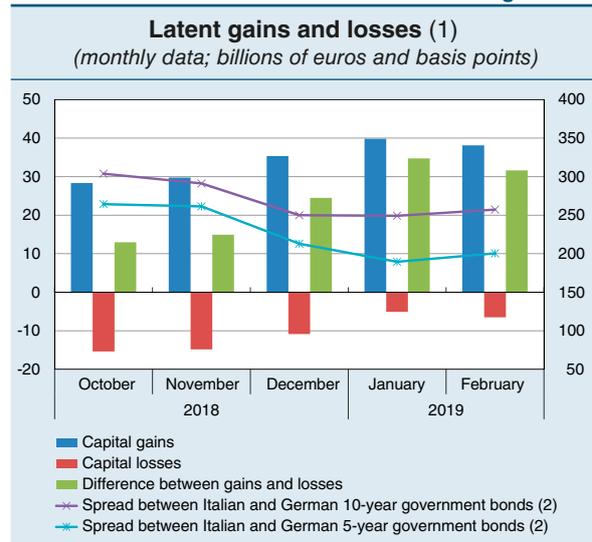
In the stress tests, the application of the measures regarding long-term guarantees (LTGs) attenuated the reduction in the average solvency ratio.

In 2018 Italian insurers' ROE fell significantly, to 6.4 per cent, 2.6 percentage points less than in 2017 (Figures 2.19.b and 2.19.c). The fall was more marked in the life sector (3.8 percentage points), following companies' write-downs on securities. Since November 2018, the increase in the prices of Italian government bonds has led to an increase in the balance of latent gains and losses (Figure 2.21), with a positive effect on profitability. Expectations of earnings growth were reflected in the share prices of the main insurance companies (Figure 2.22).

The liquidity position of insurance companies has not recorded any significant changes. The ratio of surrenders to premiums has remained at historically low levels, even in the face of the market tensions observed in May 2018.

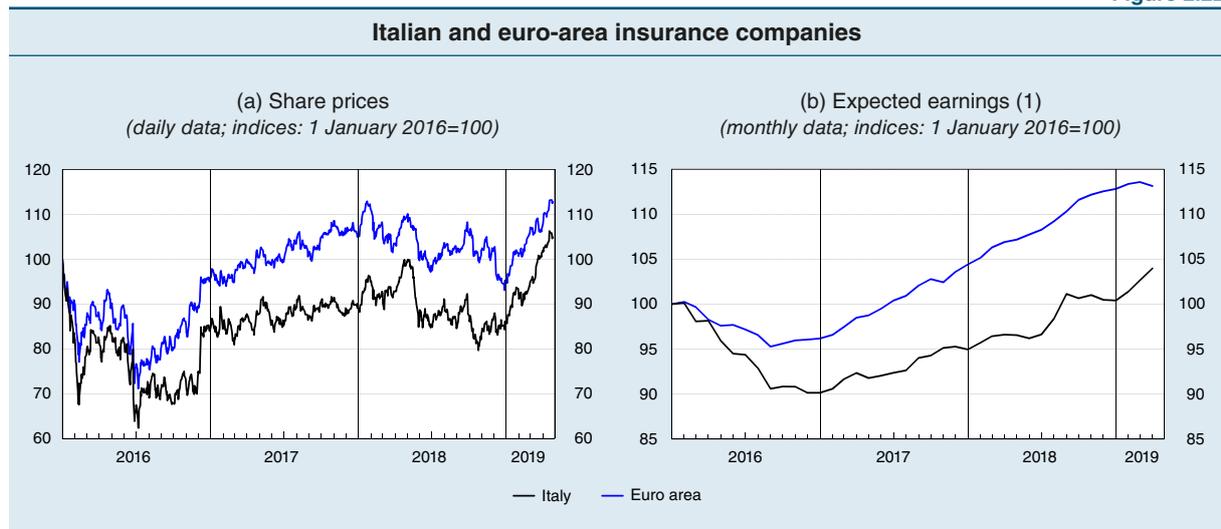
Italian companies' exposure to financial derivatives is very small. At the end of last year the market value of these contracts was €1.5 billion, accounting for 0.2 per cent of all investment, a considerably lower share than the

Figure 2.21



Sources: IVASS and Thomson Reuters Datastream.  
 (1) The latent gains and losses are the difference between the market value and the book value, based on the cost principle, of portfolio securities. –  
 (2) Right-hand scale.

Figure 2.22



Source: Based on Thomson Reuters Datastream 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, Società Cattolica Assicurazioni and UnipolSai. For the euro area the data refer to the main companies included in the Datastream euro-area insurance sector index.

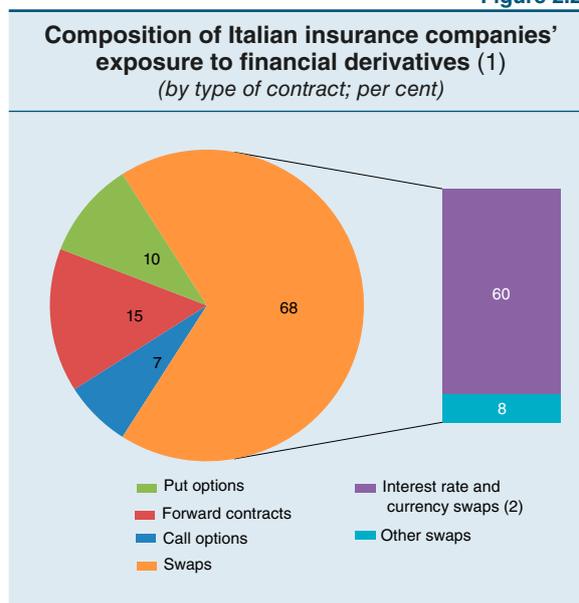
European average of 1.8 per cent in September 2018. Most contracts (80 per cent) were coverage instruments, mainly interest-rate swaps (Figure 2.23). Nearly all the positions are traded over the counter, predominantly with British counterparties. Given the low value of positions overall, the risks connected with such contracts stemming from the UK's withdrawal from the European Union are limited.

### The asset management industry

Since October 2018, following the slowdown observed in the first part of last year, Italian open-end investment fund subscriptions remained at a low level (Figure 2.24.a). Investors' choices were directed towards sub-sectors with lower risk. The funds sold their foreign assets and, as prices picked up, in November and December they purchased Italian government securities (Figure 2.24.b).

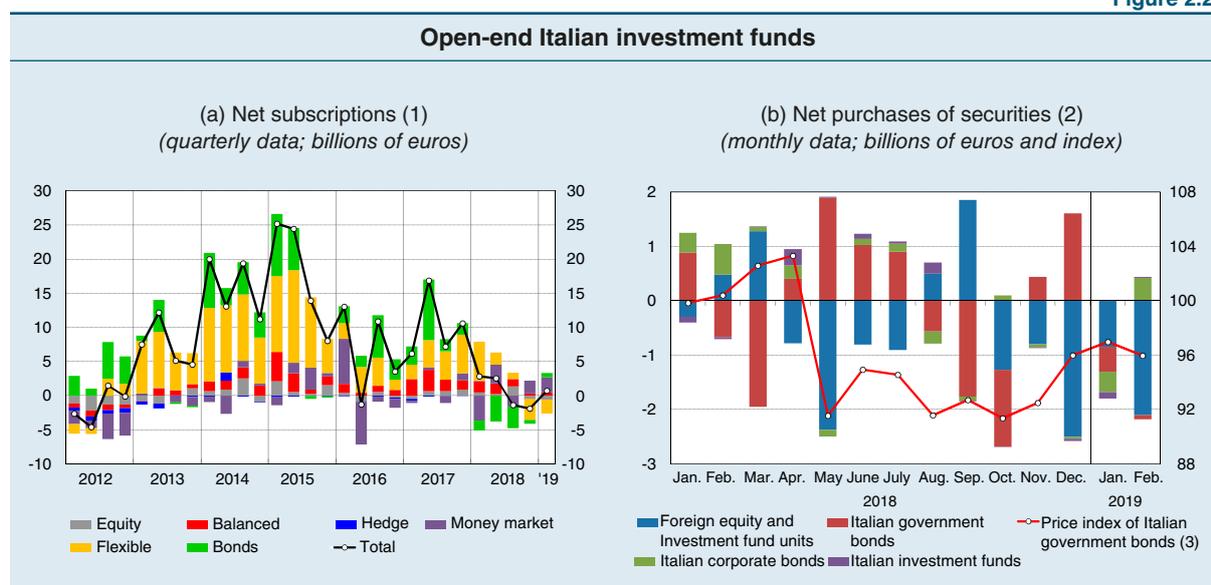
Between January 2017 and June 2018, net investment in funds that are compliant with the rules on long-term individual savings plans (PIRs) came to about €13 billion, accounting for almost 70 per cent of the total funding of Italian open-end investment funds. In the second half of last year, inflows of funds towards PIRs recorded a sharp fall (Figure 2.25). However, there were relatively few redemptions of units as a result of tax incentives for those holding on to them for a minimum

Figure 2.23



Source: IVASS.  
(1) Data at 31 December 2018. – (2) The 'interest rate and currency swaps' category is almost entirely made up of interest rate swaps.

Figure 2.24

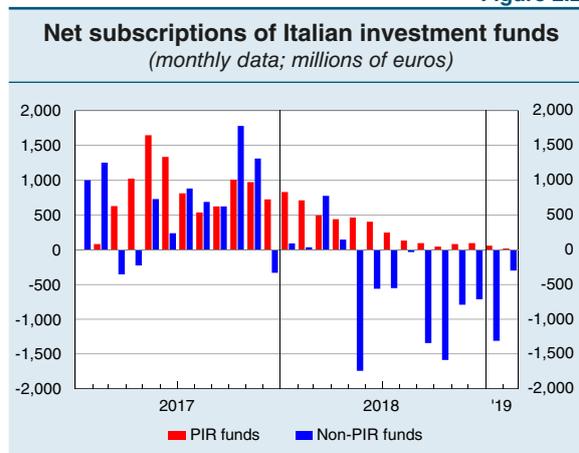


Sources: Assogestioni, supervisory reports and data from Thomson Reuters Datastream.  
(1) Data on funds based in Italy and abroad, managed by asset management companies belonging to Italian groups. The data on the money market segment for Q1 and Q2 of 2016 and for Q1 of 2018 reflect several large transactions by institutional investors. Provisional data for Q1 2019. – (2) Italian funds only. – (3) Datastream index of 10-year Italian government bonds; December 2017=100. Right-hand scale.

of five years. Since January, subscriptions have more or less dried up following legislative changes introduced with the latest budget law. The management companies, while waiting for the implementing decrees to be issued, have not set up any new funds; subscriptions have been limited to only those PIRs that were established before the introduction of the new rules (see the box ‘The impact of recent changes in the rules on PIR funds’).

Property funds continue to grow (Figure 2.26.a): their assets increased by 10 per cent in 2018, exceeding €80 billion; the value of property transactions remains high, although it is slightly below the 2017 level (Figure 2.26.b).

Figure 2.25



Source: Supervisory reports.

### THE IMPACT OF RECENT CHANGES IN THE RULES ON PIR FUNDS<sup>1</sup>

The introduction of individual savings plans (*piani individuali di risparmio* or PIR funds)<sup>2</sup> in early 2017 encouraged the launch of investment funds specializing in the Italian share and bond markets. Thanks to regulatory constraints, more than 50 per cent of the assets managed by Italian PIR funds are invested in securities issued by resident non-financial companies, compared with about 2 per cent on average for the other kinds of funds (see the table). This has led to an increase in liquidity on the Italian securities market, encouraging new company listings (see the box ‘Investments of open-end Italian investment funds that comply with the rules on individual savings plans (PIR)’, in *Financial Stability Report*, 1, 2018).

As part of a programme for the development of small and medium-sized enterprises (SMEs), the 2019 budget law (Law 145/2018) amended the rules on PIR funds by requiring them to invest part of the portfolio in financial instruments issued by Italian SMEs and in venture capital funds.<sup>3</sup>

These investments are relatively risky and they are characterized by low liquidity, partly because the markets for securities issued by smaller firms are of limited size. At the end of 2018, the Italian Stock Exchange’s Alternative Investment Market (AIM) only listed just over 60 securities issued by Italian

<sup>1</sup> By Mario Cappabianca and Giovanni Guazzarotti.

<sup>2</sup> The 2017 budget law (Law 232/2016).

<sup>3</sup> As regards the tax incentives, the previous rules established that at least 70 per cent of the total value of the assets must be invested in financial instruments, including unlisted instruments, issued by companies resident in Italy or in EU member states or in states belonging to the European Economic Area (EEA) with a stable presence in Italy. Of this 70 per cent, at least 30 per cent must be invested in financial instruments issued by firms other than those included in the FTSE MIB index of the Italian Stock Exchange or in equivalent indices on foreign regulated markets (see the box ‘Individual savings plans’, in *Financial Stability Report*, 2, 2017). The new rules provide that the 70 per cent share indicated in the original law shall now be made up of (a) the abovementioned 30 per cent share; (b) financial instruments issued by SMEs and listed on multilateral trading facilities (at least 5 per cent); and (c) venture capital funds domiciled in Italy or in the EU or the EEA (at least 5 per cent). In turn, at least 70 per cent of the capital raised by these funds must be invested in unlisted Italian SMEs or foreign SMEs that have a stable presence in Italy. The launch of the new PIR funds requires a ministerial decree to be issued that defines the implementation procedures and criteria, according to the limits and compliance conditions established by the EU on the subject of aid to SMEs.

non-financial SMEs, with total capital of about €3 billion and an average float<sup>4</sup> of 30 per cent. Last year almost half of these securities were recorded as untraded for at least a quarter of the trading days. In Italy, there are just over 30 Italian venture capital funds and their total assets amount to about €500 million. Only some of these funds meet the requirements of the new PIR fund rules.<sup>5</sup>

The new rules may encourage smaller firms to issue securities and to diversify their sources of funding. Nevertheless, these rules increase the risk profile of PIR funds, which are products intended for households' savings. The new rules could also make it more difficult to comply with the prudential requirements of diversification and liquidity established for existing PIR funds, all in the form of open-end funds.<sup>6</sup> There is a greater risk that these funds will record losses from sales of assets in markets with limited liquidity, in the event of high price volatility that leads subscribers to liquidate their investment before taking advantage of the tax benefits. These losses could have negative effects on PIR fund returns and on the reputation of the financial intermediaries that sell them. Precisely so as to limit such risks, Italian open-end funds' investments in Italian SME securities and in venture capital funds are currently virtually nil.

<sup>4</sup> The quantity of shares available for trading on the stock exchange.

<sup>5</sup> Venture capital funds are also basically illiquid instruments. They are usually reserved to professional investors and must be closed-end funds, thereby removing the possibility of early redemptions. The portfolio is usually only valued once every six months. On the other hand, for harmonized open-end funds, which invest in more liquid assets and can also be sold to retail investors, the law prescribes intervals of at least 15 days as regards both the valuation of net assets and redemptions of investors' shares.

<sup>6</sup> The rules require that open-end funds falling under the UCITS Directive (harmonized open-end funds, i.e. undertakings for collective investment in transferable securities) must comply with a 10 per cent limit on the share of their portfolio that can be invested in securities that are not traded in a regulated market. Further prudential limits, that vary according to type of investment, require that portfolios are appropriately diversified.

#### Investments of Italian investment funds (December 2018; per cent)

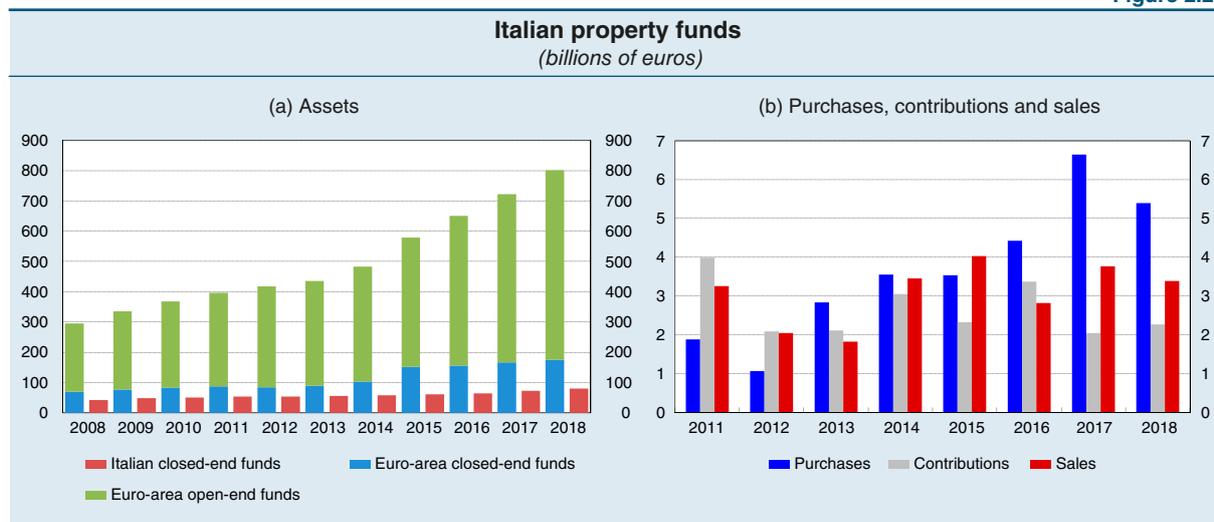
	PIR-compliant funds	Non-PIR-compliant funds
Securities issued by non-residents	14.4	63.0
Securities issued by residents	85.6	37.0
Government securities	3.2	26.6
Investment fund units	0.0	4.7
<i>of which: closed-end funds</i>	0.0	0.0
Securities of non-financial companies	51.8	2.1
Shares	31.8	0.9
<i>of which: SMEs</i>	1.5	0.0
SMEs listed on the AIM Italia market	0.5	0.0
Bonds	20.0	1.2
<i>of which: SMEs</i>	0.1	0.0
Securities of financial companies	30.6	3.6
Shares	12.6	0.4
Bonds	18.0	3.2
<b>Total</b>	<b>100.0</b>	<b>100.0</b>
Billions of euros	14.4	206.4

Source: Supervisory reports.

The expansion, which only involves the segment reserved to professional investors, is mainly buoyed by foreign investment. New initiatives have mainly concerned commercial properties and offices in northern Italy, especially in the province of Milan. On the other hand, in the segment devoted to retail investors, there were no new initiatives and the sector's assets (equal to €2 billion) continued to decline as existing funds reached maturity.

The profitability of reserved property funds has, on average, remained slightly positive, while that of retail funds has remained negative and has declined further (Figure 2.27.b), mainly because of the losses on sales and falling property prices (Figure 2.27.a). In the latter segment, where the funds are all close

Figure 2.26

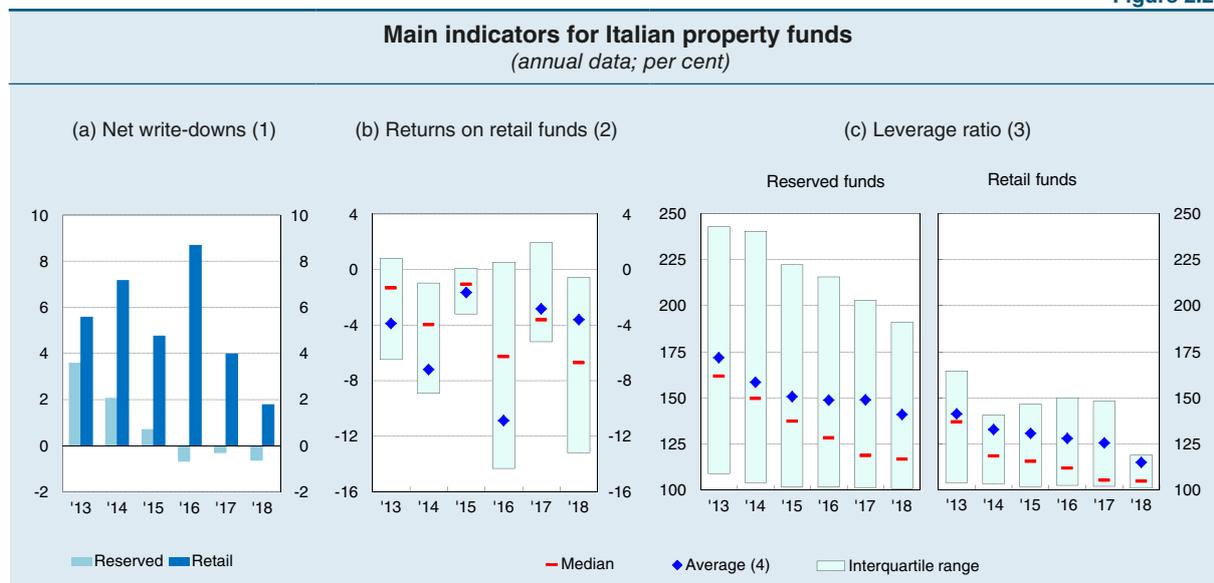


Source: Supervisory reports.

to maturity, there is less possibility that managers will profitably sell off the residual portfolio and asset sales are often made at prices far below the values that independent experts estimate and enter in the financial statements (see the box ‘The impact of the real estate cycle on Italy’s property fund sector’ in *Financial Stability Report*, 1, 2017). The losses recorded since the start-up of several retail funds that reached maturity in recent months expose the intermediaries in charge of placements, and the fund managers themselves, to reputational risks.

The risks to financial stability stemming from property funds remain limited. The funds that have been started up more recently have a lower level of debt and the average financial leverage of the sector

Figure 2.27



Source: Supervisory reports.

(1) Ratio of balance sheet write-downs net of revaluations to average total assets at the end of the reference year and of the previous year. – (2) Ratio of profits to the average of net assets at the end of the reference year and of the previous year. – (3) Ratio of total assets to net equity. – (4) Weighted average with weights equal to the denominator of each ratio.

continues to fall, as regards both retail funds and reserved funds (Figure 2.27.c). Reserved funds that at end-2018 recorded a negative net asset value account for just over 2 per cent of the sector's assets. The overall exposure of banks and other financial intermediaries to this sector remains moderate (less than 1 per cent of total loans).

# 3 MACROPRUDENTIAL MEASURES

The macroprudential policy decisions taken by the Bank of Italy since last November have regarded setting the countercyclical capital buffer (CCyB), identifying global systemically important institutions (G-SIIs) and, at domestic level, other systemically important institutions (O-SIIs), as well as defining the relative capital buffers (Table 3.1). Requests for reciprocation of macroprudential measures adopted in Belgium, France and Sweden were also assessed.

**Table 3.1**

<b>Recent macroprudential policy decisions of the Bank of Italy (1)</b>			
	Decision	Capital requirement for this year (per cent)	Fully phased-in capital requirement (per cent) (2)
30 November 2018	Identification of the UniCredit, Intesa Sanpaolo and Banco BPM banking groups as O-SIIs authorized to operate in Italy for 2019 and setting of the related capital requirement ratios:		
	UniCredit (3)	0.50	1.00 (2021)
	Intesa Sanpaolo	0.38	0.75 (2021)
	Banco BPM	0.06	0.25 (2022)
14 December 2018	Identification of the UniCredit group as a G-SII and setting of the related capital requirement ratio (3)	1.00	1.00
20 December 2018	Decision not to reciprocate a macroprudential measure applied by Belgium concerning banks' exposures to its real estate market	–	–
21 December 2018	Setting of the CCyB rate for the first quarter of 2019	0.00	–
22 March 2019	Setting of the CCyB rate for the second quarter of 2019	0.00	–
26 April 2019	Decision not to reciprocate the macroprudential measures applied by France and by Sweden	–	–

(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.

In the first two quarters of 2019 the CCyB rate has been kept at zero, taking account of the persistently weak macrofinancial cyclical conditions in Italy: the credit-to-GDP gap, a measure of the difference between the credit-to-GDP ratio and its long-run trend, is markedly negative (see Section 1.1); property prices are stable in real terms but remain significantly below their long-term levels; growth in business lending is shrinking again.

In 2018 the Bank of Italy again identified the UniCredit Group as a G-SII. The methodology used, which was established by European law,<sup>1</sup> is based on a range of indicators, including size, complexity,

<sup>1</sup> For further details on the methodology used to identify and classify G-SIIs, 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.

and degree of interconnectedness and internationalization. As of 1 January 2019, the UniCredit Group is required to maintain an additional capital buffer of 1 per cent of its total risk-weighted exposure.

For 2019 the Bank of Italy identified UniCredit, Intesa Sanpaolo and Banco BPM as O-SIIs, using the mandatory indicators set out in the Guidelines of the European Banking Authority (EBA). The indicators consider four characteristics: size, importance for the national economy, complexity and interconnectedness with the financial system.<sup>2</sup> The Monte dei Paschi di Siena Group was not identified as an O-SII (as it had been in 2018) because the indicator that measures the group's systemic importance at national level fell below the minimum identification threshold following a restructuring process that is still under way. The additional capital buffers that UniCredit, Intesa Sanpaolo and Banco BPM will be required to maintain will amount to, respectively, 1.00, 0.75 and 0.25 per cent of total risk-weighted exposures, to be phased in gradually (see Table 3.2). In accordance with European legislation, the higher between the G-SII and O-SII requirements will apply to the UniCredit Group. As of 1 January 2019, the Monte dei Paschi di Siena Group is no longer obliged to maintain any additional capital buffer.

**Table 3.2**

<b>Transitional regime applicable to the O-SII buffers</b> (per cent)				
<b>BANKING GROUP</b>	<b>From 1 Jan. 2019</b>	<b>From 1 Jan. 2020</b>	<b>From 1 Jan. 2021</b>	<b>From 1 Jan. 2022</b>
UniCredit	0.50	0.75	1.00	1.00
Intesa Sanpaolo	0.38	0.56	0.75	0.75
Banco BPM	0.06	0.13	0.19	0.25

The Bank of Italy assessed the requests for reciprocation relating to three macroprudential measures taken by the authorities in other EU countries.<sup>3</sup> Belgium's central bank and Sweden's financial supervisory authority adopted measures to reduce the risks connected with banks' retail exposures collateralized by residential housing located in the two countries.<sup>4</sup> The French macroprudential authority adopted a measure to address the risks stemming from the exposure of systemic banks (G-SIIs and O-SIIs) to large highly-indebted non-financial corporations in France.<sup>5</sup> Italian banks' exposures to the risks indicated by the three authorities are far below the minimum thresholds envisaged for the implementation of the measures by other countries.<sup>6</sup> The Bank of Italy accordingly decided not to apply any of the measures to Italian banks' exposures to these three countries; it will, however, change its decisions if circumstances so require.

<sup>2</sup> EBA, *Guidelines on the criteria to determine the conditions of application of Article 131(3) of Directive 2013/36/EU (CRD) in relation to the assessment of other systemically important institutions (O-SIIs)*, 16 December 2014. The Bank of Italy decided not to use optional indicators or to alter the threshold of 350 basis points set by the EBA for the identification of O-SIIs.

<sup>3</sup> The three measures were adopted in accordance with Article 458 of Regulation (EU) No. 575/2013 (Capital Requirements Regulation, CRR).

<sup>4</sup> The Belgian measure raises the risk weights on these exposures for banks that use internal models. The proposed measure consists of two parts: (a) a general risk weight add-on of five percentage points; (b) an additional macroprudential risk weight add-on as a proportional increase of 33 per cent. The Swedish measure envisages, for the banks that use internal models to calculate the capital requirements for credit risk, the application of an average risk weight floor of 25 per cent on banks' retail exposures secured by mortgages on residential property in Sweden.

<sup>5</sup> The French measure sets a limit – equal to 5 per cent of own funds – on the exposures of banks identified as systemically important to large highly-indebted non-financial corporations with registered offices in France.

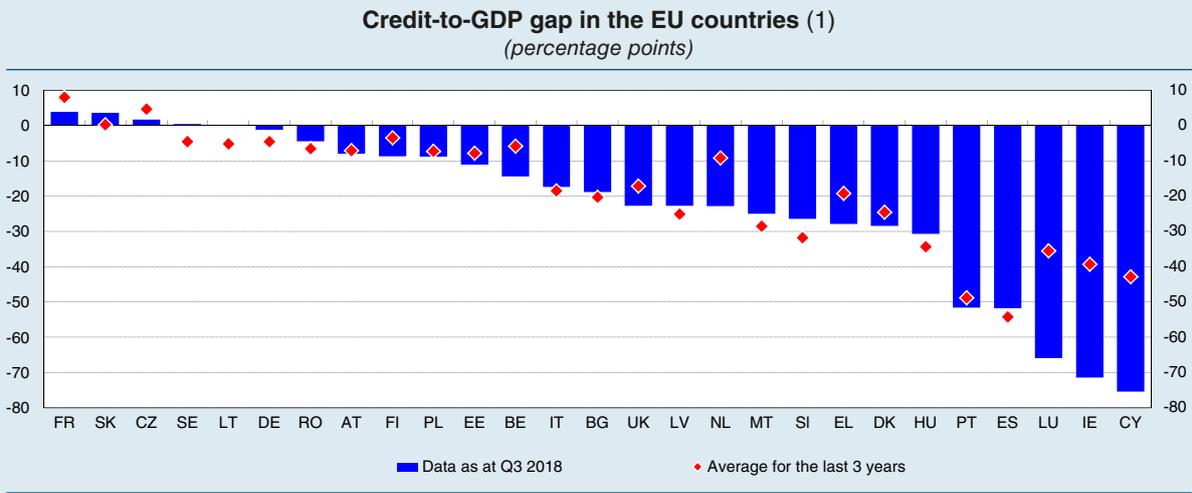
<sup>6</sup> The recommendations of the European Systemic Risk Board (ESRB) enable the national authorities to exempt banks whose exposures are below a minimum threshold and to not proceed with a request for reciprocation if the exposures of all the banks are below this threshold.

Other measures adopted in the EU related to the CCyB and the capital buffers for systemically important institutions (see the box “The main macroprudential measures recently adopted in the European Union”).

**THE MAIN MACROPRUDENTIAL MEASURES RECENTLY ADOPTED IN THE EUROPEAN UNION<sup>1</sup>**

*The countercyclical capital buffer (CCyB).* – In the majority of EU countries the difference between the credit-to-GDP ratio and its long-run trend (credit-to-GDP gap) continues to be negative (Figure A). In several countries, however, other reference indicators (growth in credit and in property prices) are consistent with a strengthening of the financial cycle. Accordingly, the number of member states in which the macroprudential authorities have set a positive CCyB rate or expect to raise it this year or next has gone up (see the table).

Figure A



Sources: ESRB and ECB, Statistical Data Warehouse.  
 (1) Calculated with reference to total domestic credit. The data for Croatia are not available. Country codes: FR=France; SK=Slovakia; CZ=Czech Republic; SE=Sweden; LT=Lithuania; DE=Germany; RO=Romania; AT=Austria; FI=Finland; PL=Poland; EE=Estonia; BE=Belgium; IT=Italy; BG=Bulgaria; UK=United Kingdom; LV=Latvia; NL=Netherlands; MT=Malta; SI=Slovenia; EL=Greece; DK=Denmark; HU=Hungary; PT=Portugal; ES=Spain; LU=Luxembourg; IE=Ireland; CY=Cyprus; HR=Croatia.

*Capital buffers for global systemically important institutions (G-SIIs) or other systemically important institutions (O-SIIs).* – In 2018 a total of 11 G-SIIs were identified in the EU (one fewer than in 2017),<sup>2</sup> located in France, Germany, Italy, the Netherlands, the United Kingdom and Spain. In addition to the G-SIIs, a further 179 intermediaries were identified as O-SIIs (panel (a) of Figure B), five fewer than in 2017. The reduction is mostly attributable to mergers and the transformation of bank subsidiaries into branches. A number of countries identified institutions with systemic importance scores below the EBA threshold as O-SIIs (panel (b) of Figure B).<sup>3</sup>

<sup>1</sup> By Paolo Garofalo. For details on the individual measures, see the table ‘National measures of macroprudential interest in the EU/EEA’ on the ESRB’s website; see also ESRB, *A Review of Macroprudential Policy in the EU in 2018*, April 2019.  
<sup>2</sup> The reduction is the result of the removal of Nordea and Royal Bank of Scotland from the list of G-SIIs and the reinsertion of Groupe BPCE (excluded in 2017).  
<sup>3</sup> The threshold for identifying O-SIIs is 350 basis points; the Guidelines nonetheless make it possible to apply, within certain limits, other thresholds to take account of the specificities of national banking systems.

### Countercyclical capital buffers in the EU countries

	Rate applicable (per cent)	As of	Rate announced (per cent)	As of
Austria, Belgium, Croatia, Cyprus, Estonia, Finland, Germany, Greece, Hungary, <b>Italy</b> , Latvia, Malta, Netherlands, Poland, Portugal, Romania, Slovenia, Spain	0.00	1 January 2016	–	–
Bulgaria	0.00	1 January 2016	0.50	1 October 2019
Denmark	0.50	31 March 2019	1.00	30 September 2019
France	0.00	1 January 2016	0.25	1 July 2019
Ireland	0.00	1 January 2016	1.00	5 July 2019
Lithuania	0.50	31 December 2018	1.00	30 June 2019
Luxembourg	0.00	1 January 2016	0.25	1 January 2020
United Kingdom	1.00	28 November 2018	–	–
Czech Republic	1.25	1 January 2019	1.50 1.75	1 July 2019 1 January 2020
Slovakia	1.25	1 August 2018	1.50	1 August 2019
Sweden	2.00	19 March 2017	2.50	19 September 2019

Source: ESRB.

Capital buffers for O-SIIs are being introduced gradually in most countries. In some cases it was decided to activate a systemic risk buffer (SyRB),<sup>4</sup> instead of<sup>5</sup> or in addition to<sup>6</sup> the O-SII requirement; this measure, whose transposition into national legislation is discretionary, can be applied to the entire system or to specific categories of banks and is designed to avert and mitigate the systemic risks associated with the structural characteristics of the national financial systems (e.g. disproportionate size relative to the economy or a high level of concentration).

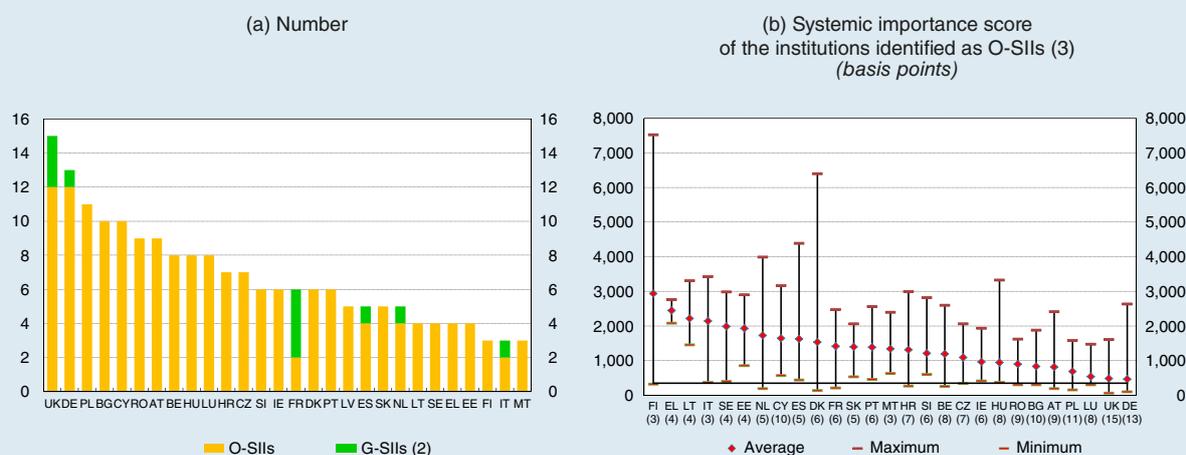
<sup>4</sup> The maximum capital reserve requirement for O-SIIs envisaged by CRD IV amounts to 2 per cent of total risk-weighted exposures. For the systemic risk buffer (SyRB), CRD IV envisages a minimum of 1 per cent but no maximum. Italy and Ireland did not transpose the systemic risk buffer.

<sup>5</sup> Denmark and the Czech Republic only applied the SyRB to the institutions identified as systemic at domestic level (OSIIs), in the belief that the 2 per cent limit on the O-SII buffer was insufficient to address the risks for these intermediaries in their country; the United Kingdom, which identified the O-SIIs but did not activate the related capital buffer, will introduce the SyRB in 2019.

<sup>6</sup> Austria, Bulgaria, Croatia, Estonia, Finland, Hungary, the Netherlands, Poland, Romania, Slovakia and Sweden.

Figure B

Systemically important institutions in EU countries (1)



Sources: Based on ESRB and national data.  
 (1) The data refer to the latest available information on the websites of the ESRB and of the national authorities. For Cyprus, the O-SIIs include 5 investment firms. For the country codes, see Note (1) of Figure A. – (2) All the G-SIIs in the EU have also been identified as O-SIIs. – (3) The numbers in brackets below the countries on the horizontal axis correspond to the number of O-SIIs in each country. The graph shows the countries for which the ESRB or the national authorities have published the scores assigned to individual institutions based on the methodology outlined in the EBA Guidelines. The horizontal line indicates the threshold of 350 basis points set by the EBA for the identification of O-SIIs.

As part of a broader review of EU banking legislation, changes were made to the macroprudential instruments (see the box ‘The main changes to the macroprudential instruments envisaged by European legislation’).

THE MAIN CHANGES TO THE MACROPRUDENTIAL INSTRUMENTS ENVISAGED BY EUROPEAN LEGISLATION<sup>1</sup>

On 16 April the European Parliament approved the provisional agreement reached with the Council in December 2018 on amending Directive 2013/36/EU (Capital Requirements Directive, CRD IV) on access to the activity of credit institutions and on the prudential supervision of credit institutions and investment firms, and Regulation (EU) No. 575/2013 (Capital Requirements Regulation, CRR) on prudential requirements for credit institutions and investment firms. Some of the amendments are designed to streamline the set of macroprudential instruments available to the authorities, with more precise indications on which instrument must be used to counter which risks, thereby reducing the overlap between the various measures and increasing the flexibility granted to authorities when it comes to their application.

First, it is no longer possible to use the Pillar II capital requirement envisaged under the Basel framework – an instrument of a microprudential nature – for macroprudential purposes, in order to counter systemic risks. At the same time, the authorities have been granted greater flexibility in using some macroprudential instruments, such as the capital buffer for other systemically important institutions (O-SIIs) and the systemic risk buffer (SyRB).

<sup>1</sup> By Francesco Ciampi and Paolo Garofalo.

In particular, the maximum O-SII buffer rate has been raised, from 2 to 3 per cent of total risk exposures,<sup>2</sup> as has the ceiling on the rate set for subsidiaries of O-SIIs.<sup>3</sup> The scope of application of the SyRB has also been extended and it can now be used to counter any macroprudential risk not already covered by the CCyB or by the capital requirements for systemically important institutions; it can also be applied in relation to both total exposures and to some specific categories of debtors. The SyRB requirement may be added to the capital buffers for O-SIIs or G-SIIs, with an overall cap of 5 per cent that can only be exceeded by the national authorities subject to authorization by the European Commission, the European Systemic Risk Board (ESRB) and the European Banking Authority (EBA).

The leverage ratio has been raised for global systemically important institutions (G-SIIs).<sup>4</sup> The purpose of this increase (leverage ratio buffer), equal to 50 per cent of the G-SII buffer,<sup>5</sup> is to ensure that for these banks too, the leverage ratio continues to be binding in a way that is comparable to that of the other intermediaries. In addition, the methodology for calculating the systemic importance indicator of these institutions has been revised to exclude the assets held by banking groups in EU member states from the calculation of the degree of internationalization.<sup>6</sup> Based on this new methodology, a European G-SII could be classified in a subcategory of global systemic importance that is below that identified using the previous methodology based on national borders, but in any event it will not be excluded from the list of global systemically important institutions.

The provisions of Articles 124 and 164 of the CRR Regulation on the capital required against exposures secured by immovable property have also been revised;<sup>7</sup> the scope of application has been made more flexible and can now also cover even just a part of the property market or a specific geographical area within a national territory.

Finally, the flexibility for using the measures adopted on the basis of Article 458 of the CRR regulation has been broadened:<sup>8</sup> such measures can now be extended by up to two years (currently by just one year).

<sup>2</sup> This limit can be exceeded subject to authorization by the European Commission, the European Systemic Risk Board (ESRB) and the European Banking Authority (EBA).

<sup>3</sup> The higher value between 1 per cent and the buffer rate applied to the parent company is replaced by the lower value between the rate applied to the parent company plus 1 per cent and 3 per cent (or the rate applied to the parent company if it exceeds 3 per cent).

<sup>4</sup> European legislation, in accordance with the provisions of the Basel Committee on Banking Supervision, establishes a minimum ratio of capital to total exposures of 3 per cent for all banks.

<sup>5</sup> For example, an additional leverage ratio buffer of 1 per cent and a minimum total leverage ratio of 4 per cent will apply to a bank that must maintain a G-SII buffer of 2 per cent of total risk-weighted assets.

<sup>6</sup> The methodology used to measure banks' systemic importance is based on a number of indicators, including size, complexity, interconnectedness and internationalization (see note 1 to this Chapter).

<sup>7</sup> These articles envisage the possibility for national authorities of setting, based on financial stability considerations and for exposures secured by immovable property, risk-weighting factors or a minimum loss given default that are higher than those ordinarily envisaged.

<sup>8</sup> These are national measures designed to combat macroprudential or systemic risks that can have repercussions on the financial system and the real economy. These measures enable the authorities in each country to set stricter prudential requirements than the standard ones in the areas of own funds, large exposures, public disclosure requirements, the level of the capital conservation buffer, liquidity, the real estate sector, and intra-financial sector exposures.

**SELECTED STATISTICS**



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Table A1

Financial sustainability indicators (per cent of GDP, unless otherwise specified)												
GDP (1) (annual growth rate)		Characteristics of public debt (2)				Primary surplus (2)	S2 sustainability indicator (3)	Private sector financial debt (4)		External position statistics (5)		
		Level		Average residual life of govt. securities (years)	Non-residents' share (% of public debt)			Households	Non-financial firms	Current account balance	Net International investment position	
2019	2020	2019	2020	2019	2018	2019	2017	2018	2018	2018	2018	
Italy	0.1	0.9	133.4	134.1	6.7	30.5	0.9	2.9	41.1	69.6	2.5	-3.9
Germany	0.8	1.4	56.9	53.8	5.9	52.2	1.8	1.7	52.9	56.8	7.3	60.6
France	1.3	1.4	99.2	98.7	7.5	53.8	-1.7	-0.1	60.1	141.1	-0.3	-11.4
Spain	1.8	1.7	96.0	94.9	7.4	49.7	-0.2	2.3	58.9	93.2	0.9	-77.1
Netherlands	2.5	2.3	52.0	49.9	7.2	42.1	1.6	3.0	102.0	171.9	10.8	68.9
Belgium	1.3	1.4	99.6	98.1	9.7	60.7	0.6	4.3	60.8	155.9	-1.3	43.9
Austria	2.0	1.7	71.2	68.4	9.9	74.2	1.0	2.6	49.7	89.0	2.3	3.8
Finland	1.9	1.7	59.9	59.0	6.5	65.5	-0.3	2.7	66.4	111.3	-1.9	-6.4
Greece	2.4	2.2	174.2	167.3	....	....	3.5	....	52.4	58.0	-2.9	-137.9
Portugal	1.7	1.5	119.5	117.3	6.2	56.1	2.5	0.7	66.9	100.6	-0.6	-100.8
Ireland	4.1	3.4	62.4	58.9	10.0	65.8	1.5	3.3	43.2	194.5	9.1	-142.5
Euro area	1.3	1.5	83.6	81.8	....	....	0.6	1.8	57.6	105.9	2.9	-3.8
United Kingdom	1.2	1.4	85.7	84.4	15.0	32.5	0.1	3.0	89.0	82.2	-3.9	-6.7
United States	2.3	1.9	106.7	107.5	5.7	30.3	-2.9	....	76.3	74.4	-2.4	-47.4
Japan	1.0	0.5	237.5	237.0	8.0	10.6	-2.7	....	55.3	102.6	3.5	62.6
Canada	1.5	1.9	88.0	84.7	5.5	22.5	-0.2	....	100.7	108.9	-2.6	23.8

Sources: IMF, Eurostat, BCE, European Commission, national financial accounts and balance of payments data.

(1) IMF, *World Economic Outlook*, April 2019. – (2) IMF, *Fiscal Monitor*, April 2019. – (3) European Commission, *Fiscal Sustainability Report 2018*, January 2019. S2 is a sustainability indicator defined as the immediate and permanent increase in the structural primary surplus that is necessary in order to meet the general government inter-temporal budget constraint. – (4) Loans and securities, End of Q4 2018. Data for the euro area countries are from ECB, Statistical Data Warehouse; data for the non-European countries and the United Kingdom are from national sources. – (5) The data refer to Q4 2018. Data for the European countries and for the euro area as a whole are from Eurostat, Statistics Database and ECB, Statistical Data Warehouse; data for the non-European countries are from national sources

Table A2

**Italian banks' non-performing loans and guarantees by counterparty sector (1)**  
(billions of euros; per cent; December 2018)

	Gross exposures	Share of total gross loans (2)	Net exposures	Share of total net loans (2)	Collateral (3)	Personal guarantees (3)	Coverage ratio for unsecured loans
<b>Firms (4)</b>							
Non-performing customer loans	130	18.2	59	9.3	63	25	62.5
<i>of which:</i> manufacturing	24	13.1	10	5.7	7	6	64.0
construction (5)	59	35.4	28	21.2	36	8	60.8
services	39	13.2	17	6.3	15	10	63.9
<i>of which:</i> bad loans	69	9.6	22	3.4	30	17	77.6
<i>of which:</i> manufacturing	14	7.4	4	2.2	4	4	81.1
construction (5)	29	17.4	10	7.3	17	5	76.6
services	22	7.4	7	2.4	7	7	76.2
<b>Consumer households</b>							
Non-performing customer loans	32	6.2	16	3.3	22	1	69.9
<i>of which:</i> bad loans	19	3.8	7	1.5	13	1	79.7
<b>Total (6)</b>							
Non-performing customer loans	171	10.9	79	5.4	88	27	63.1
<i>of which:</i> bad loans	91	5.8	30	2.0	44	18	77.7

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 2018 came to about €9 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 2018)

	Public sector	Banks	Financial corporations	Households and firms	Total	Percentage change in total compared with the end of the previous 6 months	Per cent of total exposures reported to the BIS (2)	Per cent of total exposures (3)
Euro area (excluding Italy)	118.4	72.6	33.1	198.8	422.9	-3.9	2.4	16.7
Other industrialized countries	36.2	22.2	27.7	31.8	117.9	3.1	0.3	4.6
<i>of which:</i> United Kingdom	1.1	12.9	14.9	7.1	36.1	-5.8	0.8	1.4
Emerging and developing countries	42.5	18.1	7.8	87.0	155.4	-5.8	1.8	6.1
Europe	36.5	11.0	6.5	75.2	129.3	-7.1	10.3	5.1
<i>of which:</i> Russia	1.3	2.8	0.7	14.7	19.5	-12.7	21.6	0.8
Turkey	0.6	5.2	3.3	3.0	12.1	-21.3	2.4	0.5
Africa and the Middle East	4.4	2.5	0.6	6.1	13.6	7.9	2.7	0.5
Asia and Pacific	1.0	2.9	0.6	3.5	8.0	14.8	0.1	0.3
Central and South America	0.5	1.7	0.0	2.2	4.5	-27.5	0.6	0.2
<i>of which:</i> Argentina	0.0	0.0	0.0	0.0	0.1	43.0	0.2	0.0
Brazil	0.1	1.5	0.0	0.2	1.8	-47.9	1.2	0.1
Mexico	0.1	0.0	0.0	1.1	1.2	-7.5	0.4	0.0
Offshore centres	0.3	0.5	2.6	4.5	7.8	-11.2	0.3	0.3
<b>Total</b>	<b>197.3</b>	<b>113.4</b>	<b>71.2</b>	<b>322.1</b>	<b>704.1</b>	<b>-3.4</b>	<b>1.0</b>	<b>27.7</b>
<i>Memorandum item</i>								
Energy-exporting emerging and developing countries (4)	2.7	4.9	1.3	18.7	27.7	-8.6	5.6	1.1

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

(1) Exposure to 'ultimate borrowers', gross of bad loans and net of provisions. Does not include BancoPosta and Cassa Depositi e Prestiti SpA. – (2) As a percentage of the total foreign exposures to each country reported to the Bank for International Settlements (BIS) by a large set of international banks. The numerator and denominator refer to 30 September 2018. – (3) Total exposures to residents and non-residents. The numerator and denominator refer to 31 December 2018. – (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
2011	211,680	18,457	5.8	1,009,414	72,377	3.0
2012	322,686	90,128	8.9	1,251,226	213,410	3.8
2013	374,529	45,312	10.9	1,313,179	46,354	4.3
2014 – Q1	381,775	785	10.9	1,355,157	23,132	4.4
Q2	382,673	-3,298	11.1	1,370,453	3,514	4.5
Q3	378,433	-6,142	11.0	1,378,601	-978	4.4
Q4	382,915	4,124	11.0	1,370,727	-18,877	4.4
2015 – Q1	392,323	2,604	11.1	1,380,572	2,842	4.3
Q2	377,980	-2,877	10.9	1,343,751	-11,320	4.3
Q3	373,776	-8,803	10.9	1,337,991	-13,332	4.3
Q4	363,520	-11,930	10.6	1,295,539	-44,386	4.2
2016 – Jan.	367,862	3,713	10.7	1,326,277	29,829	4.2
Feb.	375,224	8,029	10.8	1,341,614	15,603	4.2
Mar.	365,502	-11,184	10.6	1,328,565	-15,163	4.3
Apr.	370,536	7,070	10.8	1,325,852	268	4.2
May	366,582	-4,808	10.7	1,321,028	-8,061	4.2
June	368,616	1,642	10.6	1,325,190	2,101	4.2
July	367,533	-1,525	10.7	1,309,177	-16,994	4.1
Aug.	359,864	-7,930	10.5	1,284,102	-24,869	4.1
Sept.	352,326	-6,892	10.3	1,257,295	-27,856	4.0
Oct.	346,789	-1,311	10.2	1,245,558	-6,792	4.0
Nov.	338,644	-4,105	9.9	1,232,099	-6,871	3.9
Dec.	332,611	-9,216	9.8	1,205,130	-30,429	3.9
2017 – Jan.	335,587	6,594	10.0	1,198,581	1,445	3.8
Feb.	338,783	2,998	10.0	1,201,697	1,926	3.8
Mar.	348,416	10,295	10.1	1,205,394	4,765	3.8
Apr.	350,997	2,508	10.2	1,201,813	-3,963	3.8
May	341,984	-9,756	10.1	1,194,047	-8,988	3.8
June	322,502	-19,648	9.5	1,160,057	-34,171	3.7
July	326,408	3,643	9.6	1,150,184	-10,194	3.7
Ago.	325,142	-1,360	9.7	1,155,051	3,695	3.7
Sept.	318,919	-5,638	9.5	1,144,788	-7,448	3.7
Oct.	309,029	-11,979	9.2	1,120,278	-21,475	3.6
Nov.	295,217	-14,552	8.7	1,108,598	-14,017	3.6
Dec.	283,229	-9,647	8.5	1,074,168	-31,511	3.5
2018 – Jan.	292,772	9,491	8.7	1,094,903	20,484	3.6
Feb.	295,199	2,592	8.9	1,092,267	-1,593	3.6
Mar.	295,874	-1,309	8.8	1,083,121	-13,474	3.5
Apr.	298,106	2,077	8.8	1,073,877	-9,593	3.5
May	306,652	22,569	9.0	1,085,980	30,607	3.5
June	321,228	12,695	9.5	1,093,860	4,493	3.5
July	324,093	3,735	9.7	1,089,110	-3,206	3.5
Aug.	317,237	561	9.5	1,078,913	381	3.5
Sept.	320,240	-326	9.5	1,073,859	-8,894	3.5
Oct.	323,467	5,533	9.7	1,068,229	-3,104	3.4
Nov.	328,023	1,880	9.9	1,073,889	2,552	3.4
Dec.	318,011	-15,479	9.7	1,054,161	-26,644	3.4
2019 – Jan.	329,622	9,386	10.0	1,086,428	29,156	3.4
Feb.	333,754	6,344	10.1	1,104,178	20,925	3.5
Mar.	332,457	-3,486	9.9	1,094,415	-13,169	3.4

Sources: Individual supervisory reports and ECB.

(1) The data on net purchases refer to the whole period; the data on stocks and share of total assets refer to the end of the period. Purchase amounts are shown net of variations in market prices; holdings are shown at market value. All public sector securities are counted, including those issued by local government authorities. –

(2) Cassa Depositi e Prestiti SpA is excluded. – (3) The 'total assets' series does not include bond repurchases.

Table A5

**Italian banks' bonds by holder and maturity (1)**  
(millions of euros; March 2019)

	Maturity					Total
	by 2019	between 2020 and 2021	between 2022 and 2023	between 2024 and 2028	beyond 2028	
Households (2)	14,015	24,454	18,698	18,955	392	76,515
<i>of which: subordinated bonds</i>	1,249	3,289	2,278	4,843	252	11,911
Banks in the issuer's group (3)	4,009	10,109	10,286	12,142	3,332	39,877
<i>of which: subordinated bonds</i>	5	389	93	728	10	1,225
Other Italian banks	1,338	5,951	5,256	5,260	387	18,191
<i>of which: subordinated bonds</i>	40	136	140	607	98	1,021
Other investors	16,798	42,001	50,175	48,024	10,985	167,984
<i>of which: subordinated bonds</i>	1,249	2,785	3,375	10,659	3,235	21,303
<b>Total</b>	<b>36,160</b>	<b>82,515</b>	<b>84,415</b>	<b>84,381</b>	<b>15,096</b>	<b>302,567</b>
<i>of which: subordinated bonds</i>	<b>2,542</b>	<b>6,599</b>	<b>5,886</b>	<b>16,838</b>	<b>3,595</b>	<b>35,460</b>

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
					June	December	March	
<b>Total</b>	<b>283.5</b>	<b>253.7</b>	<b>297.3</b>	<b>321.2</b>	<b>313.4</b>	<b>310.5</b>	<b>303.0</b>	
Government securities	119.8	97.6	88.8	105.8	104.5	78.0	72.8	
Local and regional government securities	2.9	2.6	1.7	1.9	1.1	1.3	1.3	
Uncovered bank bonds	10.4	5.8	5.3	5.4	5.5	5.0	4.1	
Government-guaranteed bank bonds	15.0	0.4	0.3	1.3	0.9	2.5	3.3	
Covered bonds	49.8	46.4	76.3	76.8	71.4	91.3	90.1	
Non-bank bonds	1.0	2.5	3.0	3.0	3.4	4.3	3.7	
Asset-backed securities	40.0	35.5	44.0	49.9	48.6	49.7	47.8	
Other marketable assets	0.4	0.6	0.8	2.8	1.8	1.3	1.1	
Non-negotiable assets (bank loans)	44.3	62.4	77.1	74.3	76.2	77.1	78.8	

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 – Jan.	-4.0	15.3	11.2	-12.4	26.0	13.5
Feb.	-4.1	15.0	10.9	-11.0	25.0	14.1
Mar.	-3.8	15.2	11.4	-10.0	24.6	14.6
Apr.	-3.6	15.7	12.1	-8.9	23.5	14.6
May	-3.7	15.8	12.1	-8.1	23.0	14.9
June	-2.9	15.1	12.2	-7.7	22.5	14.8
July	-2.4	15.3	12.9	-7.1	22.2	15.1
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	-5.1	20.1	15.0
Feb.	-2.4	14.8	12.4	-5.1	20.0	14.9
Mar.	-1.5	13.6	12.1	-2.7	18.3	15.5
Apr.	-0.3	13.0	12.7	-4.7	20.9	16.2
May	-0.4	13.7	13.3	-3.9	19.8	15.8
June	-0.4	14.0	13.6	-3.3	19.1	15.8
July	0.0	13.5	13.5	-3.6	19.1	15.5
Ago.	0.0	13.9	13.9	-3.3	19.2	15.9
Sept.	0.6	13.5	14.1	-2.6	19.1	16.6
Oct.	0.5	13.2	13.7	-1.1	18.4	17.3
Nov.	1.0	13.4	14.4	-0.7	17.7	17.0
Dec.	0.2	13.5	13.7	-0.9	17.2	16.3
2018 – Jan.	0.8	12.1	12.9	-0.5	16.4	15.9
Feb.	0.3	13.2	13.5	-1.0	17.1	16.0
Mar.	0.6	13.5	14.1	-1.8	18.9	17.1
Apr.	0.7	13.5	14.2	-2.9	20.0	17.1
May	-0.2	14.1	13.9	-5.0	21.2	16.2
June	-1.2	14.1	12.9	-5.2	20.6	15.4
July	-1.3	13.9	12.5	-4.1	19.8	15.8
Aug.	-0.9	13.9	13.0	-5.0	20.5	15.5
Sept.	-0.2	13.7	13.5	-5.5	21.4	15.9
Oct.	-0.1	13.4	13.3	-4.7	20.2	15.5
Nov.	0.1	13.5	13.6	-4.5	19.6	15.2
Dec.	0.1	13.6	13.7	-5.5	19.8	14.3
2019 – Jan.	-0.5	13.8	13.3	-6.2	19.9	13.8
Feb.	-0.5	14.6	14.1	-5.5	18.9	13.4
Mar.	-0.6	14.7	14.1	-5.4	19.3	14.0

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 11 significant banks (supervised directly by the ECB) and 13 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.