



BANCA D'ITALIA  
EUROSISTEMA

# Financial Stability Report

November 2017

2 | 2017





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EUROSISTEMA

# **Financial Stability Report**

**Number 2 / 2017**  
**November**

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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

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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Starting with this issue, the *Financial Stability Report* contains a statistical appendix, which includes some tables previously incorporated in the main text.

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## OVERVIEW

*The risks to financial stability stemming from the international economy are decreasing. There are, however, lingering uncertainties about economic policies across regions. The very low volatility observed in the financial markets may be a sign of excessive risk-taking by investors; adverse events could therefore trigger large fluctuations in security prices.*

*Monetary policy recalibration has reduced uncertainty in the euro area. Crises at some Spanish and Italian banks have been resolved, dispelling most of the systemic risks. Sovereign spreads have narrowed considerably.*

*The financial vulnerability of Italian households and firms has diminished and will continue to do so as growth proceeds. It could, however, worsen in the very unfavourable scenario of a marked economic slowdown accompanied by a rise in interest rates.*

*Risks are diminishing in the banking sector. The resolution of crises at some banks during the summer has boosted share prices and reduced the cost of funding. New non-performing loans are decreasing as the economic recovery continues; the stock of outstanding NPLs is also falling sharply. A number of bad loan sales have been completed while others, involving large amounts, are being finalized. Italian banks' capitalization has begun to increase again.*

*Over the next few months the most significant risks for banks remain first and foremost those tied to the economic outlook: a sharp slowdown in growth would have a negative impact on revenues and credit quality. Pressures on*

*profitability, which is still very low, would make it more difficult to turn to the markets to raise capital. While the cost of equity for the main Italian banks has fallen significantly in recent months, it is still higher than the average for the other European banks.*

*The solvency ratio of Italian insurance companies is rising. Italian insurers are less exposed to an increase in interest rates than insurers in the other main European countries, owing to good duration matching of assets and liabilities. However, the large share of government securities in their portfolios still leaves them vulnerable to a hypothetical renewal of tensions in the sovereign bond market.*

*An increase in interest rates, if consistent with the improved economic situation, is fully sustainable by the Italian economy. The debt service capacity of households and firms should remain strong even if borrowing costs rise considerably. The analyses conducted by supervisory authorities indicate that Italian banks and insurance companies have little exposure to the risk of an interest rate rise. The debt-to-GDP ratio can be reduced even if rates were to rise, as this would only gradually affect the average cost of the debt. A high level of public debt is nonetheless a source of vulnerability and the credibility of the commitment to reduce it remains crucial.*

*The improvement in the financial situation of Italian households, firms and banks, along with the consolidation of the public finances, prompted Standard & Poor's to raise Italy's credit rating and that of some of its major banks and insurance companies at the end of October.*





# 1 MACROECONOMIC RISKS AND RISKS BY SECTOR

## 1.1 MACROECONOMIC RISKS

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

The risks to financial stability stemming from the international economy are continuing to decline. Over the last few months, world economic growth expectations for 2017-18 have once again been revised upward (Figure 1.1). There are, however, lingering uncertainties as to the course of economic policies in China and the United States.

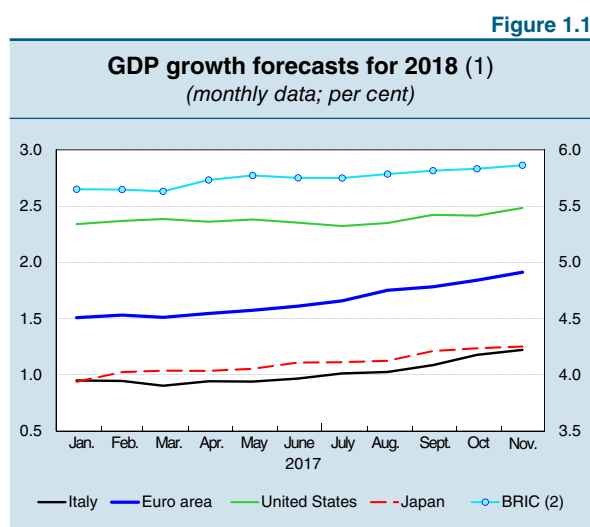
The risk aversion of international investors, measured by the implied volatility of the US stock market indices, is at historically low levels. Operators believe that prices are much more likely to drop sharply than to rise substantially (Figure 1.2.a). The occurrence of adverse events could trigger sudden shifts in investors' expectations, with significant consequences for stock prices and risk premiums.

In the euro area, too, stronger growth and diminished uncertainty about the macroeconomic baseline scenario have helped to reduce risks (see *Economic Bulletin*, 4, 2017). In the banking sector, capital strengthening continues, accompanied by a gradual improvement in profitability conditions. Crises at a number of Spanish and Italian banks were solved at the start of the summer. Since the end of April, the banking sector share indices have risen in tandem with those of non-financial corporations.

Sovereign spreads have narrowed considerably since the spring, in part following the election results in several major countries, which helped to reduce uncertainty about the economic policy outlook (Figures 1.2.b and 1.2.c). The spreads continue, however, to be affected by public finance conditions and outlooks. The decisions of the Governing Council of the European Central Bank announced on 26 October allayed uncertainty about the timing and manner of the recalibration of monetary policy instruments, as demonstrated by the lack of adverse repercussions on financial markets.

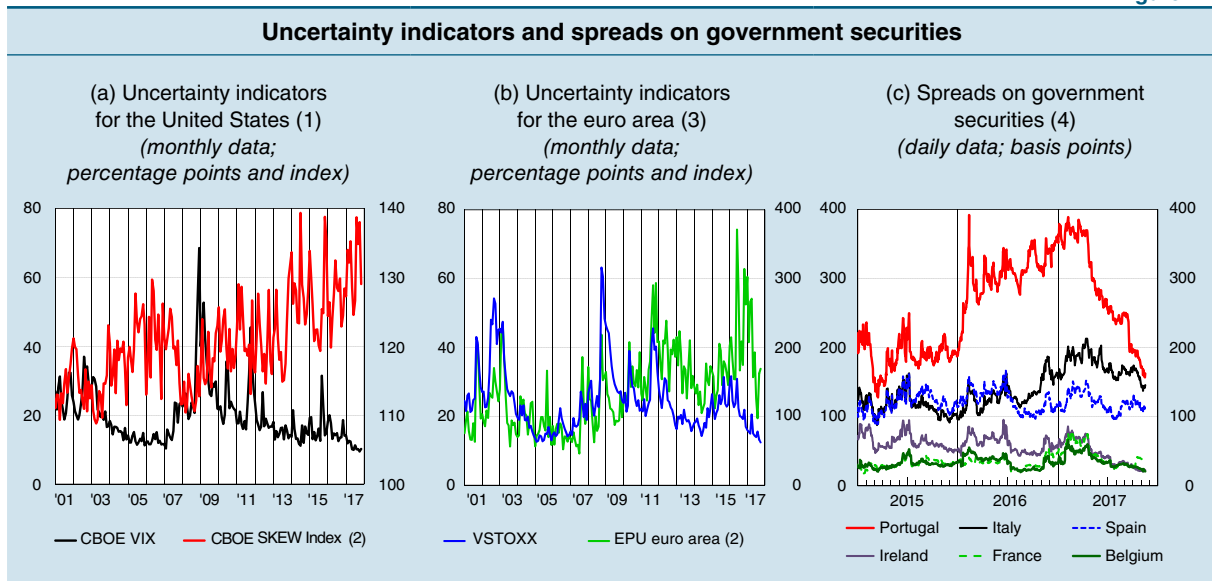
### *Macrofinancial conditions in Italy*

Employment and households' disposable income in Italy are increasing, the financial situation of firms is strengthening and credit quality is improving (see Sections 1.2 and 2.2). At the end of October



Source: Based on Consensus Economics data.  
(1) Forecasts made in the months shown on the horizontal axis. –  
(2) Right-hand scale; average of the forecasts for Brazil, Russia, India and China, weighted on the basis of each country's GDP in 2016 at purchasing power parity.

Figure 1.2

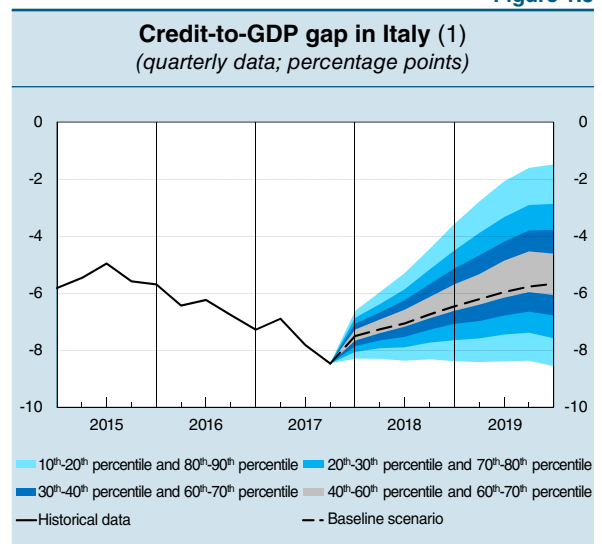


Sources: Based on data from Bloomberg, the Economic Policy Uncertainty (EPU) Index and Thomson Reuters Datastream. (1) The CBOE VIX and CBOE SKEW indices, both calculated by the Chicago Board Options Exchange, refer to the US stock market. The CBOE VIX measures the 30-day volatility implied by the S&P 500 index. The CBOE SKEW Index is an extreme events indicator that measures the probability as perceived by investors of significant price changes; the index's value is above 100 when the probability of negative changes is higher than the probability of positive changes, and below 100 when the opposite is true. – (2) Right-hand scale. – (3) The EPU Index for the euro area (presented in S.R. Baker, N. Bloom and S.J. Davis, 'Measuring economic policy uncertainty', The Quarterly Journal of Economics, 131, (4), 2016, 1593-1636), and the VSTOXX index relating to the volatility implied by the prices of 30-day stock options on the Dow Jones Euro Stoxx 50. – (4) Yield spreads between the ten-year government securities of the countries indicated and the corresponding German Bund.

the rating agency Standard & Poor's revised Italy's credit rating upwards; contributory factors in this decision also included the declining risk in the banking sector and the efforts being made to consolidate the public finances.

Credit growth remains weak, held back by firms' slack demand for loans (see Section 1.2). The credit-to-GDP gap, i.e. the deviation of the ratio of bank lending to GDP from its long-term trend, is still very negative by about 12 percentage points, if calculated using the methodology proposed by the Basel Committee, and by 8 points according to the model developed by the Bank of Italy, which takes account of the specific characteristics of Italy's financial cycle.<sup>1</sup> Our projections, which are consistent with the latest macroeconomic developments and with the forecasts of Consensus Economics, indicate that bank lending to the non-financial private sector will continue to grow moderately this year and in the next two years as well. Although the credit-to-GDP gap is narrowing, it is likely to

Figure 1.3



Sources: Based on Bank of Italy and Istat data. (1) The probability distribution of the projections, shown here by percentile classes, makes it possible to assess the size of the risks that characterize the baseline scenario. The distribution takes account of asymmetric shocks to the main risk factors, using 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.

<sup>1</sup> For the methodology, see P. Alessandri, P. Bologna, R. Fiori and E. Sette, 'A note on the implementation of a countercyclical capital buffer in Italy', Banca d'Italia, Questioni di Economia e Finanza (Occasional Papers), 278, 2015.

remain negative even if credit growth were to expand more rapidly than expected (Figure 1.3). A broad set of indicators point to a very slow recovery of the financial cycle (see Section 3).

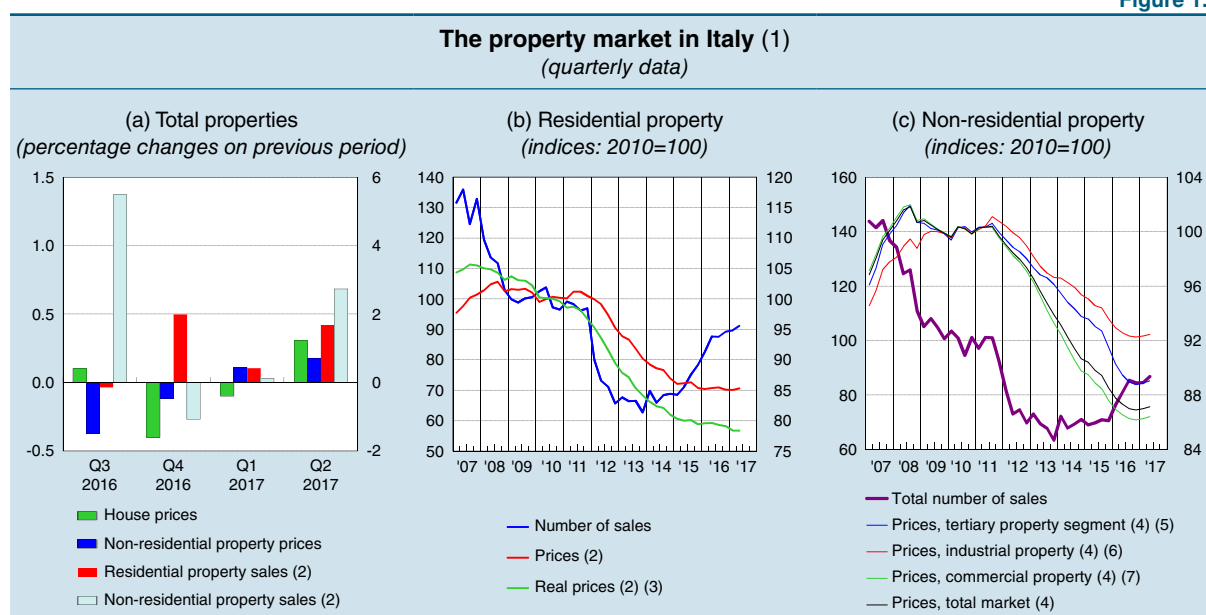
According to government estimates published at the end of September in the Update Note to the 2017 Economic and Financial Document, the debt-to-GDP ratio is likely to fall this year to 131.6 per cent, from 132.0 per cent in 2016; this decline is expected to reach 130.0 per cent in 2018.

Any increases in interest rates would only slowly impact the debt burden, given its current average residual life (see Section 2.1). A high debt-to-GDP ratio is in any case a source of vulnerability, exposing the country to financial market volatility. Therefore, the credibility of the commitment to ensure that the public finances remain in order is crucial.<sup>2</sup>

### Real estate markets

In Europe, the risks for financial stability stemming from the residential real estate sector remain limited, although house prices are rising in almost all countries. New macroprudential measures have been announced by the authorities in Finland and Belgium,<sup>3</sup> two of the eight countries that received reports from the European System Risk Board (ESRB) last November on the vulnerabilities arising from the real estate sector.<sup>4</sup>

Figure 1.4



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

<sup>2</sup> See ‘Sviluppo dell’economia e stabilità finanziaria: il vincolo del debito pubblico’ (Economic progress and financial stability: the constraint of public debt), speech by Ignazio Visco, Governor of the Bank of Italy at the 63<sup>rd</sup> Conference on Government Studies, Varenna, 21 September 2017 (only available in Italian).

<sup>3</sup> In Finland the minimum level for the risk weights on mortgage loans for banks using internal rating methods will be increased from 1 January 2018. The Belgian authorities are also considering new measures.

<sup>4</sup> Austria, Belgium, Denmark, Finland, Luxembourg, the Netherlands, Sweden and the United Kingdom (see ESRB, ‘Vulnerabilities in the EU residential real estate sector’, November 2016).

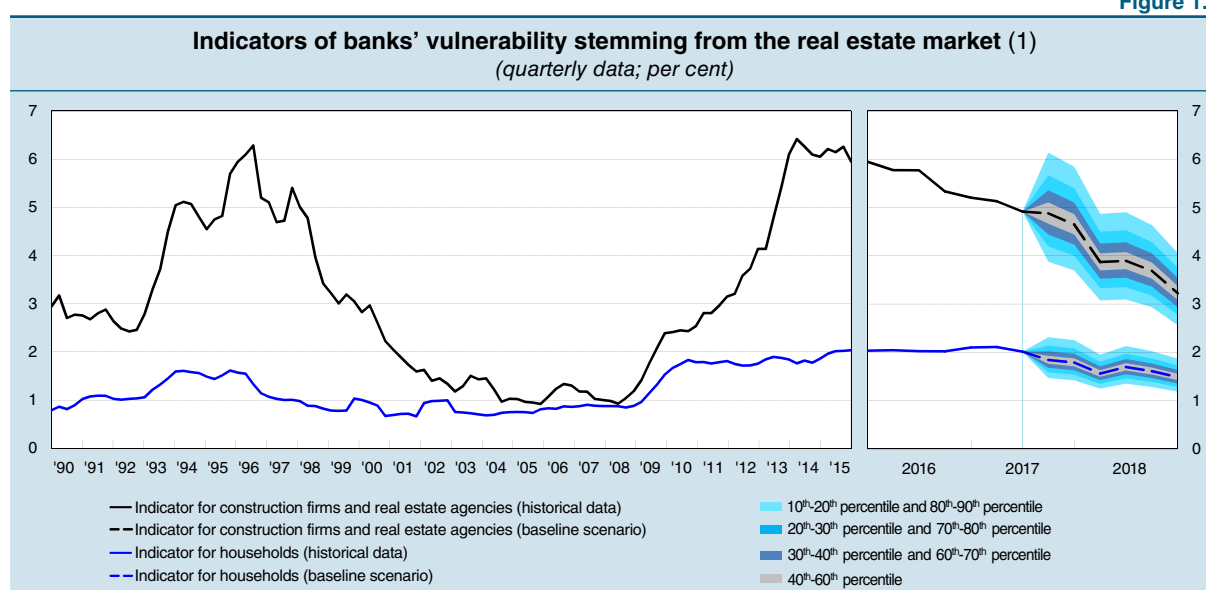
Many countries are showing signs of robust recovery in the non-residential real estate market, which may increase the risks for some sectors of the financial system.

In Italy, after stabilizing in 2016, house prices rose slightly in the second quarter of this year (Figure 1.4.a). According to our estimates, growth will remain modest in the second half of 2017 as well and will gradually strengthen in 2018. The persistently high number of unsold properties continues to curb the growth of property prices; the growth in transactions, ongoing since the beginning of 2014, has slackened (Figure 1.4.b). Sales continue to rise in the non-residential sector as well, accompanied by a modest increase in prices; however, both transactions and prices remain well below pre-crisis levels (Figure 1.4.c).

According to the assessments of estate agents in the quarterly survey carried out by the Bank of Italy, Tecnoborsa and the Revenue Agency, conditions in the residential market will continue to improve gradually. Construction firms interviewed for our autumn survey on the Italian economic outlook expect an increase in investment spending in the second half of the year, including in the non-residential sector.

The improvement in the conditions of the real estate market is helping to reduce the risks for banks. In the first quarter of 2017 the flow of new loans classified as bad declined slightly, both for households and for construction firms and real estate agencies. Based on our forecasts, the vulnerability indicators will continue to decrease over the next few quarters (Figure 1.5).

Figure 1.5



(1) Banks' vulnerability is measured by the ratio of the flow of new bad loans in the last 4 quarters to the average of the banks' capital and reserves in the same period. The probability distribution of the projections, shown in the graph by percentile classes, makes it possible to assess the size of the risks characterizing the median forecast (baseline scenario). For the methodology see: F. Ciocchetta, W. Cornacchia, R. Felici and M. Loberto, 'Assessing financial stability risks arising from the real estate market in Italy', Banca d'Italia, Questioni di Economia e Finanza (Occasional Papers), 323, 2016.

## 1.2 HOUSEHOLDS AND FIRMS

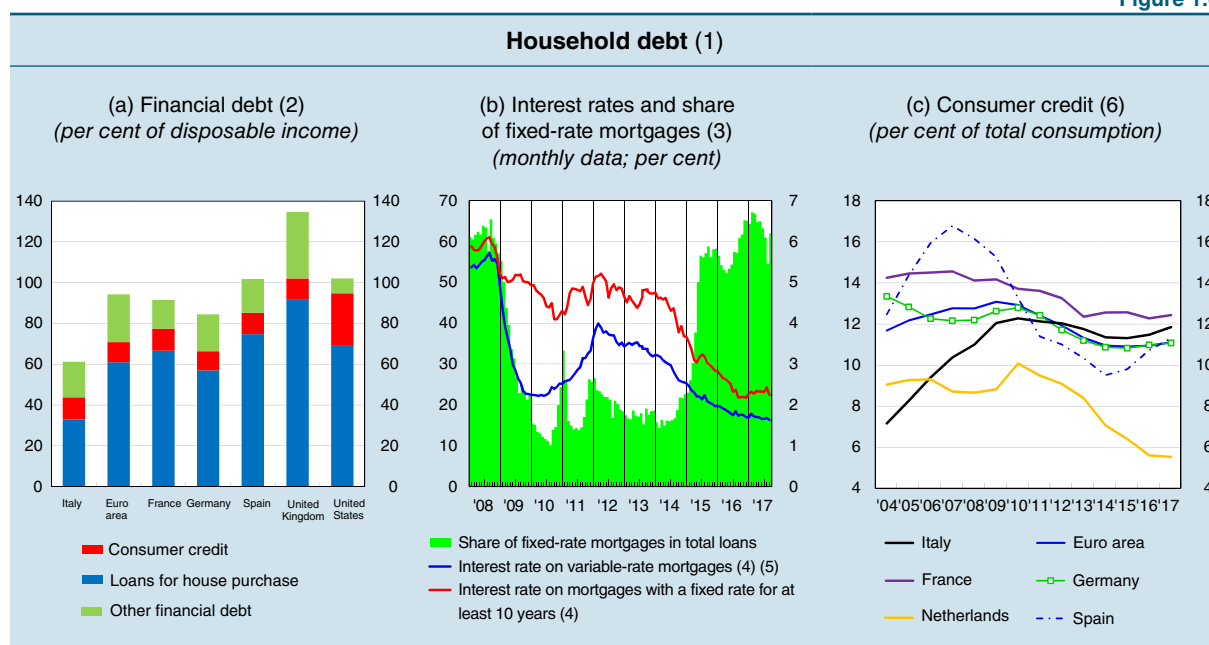
### Households

Low interest rates and the increase in disposable income are strengthening the financial soundness of households. Debt repayment capacity would only be weakened by a sharp drop in income and a sustained rise in interest rates.

Gross financial wealth increased by almost 1 per cent in the first quarter of 2017, above all as a result of the appreciation of assets; in real and per capita terms it remains lower by about 12 per cent compared with the figure for 2007. New investments in financial assets declined and were concentrated in asset management instruments, mainly units of mutual funds, which expanded thanks to the launching of long-term individual savings plans (PIR; see Section 2.3). Significant disinvestments in bank bonds continued.

Household debt is stable in relation to disposable income and very low by international standards (Figure 1.6.a). The slowdown in the growth of house sales (see Section 1.1) was reflected in the demand for mortgages: in the first nine months of 2017 new loans (€29 billion) were unchanged compared with the same period of the previous year (they had increased by 25 per cent in 2016). Interest rates on mortgages remain very low and households are protecting themselves from the risk of future increases by taking out mainly fixed-rate loans, which now account for about two thirds of new loans (Figure 1.6.b) and 35 per cent of stocks (15 per cent in 2007).

Figure 1.6



Sources: ECB, supervisory reports and Eurostat.

(1) Consumer and producer households and non-profit institutions serving households. – (2) Loans and securities; other financial debt mainly includes loans granted to producer households. Data as at end of Q2 2017. – (3) The data refer to new mortgage loans. – (4) Right-hand scale. – (5) Variable rate or rate negotiable before the end of the year. – (6) For 2017 the data refer to Q2.

Consumer credit continues to grow at a high rate (7.4 per cent in September on an annual basis). The increase is mainly in loans for durable goods purchases, which have less of a credit risk than other forms of debt.<sup>5</sup> In relation to the overall annual spending of Italian households, consumer credit remains in line with the figures for other countries and is returning to the levels recorded prior to the recession triggered by the sovereign debt crisis (Figure 1.6.c). The risk linked to possible increases in interest rates is lessened by the reduced average duration of loans (five years) as well as by the high share of fixed-rate loans for more than one year, which account for about 90 per cent of new loans.

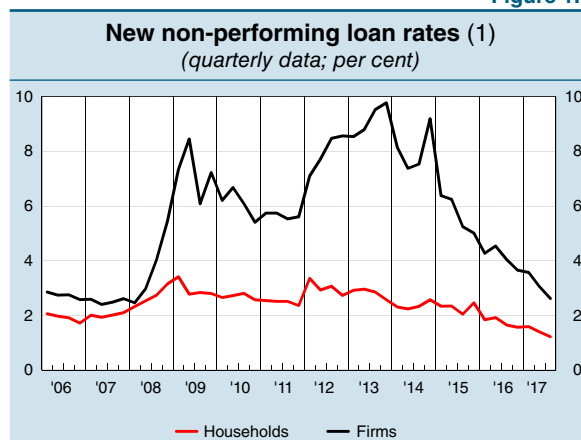
<sup>5</sup> According to the estimates of Crif SpA, the average new non-performing loan rate for earmarked loans granted by banks has been 1.5 per cent over the last five years, against 3.5 per cent for personal loans (*Osservatorio sul credito al dettaglio*, 42, 2017).

Debt repayment capacity is increasing: the new non-performing loan rate on credit granted by banks has fallen to 1.2 per cent, the lowest level in over ten years (Figure 1.7). Data from the private central credit register Crif SpA indicate that this decrease has also occurred in small loans for consumer purposes. The ratio of non-performing loans to total loans, gross of write-downs, fell to 9.2 per cent at the end of the third quarter of 2017, following the sales made by some financial intermediaries (see Section 2.2).

The projections of the Bank of Italy's microsimulation model indicate that at the end of 2018, in a baseline scenario consistent with the latest macroeconomic forecasts, the share of vulnerable households will remain stable at around 2 per cent, while the ratio of their debts to the total will fall to 13.5 per cent (Figure 1.8).<sup>6</sup>

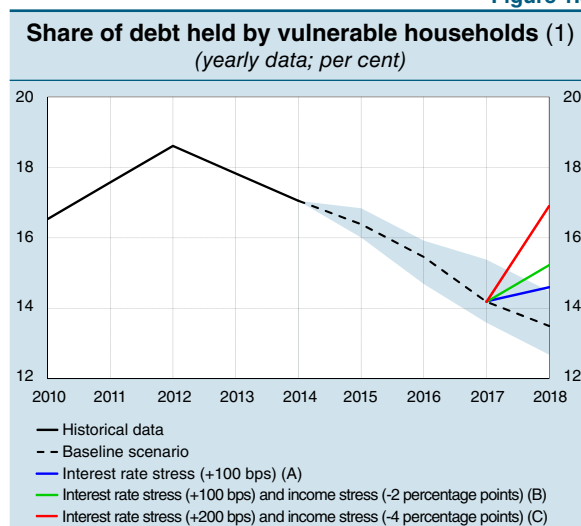
The vulnerability of households would only undergo a marked increase in the event of a steady rise in interest rates and a simultaneous decline in income, though it would still be lower than during the crisis. If the interest rate were higher than 100 points compared with the baseline scenario, the share of debt held by vulnerable households would increase only slightly to around 14.5 per cent. In an adverse scenario, also characterized by lower income growth, the share of vulnerable households' debt would rise to 15.2 per cent, similar to the figure for 2016.<sup>7</sup> If there were particularly unfavourable changes in the interest rate and in income compared with the baseline scenario, then the share of debt at risk would reach about 17 per cent, a figure comparable to that for 2014.<sup>8</sup> The households most exposed to negative shocks are those whose head is self-employed, those paying a mortgage with a variable rate or with a residual duration of more than five years, or with a loan-to-value ratio of more than 50 per cent.

Figure 1.7



Source: Central Credit Register.  
(1) Annualized quarterly flow of adjusted NPLs (past-due by more than 90 days, other NPLs and bad loans) in relation to the stock of loans net of adjusted NPLs at the end of the previous quarter. Data seasonally adjusted where necessary.

Figure 1.8



Source: Based on data from the Survey on Household Income and Wealth.  
(1) Households are considered vulnerable when their debt-service ratio is above 30 per cent and their disposable income is below the median of the distribution. The latest SHIW data available refer to 2014. The shaded area represents the interval included between the 10<sup>th</sup> and the 90<sup>th</sup> percentiles of the probability distribution in the simulations. Compared with the baseline scenario, the assumptions underlying the stress scenarios for 2018 are that: (A) the interest rate will increase by 100 basis points; (B) the interest rate will increase by 100 basis points and the growth rate of nominal income will decrease by 2 percentage points, remaining moderately positive compared with 2017; and (C) the interest rate will increase by 200 basis points and the growth rate of nominal income will decrease by 4 percentage points.

<sup>6</sup> The baseline scenario is characterized by growth in disposable income and virtually unchanged interest rates. For details on the microsimulation model see V. Michelangeli and M. Pietruni, '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>7</sup> The differences between the stress scenario and the baseline scenario (100 points for the interest rate and 2 percentage points for the nominal income growth) are equal to one standard deviation of the annual changes in interest rates and income growth.

<sup>8</sup> The difference of 200 basis points considered in this case corresponds to a greater increase than in the past and the change assumed for nominal income implies a recession.

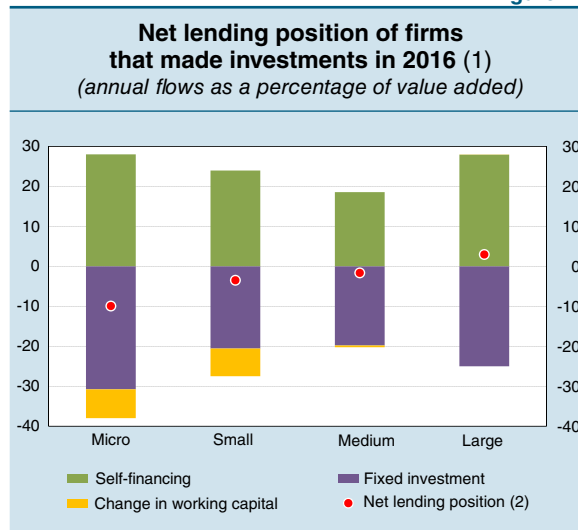
## Firms

Increased profitability in a growing number of productive segments is bolstering firms' ability to repay their debts and to meet their fixed and working capital needs through self-financing. Construction firms and smaller enterprises remain more financially fragile, owing to persistently high levels of indebtedness and the halting recovery of sales.

The growth in gross operating income<sup>9</sup> will enable many firms to post a profit at the end of the financial year. According to the Bank of Italy's autumn business survey, more than three quarters of firms expect to close 2017 with a profit, a high proportion by past standards. Profitability has also been boosted by a decrease in interest expenses, whose ratio to gross operating income fell to very low levels (10.0 per cent).

Demand for external financing is very moderate. For non-financial corporations, income flows

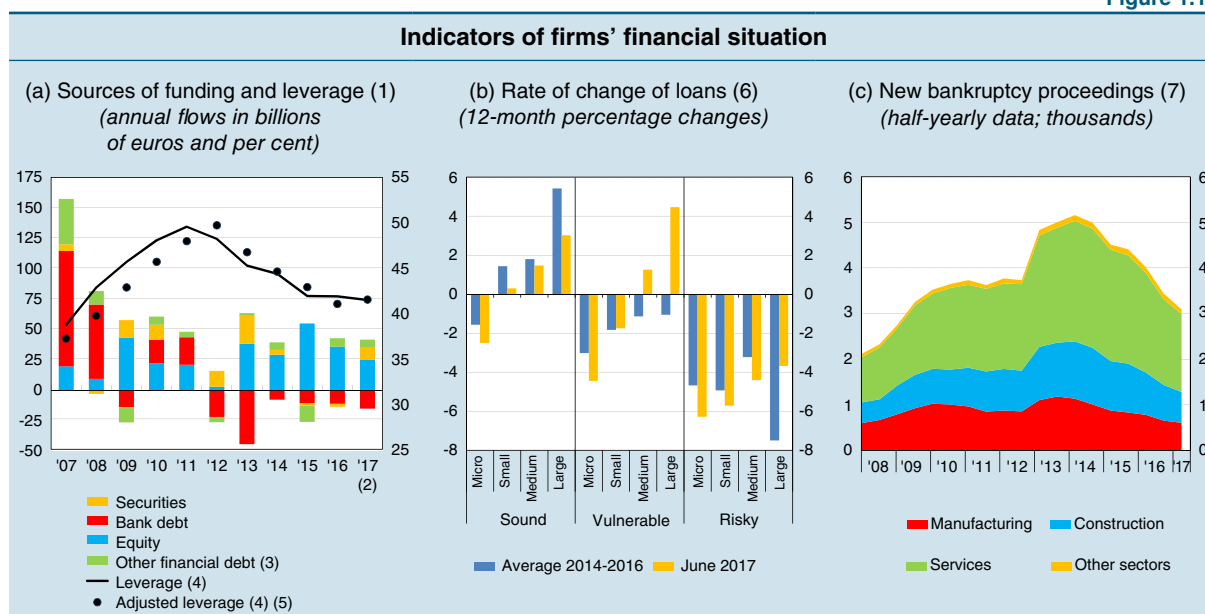
Figure 1.9



Source: Based on Cerved data.

(1) Provisional data taken from the financial reports of a sample of about 500,000 companies that reported fixed investment in 2016. – (2) The net lending position is measured as the difference between self-financing and fixed investment and working capital expenditure.

Figure 1.10



Sources: Bank of Italy and Cerved.

(1) The data refer to the non-financial corporations sector. – (2) The flows refer to the 12 months ending in June 2017. – (3) Mainly includes financing provided by leasing and factoring companies, intra-group loans and securitized loans. – (4) Right-hand scale. Leverage is calculated as the ratio of financial debt to the sum of financial debt and net equity at market prices. – (5) Adjusted leverage is calculated by removing, for every year, the effects of changes in the market value of net equity. A value above (below) the solid line indicates, for a given year, a decrease (increase) in the market value of equity. – (6) Data obtained from a sample of over 400,000 companies; loans include those granted by financial companies and are adjusted for securitizations. Allocation into the risk groups is based on Cerved's CeBi-Score indicator. – (7) The data refer to active companies that submitted their annual financial statements at least once in the three years before the start of the bankruptcy proceedings.

<sup>9</sup> In the twelve months ending in June 2017, gross operating income grew by 3.8 per cent on the previous year.

far exceed investment expenditure, and the net lending position, i.e. the difference between firms' revenues and expenses, remains positive and wide (1.6 per cent of GDP). For small firms, however, the availability of internal funds is more limited. Considering only firms that made investments, micro-firms' external funding needs amount to about 10 per cent of value added, while those of larger firms are practically nil (Figure 1.9). The growth in liquid assets, which rose from 14 to 20 per cent of GDP in ten years, also continues to concern mainly firms with more than 50 employees.

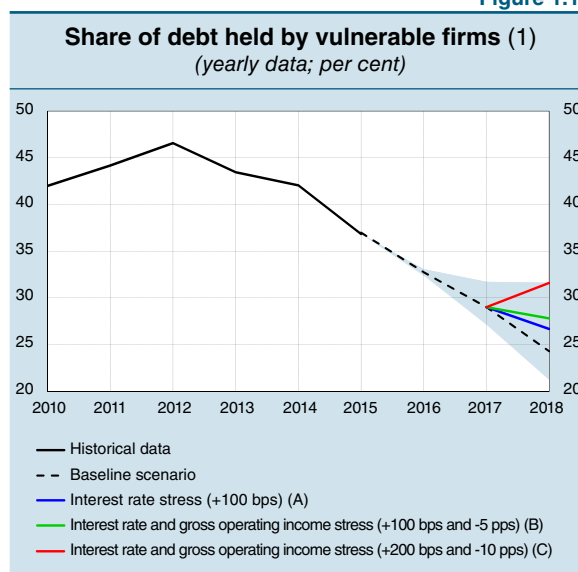
In the past year firms' main source of financing has been equity capital and leverage currently stands around 7 percentage points below the peak of 2011 (Figure 1.10.a). The decrease also affected smaller firms; unlike for larger companies, it was almost exclusively due to the contraction in debt, which occurred mainly as a result of more heavily-indebted firms exiting the market. For construction firms, leverage remains more than 15 percentage points above the average for all firms. Construction is the only sector in which, in recent years, equity has not contributed to a reduction in the degree of indebtedness: failure to regain pre-crisis levels of profitability has led to insufficient profits to be reinvested within firms, whose equity has gradually declined.

Bank debt decreased slightly in the twelve months ending in September but significant differences remain across firms (Figure 1.10.b). The data on a broad sample of companies show that for medium-sized and large enterprises lending picked up again in almost all sectors. Smaller firms, however, are still facing substantial constraints on access to credit, which continues to decline even for those with sound balance sheets.

The improvement in firms' financial situation has translated into a significant increase in their ability to repay loans (see the box 'Italian firms' probability of default'). The number of new bankruptcy proceedings has continued to decline across all economic sectors (Figure 1.10.c) and the new non-performing loan rate has nearly regained pre-crisis levels, reaching an annualized 2.6 per cent in the third quarter (Figure 1.7). The NPL ratio, including write-downs, has decreased to 26.5 per cent, down from the peak of 30.1 per cent recorded in September 2015; the proportion continued to increase only for firms in construction and real-estate services, climbing to about 50 per cent. Cerved data indicate that the frequency of late payments and the length of time overdue is decreasing, including for transactions between firms.<sup>10</sup>

According to projections based on the Bank of Italy's microsimulation model, which are consistent with the latest macroeconomic forecasts, in 2018 the portion of corporate debt held by vulnerable firms will decrease to about

Figure 1.11



Source: Based on Cerved data.

(1) Vulnerable firms are those whose gross operating income is negative or whose ratio of net interest expenses to gross operating income exceeds 50 per cent. The latest available annual financial statements for the whole sample of firms are those for 2015. The shaded area indicates a confidence interval of 95 per cent around the baseline scenario. The assumptions underlying the stress scenarios are that, compared with the baseline scenario, in 2018: (A) the interest rate will be higher by 100 basis points; (B) the interest rate will be higher by 100 basis points and the rate of growth of gross operating income will be lower by 5 percentage points (becoming slightly negative compared with 2017); and (C) the interest rate will be higher by 200 basis points and the rate of growth of gross operating income will be lower by 10 percentage points.

<sup>10</sup> In the last five years, overall payment times decreased by eight days on average, from 79 to 71; of the eight days, around three are ascribable to a reduction in payment times agreed by firms and the remaining five to shorter payment delays (Cerved, *Monitor of Company Payments and Non-Payment Protests*, 28, October 2017).



24 per cent (from an estimated 29 per cent in 2017; Figure 1.11), mainly owing to the growth of profitability.<sup>11</sup>

Firms' ability to sustain debt would deteriorate only in the event of very unfavourable developments in interest rates and earnings. Were interest rates to be 100 basis points higher in 2018 than in the baseline scenario, the share of debt held by vulnerable firms would amount to 27 per cent; in a more adverse scenario in which, in addition to the interest rate increase, the change in gross operating income were 5 percentage points lower than in the baseline scenario, this proportion would rise to 28 per cent.<sup>12</sup> The share of debt at risk would, instead, be substantially higher (32 per cent) if very unfavourable changes in interest rates and earning capacity were to occur compared with the baseline scenario.<sup>13</sup> Medium-sized firms and those active in construction and services are most exposed to the stress scenarios.

### ITALIAN FIRMS' PROBABILITY OF DEFAULT

Since the Italian economy came out of the recession, there has been a significant improvement in the ability of firms to repay the debts they owe to the financial system.

Based on the Bank of Italy's In-house Credit Assessment System (ICAS), which looks at a sample of about 290,000 indebted companies with performing loans, the median one-year-ahead default probability fell from 2.5 per cent in 2013 to 1.0 per cent in July 2017 (see panel (a) of the figure).<sup>1</sup> The marked decrease in the values corresponding to the 75<sup>th</sup> and 90<sup>th</sup> percentiles of the sample distribution indicate that the improvement also extends to weaker firms.

Demographic effects, relating to the removal from the sample of more fragile firms, accounted for 44 per cent of the decrease in the probability of default, while a strengthening of financial conditions for the firms present in the entire reference period accounted for 56 per cent of the decrease.<sup>2</sup> For these firms, net interest expenses fell to 14 per cent of gross operating income (from 23 per cent) and leverage fell to 51 per cent (from 55 per cent).

On average, the probability of default remains higher for micro-firms, firms in the South of Italy and those in construction; construction firms represent 8.4 per cent of bank loans to firms in the sample (see panel (b) of the figure).

<sup>1</sup> The Bank of Italy's ICAS statistical model, which estimates the default probability of indebted firms, assesses loans used as collateral in monetary policy operations. For further information, see the box 'The Bank of Italy's new model for credit risk assessment', *Financial Stability Report*, 6, 2013.

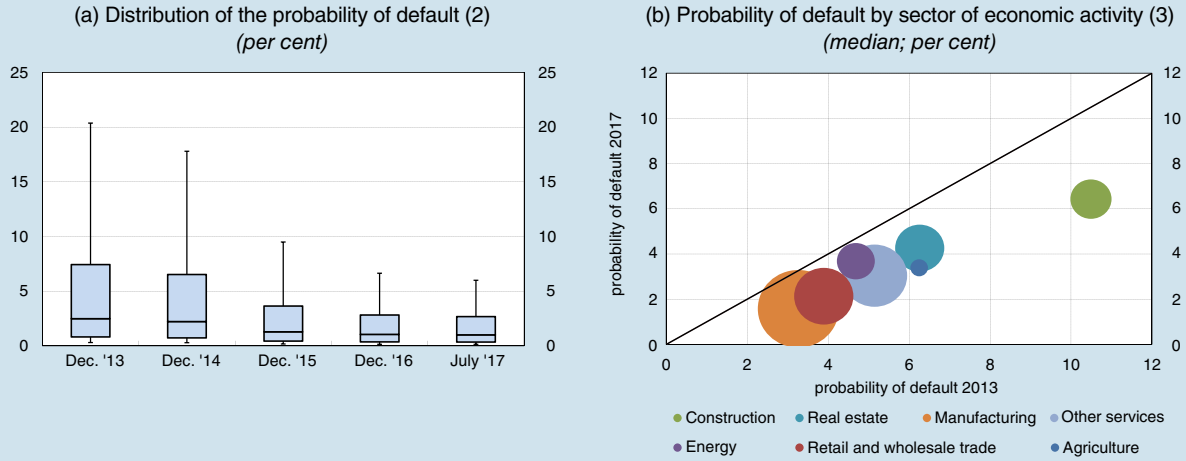
<sup>2</sup> At the beginning of the period, the median value of the default probability of firms that exited the sample because of bankruptcy or other insolvency proceedings, voluntary liquidation or termination of lending relations was 4.8 per cent.

<sup>11</sup> 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>12</sup> An increase of 100 basis points in borrowing costs corresponds to slightly more than one standard deviation of their annual change and exceeds the increases observed in 2007 and 2011; a reduction of 5 percentage points in the rate of growth of gross operating income is equal to one standard deviation of its annual change.

<sup>13</sup> In this case the difference of 10 percentage points compared with the baseline scenario assumed for gross operating income corresponds to a recession.

## Firms' probability of default (1)



Sources: Bank of Italy and Cerved.

(1) The probability of default is estimated over a 12-month horizon on an open sample of non-financial companies resident in Italy that includes, for each reference date, all the firms for which balance sheet and Central Credit Register data are available and which have not yet defaulted (loans more than 90 days past due, unlikely to pay loans and bad loans, that together do not amount to more than 5 per cent of the company's overall bank debt for 3 consecutive months). – (2) The graph shows the 90<sup>th</sup>, 75<sup>th</sup>, 50<sup>th</sup>, 25<sup>th</sup> and 10<sup>th</sup> percentiles of the distribution for each year. – (3) The size of the circle corresponds to the amount of loans issued to firms in each sector.

# 2 FINANCIAL SYSTEM RISKS

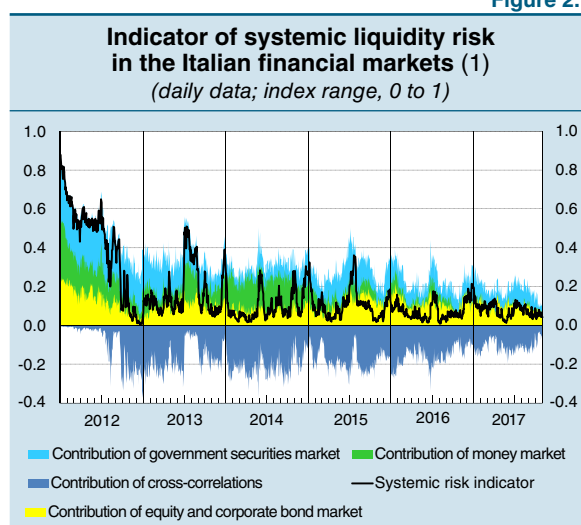
## 2.1 THE MONEY AND FINANCIAL MARKETS

Liquidity conditions in Italian financial markets remain good (Figure 2.1). The decisions taken by the Governing Council of the ECB on 26 October have lowered the risk that uncertainty surrounding monetary policy recalibration will affect volatility in equity and bond markets.

As regards the money market, repo trading volumes remain high in the special repo segment owing to the strong demand for securities sustained by the ECB's purchase programme (Figure 2.2.a). Abundant liquidity has reduced volatility and interest rate levels, which for very short maturities are slightly below the deposit facility rate in Italy as well (Figure 2.2.b).

The average maturity of repo contracts has fallen to one of the lowest levels recorded in recent years, increasing Italian banks' funding risk, especially as the year draws to a close, a time when liquidity

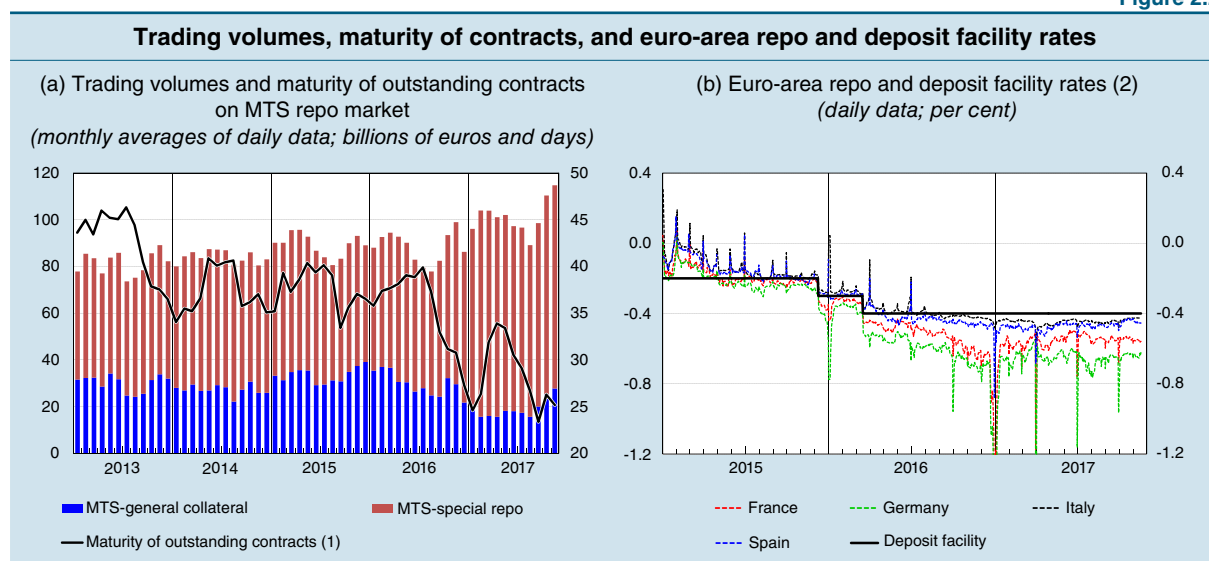
Figure 2.1



Sources: Based on data from Thomson Reuters Datastream, Bloomberg, Moody's KMV, MTS SpA, e-MID SIM SpA, and the Bank of Italy. Data as of 31 October 2017.

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

Figure 2.2



Source: Based on data from MTS SpA, the ECB and RepoFunds Rate.

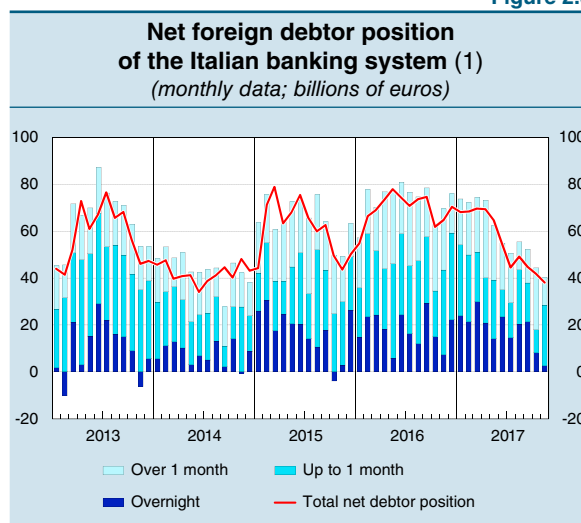
(1) Right-hand scale. – (2) The repo rates for each country are calculated by using as a benchmark the overnight repos of government securities traded on the MTS SpA and ICAP electronic platforms and guaranteed by a central counterparty. For Germany and France the respective values are -4.9 and -5.3 percentage points as at 30 December 2016 and -1.9 and -1.2 percentage points as at 31 March 2017.

typically tends to diminish. Italian banks' net foreign debtor position in this market has, however, narrowed following the latest targeted longer-term refinancing operation (TLTRO II) carried out in March (Figure 2.3).

Unsecured interbank transactions have remained limited. Their reduction in recent years has led policy-makers to take measures – alongside those already adopted by the private sector – to mitigate the risks deriving from the loss of representativeness of key money market benchmark interest rates (see the box 'Euribor, Eonia and financial stability').

Following the increase caused by the latest TLTRO II operation, recourse to Eurosystem refinancing by counterparties operating in Italy held stable at around €255 billion, accounting for about one third of the Eurosystem total (Figure 2.4.a).

Figure 2.3



Source: Based on MTS SpA data.

(1) The net debtor position is calculated based on the cash value of the outstanding contracts. For the total net position, monthly average of daily data; for the breakdown by maturity, end-of-period data.

## EURIBOR, EONIA AND FINANCIAL STABILITY

The Euribor and the Eonia are the money market's benchmark rates and are widely used in the euro area to index instruments and financial contracts. Uncertainty surrounding the integrity of the process for calculating these rates, their low representativeness owing to the reduction in unsecured interbank transactions and the absence of standardized contractual clauses regarding their potential unavailability pose risks to financial stability and the proper functioning of the monetary policy transmission mechanism.

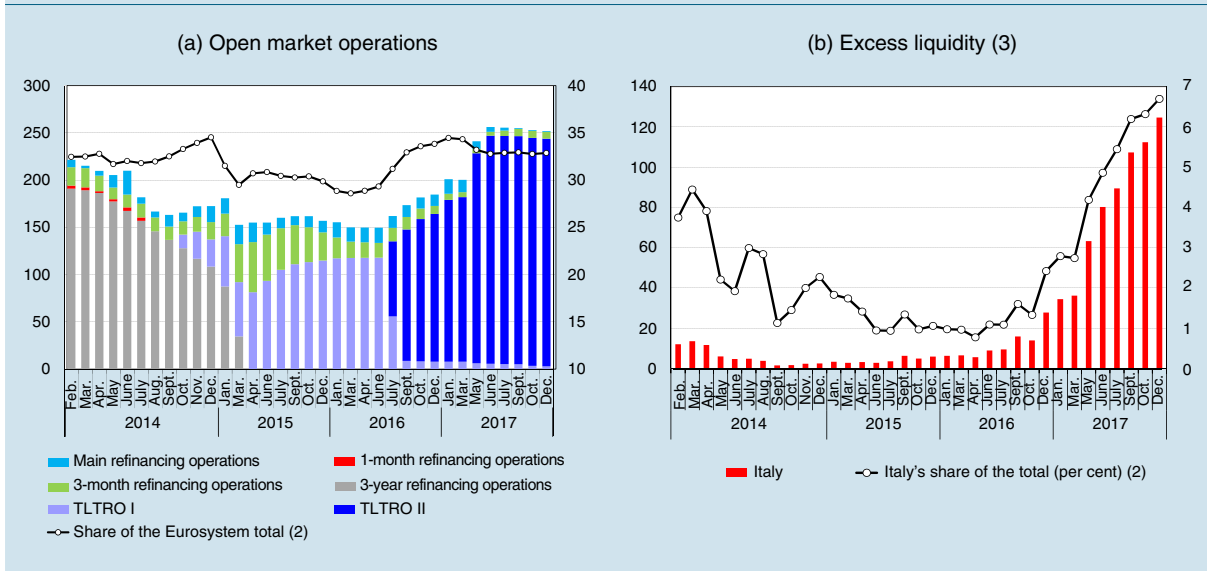
Several measures have been adopted in the European Union. On 1 January 2018 Regulation EU/2016/1011 will come into effect, which subjects administrators of financial benchmarks and contributors of the data necessary for their calculation to a supervisory regime and to governance requirements in line with the principles developed by the International Organization of Securities Commissions. Pursuant to this Regulation, the European Commission has designated as critical benchmarks the Euribor and the Eonia, administered by the European Money Markets Institute (EMMI). The Financial Services and Markets Authority (FSMA), the Belgian authority that oversees the EMMI, has established a supervisory college that may require banks to provide, for a maximum term of two years, the data necessary for the calculation of these benchmarks. In September the ECB announced its intention to develop and publish a euro unsecured overnight interest rate based on data that are already available.<sup>1</sup> Lastly, the FSMA, the ECB, the European Commission and the European Securities and Markets Authority have established a working group that will assist the private sector in identifying a benchmark to serve as an alternative to those currently available.

The Bank of Italy participates, together with Consob, in the supervisory college overseeing the Euribor and the Eonia and contributes to the work done by the Eurosystem. The participation of Italy's financial sector in European private sector initiatives remains crucial considering the widespread use of benchmarks in contracts involving households and firms.

<sup>1</sup> The new interest rate, whose principal elements will be shared with market operators over the course of 2018, will be published by 2020 and will be added to the current benchmarks developed by the private sector.

Figure 2.4

**Recourse to Eurosystem refinancing by counterparties operating in Italy and excess liquidity in Italy (1)**  
(billions of euros and per cent)



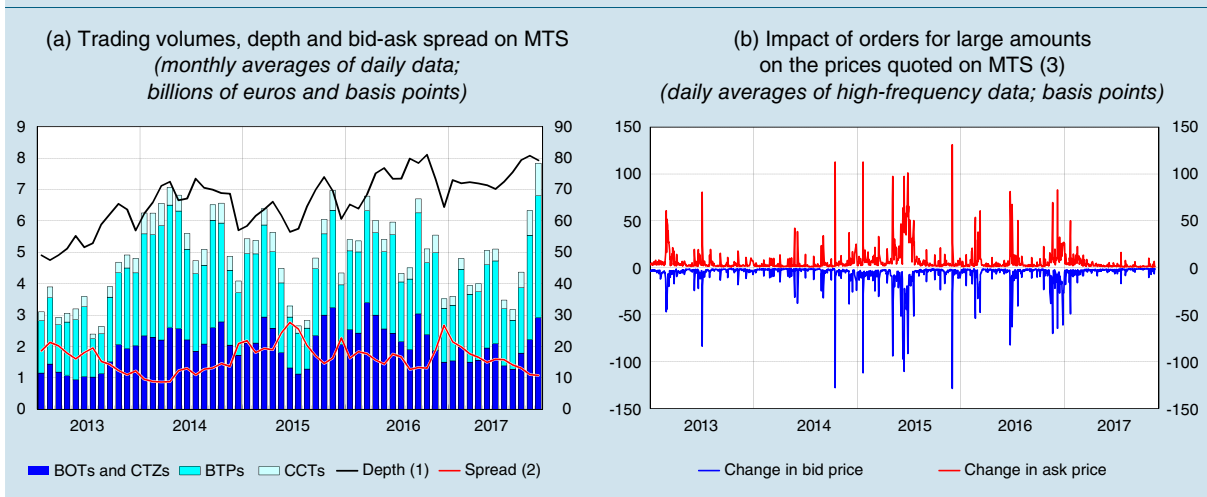
Sources: Based on ECB and Bank of Italy data.

(1) The horizontal axis gives the month in which each maintenance period ends. The exception is December 2017, for which the data cover up to 15 November 2017. In January 2015 the length of each maintenance period was extended from 4 to 6 weeks. – (2) Right-hand scale. – (3) Excess liquidity is calculated as the sum of banks' average reserve balances, net of the reserve requirement, plus average recourse to the deposit facility and of average recourse to liquidity-absorbing operations intended to sterilize the liquidity injected into the system following the launch of the Securities Markets Programme (active until June 2014).

Italian banks' excess liquidity, which was very limited up to the first half of 2016, has been rising gradually since then; in November it exceeded €120 billion, or 6.7 per cent of the Eurosystem total (Figure 2.4.b). It also increased at small banks.

Figure 2.5

**Liquidity indicators on Italian government securities**



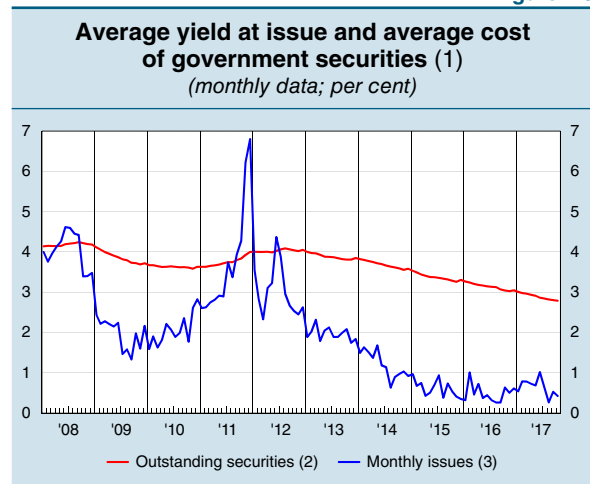
Source: Based on MTS SpA data.

(1) Depth is calculated as the average of the quantities of bid and ask orders for BTPs. – (2) Right-hand scale. The spread is measured as the simple average of the bid-ask spreads observed during the entire trading day for the BTPs listed on MTS. – (3) The analysis refers to the 10-year benchmark BTP and is based on data recorded at 5-minute intervals. The blue and red lines show the estimated impact on bid and ask prices of entering a hypothetical €50 million buy or sell order in the MTS book.

Liquidity conditions in the secondary market in Italian government securities remain good, both in terms of the bid and ask quotes and the bid-ask spread (Figure 2.5.a). The potential impact of large orders on prices would be limited (Figure 2.5.b). In recent months the uncertainty surrounding future monetary policy decisions has helped to keep trading volumes below the average levels of 2016.

The average cost of public debt reached a very low level (2.8 per cent; Figure 2.6), benefiting in the last six months from the reduction in yields at issue of instruments with maturities of less than ten years.<sup>1</sup> The average residual maturity of government securities began to lengthen again, reaching 6.7 years. The term structure of Italy's public debt attenuates the impact of fluctuations in market interest rates on the average cost of debt: a permanent increase of 1 percentage point in yields at issue would translate into an increase in the cost of debt of about 0.1 percentage points after one year, 0.2 points after two years, and 0.4 points after three years.

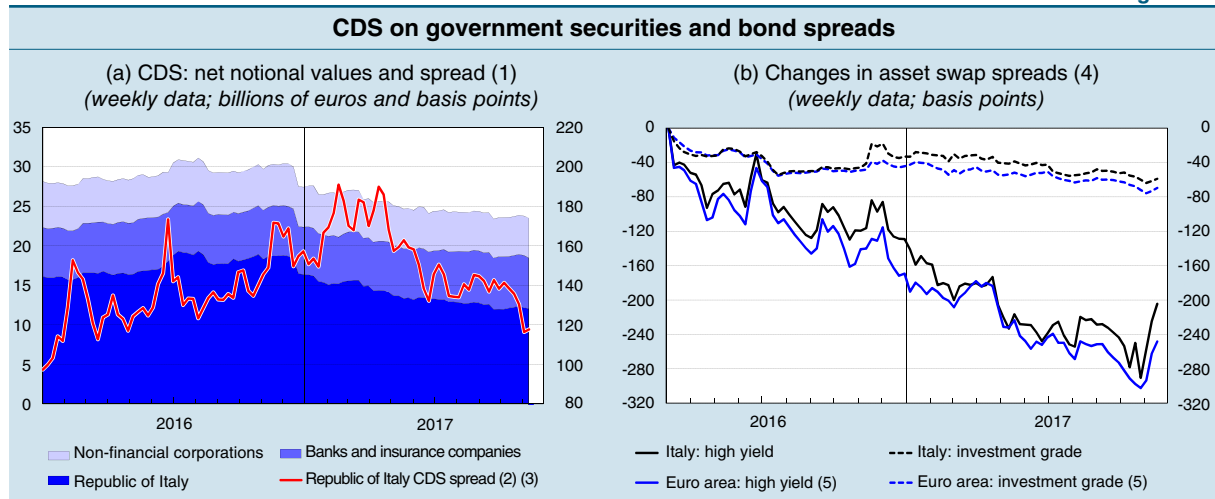
Figure 2.6



Sources: Based on Ministry of Economy and Finance and Bank of Italy data. Data at 31 October 2017.  
 (1) Domestic placements of non-indexed government securities. – (2) Weighted average of the yields at issue of government securities outstanding at end of month. – (3) Weighted average of the yields of government securities placed during the month, by settlement date.

CDS spreads on Italian government securities began to decrease in April, coinciding with a widespread reduction in uncertainty in the euro area following the outcome of the French presidential election; this trend became stronger after Standard & Poor's recently raised Italy's credit rating and following the latest monetary policy decisions. The demand for protection on Italian government securities declined; net notional values fell also owing to the euro's appreciation against the US dollar, the customary currency

Figure 2.7



Sources: Based on data from Bloomberg, Depository Trust & Clearing Corporation (DTCC) and Bank of America Merrill Lynch.  
 (1) Net notional values are measured according to the DTCC definition. – (2) Right-hand scale. – (3) Five-year maturity. ISDA 2014 Credit Derivatives Definitions; net notional values in dollars. – (4) Asset swap spreads weighted by the market capitalizations of individual securities. There is no perfect correspondence between the securities included in the Bank of America Merrill Lynch indices, used in the graph, and their eligibility for the Eurosystem's asset purchase programmes. Change since 10 March 2016, the day the Governing Council of the ECB announced the launch of the Corporate Sector Purchase Programme (CSPP). – (5) The Bank of America Merrill Lynch indices for the euro area have been recalculated to exclude Italy.

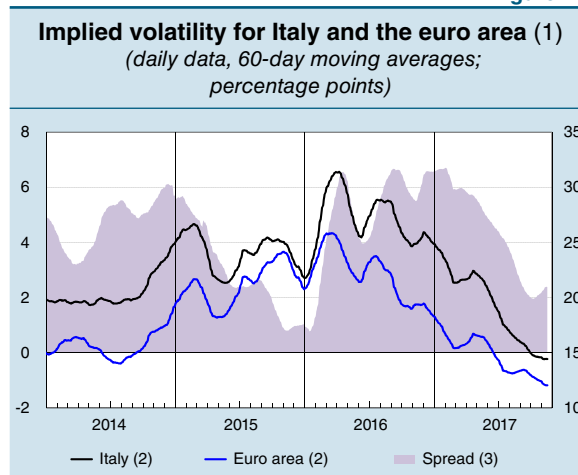
<sup>1</sup> The figure excludes issues on international markets.

of denomination for such contracts. The demand for protection on banks and insurance companies, instead, rose slightly (Figure 2.7.a).

The asset swap spread of Italian private sector bonds has continued to narrow, also as an effect of the Eurosystem Corporate Sector Purchase Programme (CSPP; Figure 2.7.b). As in the rest of the euro area, spreads widened in the first weeks of November, especially for high-yield securities, owing to the rebalancing of portfolios towards less risky investments.

The expected volatility implied by the prices of options on the Italian stock index decreased, in line with global trends (see Section 1.1). The easing of tensions in the banking sector helped to narrow the spread between the implied volatility of the Italian market and that of the euro area (Figure 2.8).

Figure 2.8



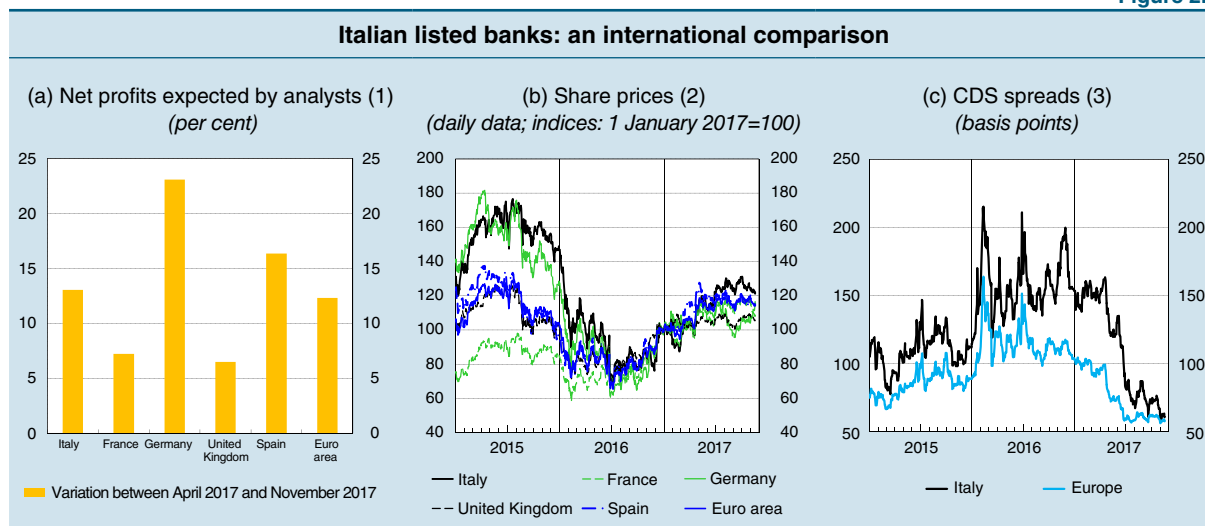
Source: Based on Bloomberg data.  
 (1) Volatility implied by the prices of 2-month options on the Italian FTSE MIB and, for the euro area, the Euro Stoxx 50. – (2) Right-hand scale. – (3) Spread between the volatility implied by the prices of 2-month options on the Italian and euro-area stock market indices.

## 2.2 BANKS

### Market indicators

In Europe, the strengthening recovery and the reduction in systemic risks have increased investors' profitability expectations, which in turn have driven up the share prices of the main banks (Figures 2.9.a and 2.9.b). Since April, the share prices of Italian banks have increased more than those of the banks in other countries and the gap has widened following the resolution of the problems at Banca Monte

Figure 2.9



Sources: Based on data from Bloomberg and Thomson Reuters Datastream.  
 (1) Estimates on net profits for the next 12 months expressed in euros. The data relate to banks listed in FTSE Italy Banks, FTSE Germany Banks, FTSE France Banks, FTSE Spain Banks, FTSE UK Banks, and Euro Stoxx Banks. – (2) Data relating to the indices referenced in note (1) are in euros. – (3) Simple average of 5-year CDS spreads. The data relate to the following sample of banks: for Italy, UniCredit, Intesa Sanpaolo; for France, BNP Paribas, Société Générale, Crédit Agricole; for Germany, Deutsche Bank, Commerzbank; for the United Kingdom, Barclays, Royal Bank of Scotland, HSBC, Lloyds; for Spain, Santander, Banco Bilbao Vizcaya Argentaria.

dei Paschi di Siena, Banca Popolare di Vicenza and Veneto Banca during the summer (see the box 'Effects on the markets of the recent resolution of the problems of some Italian banks'). The uncertainties relating to capital increases by Banca Carige and Credito Valtellinese, which recently caused a sharp drop in their share prices, did not significantly affect the share prices of other banks. The CDS spreads of the main Italian banks have fallen, on average, to the levels of the other European banks (Figure 2.9.c).

## EFFECTS ON THE MARKETS OF THE RECENT RESOLUTION OF THE PROBLEMS OF SOME ITALIAN BANKS

To assess the impact on the Italian markets of the measures adopted to deal with the problems at Banca Monte dei Paschi di Siena, Banca Popolare di Vicenza and Veneto Banca, an event study was carried out to examine the dynamics of returns and implied volatility for Italian shares at the time of the key events. The study took account of the cumulative abnormal returns and the cumulative abnormal volatility of the Italian share index (FTSE MIB) compared with the European one (Euro Stoxx), estimated by using the capital asset pricing model (CAPM) in the two weeks prior to and the two weeks following each of the events (observation period).<sup>1</sup>

The following events were studied: Event 1 - the approval of the Decree Law regulating the types of public intervention to support liquidity and strengthen the capital of banks and banking groups and Banca Monte dei Paschi di Siena's application for precautionary recapitalization by the State (23 December 2016); Event 2 - Banca Popolare di Vicenza and Veneto Banca's notification of their decision to apply for precautionary recapitalization (13 March 2017); Event 3 - approval of the Decree Law for the compulsory administrative liquidation of Banca Popolare di Vicenza and of Veneto Banca (25 June 2017); Event 4 - the European Commission's approval of the precautionary recapitalization of Banca Monte dei Paschi di Siena (4 July 2017).<sup>2</sup>

The approval of the decree governing State intervention to support the capital and liquidity of banks in difficulty (Event 1) did not have any significant effects on the market, presumably due to widespread expectations of public support measures well in advance of their actual adoption. The Veneto banks' notification of their decision to apply for precautionary recapitalization (Event 2) was preceded by statistically significant positive abnormal returns of 6 per cent (see panel (a) of the figure), meaning that this event was expected by the markets. The two events that produced the highest positive cumulative abnormal returns were the compulsory administrative liquidation of Banca Popolare di Vicenza and of Veneto Banca (12 per cent, Event 3) and the European Commission's approval of the precautionary recapitalization of Banca Monte dei Paschi di Siena (14 per cent, Event 4). In the first case the cumulative abnormal returns were significant after the event, while in the second case only before the event itself.

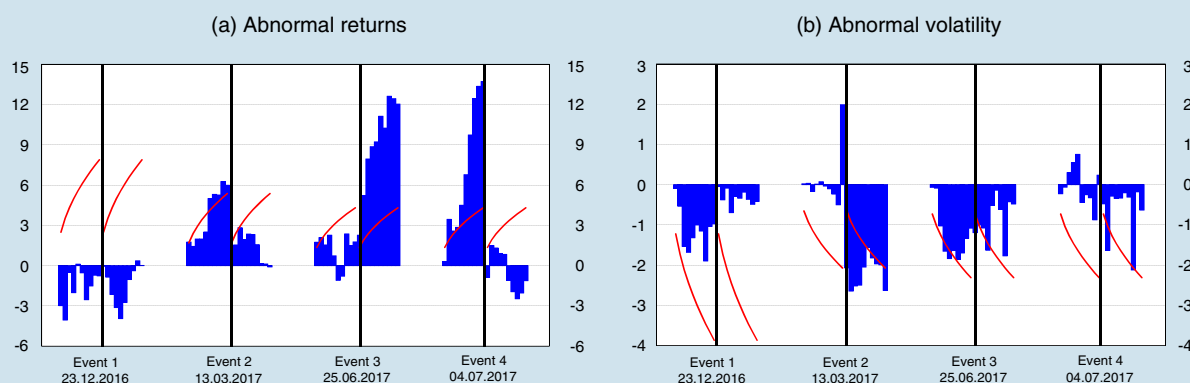
By contrast, the implied volatility of the index declined significantly only after the Veneto banks' request for precautionary recapitalization (Event 2; see panel (b) of the figure); in the months following this event the implied volatility, which had already decreased to a fifth of that reached at the onset of the global financial crisis, continued to decrease gradually, though this was not statistically significant.

<sup>1</sup> The analysis was carried out using the general FTSE MIB Index of the Italian Stock Exchange rather than the banking one, given that data on implied volatility are only available for the former. The relationship between the Italian and European indices was estimated using the CAPM in the three months prior to the observation period corresponding to each individual event. The values of the cumulative abnormal returns for each period were calculated by adding together the daily values obtained as the difference between the actual returns of the Italian index and that forecast by the CAPM. A similar methodology was used to calculate the cumulative abnormal volatility. Statistical significance tests with a confidence interval of 90 per cent were used to check whether the cumulative abnormal returns and the cumulative abnormal volatility of the Italian index were significantly different from zero during the observation period.

<sup>2</sup> See 'Banks and Institutional Investors' in Chapter 2, *Annual Report for 2016, 2017* and on the Bank of Italy's website: 'Plan to resolve the crisis of Banca Popolare di Vicenza and Veneto Banca', 26 June 2017 and 'La ricapitalizzazione precauzionale di MPS: domande e risposte', 31 August 2017.



## Abnormal returns and abnormal volatility of the Italian share index (1) (percentage points)



Source: Based on Bloomberg data.

(1) The blue bars show the cumulative abnormal returns and abnormal daily volatility of the Italian share index that were recorded in the two weeks prior to and the two weeks following the events in question. The red lines show the results of the statistical test used to check the significance of the abnormal returns and the abnormal volatility and set a confidence interval of 90 per cent. The black lines show the date of the events: Event 1 on 23 December 2016 (urgent measures to protect savings); Event 2 on 13 March 2017 (the Veneto banks decide to apply for precautionary recapitalization); Event 3 on 25 June 2017 (liquidation of the Veneto banks); and Event 4 on 4 July 2017 (the European Commission's approval of the precautionary recapitalization of Banca Monte dei Paschi di Siena).

Overall the results of the analysis show that the resolution of the Veneto banks' crises and the conclusion of the application process for the precautionary recapitalization of Banca Monte dei Paschi di Siena helped to increase investors' confidence in Italian banks.

The improvement in the sector's outlook was also reflected in the fall in the average cost of equity, which dropped by more than 3 percentage points for Italian banks. However, it remains higher than that of the other main European banks (see the box 'The cost of equity for Europe's banks').

### THE COST OF EQUITY FOR EUROPE'S BANKS

The cost of equity (COE) is the minimum required return on capital invested in a company. The difference between this indicator and the actual return on equity (ROE) is a measure of the adequacy of the company's profitability from the point of view of its shareholders.

An analysis of the 31 listed European banks<sup>1</sup> that took part in the European Banking Authority's stress test conducted in 2016 shows that since last April the average cost of equity<sup>2</sup> has fallen and market analysts' profitability expectations have been revised up.

<sup>1</sup> Banks still listed at 30 April 2017: for Italy, UniCredit spa, Intesa Sanpaolo spa, UBI Banca spa; for Austria, Erste Group Bank AG, Raiffeisen-Landesbanken-Holding GmbH; for Belgium, KBC Group NV; for Germany, Deutsche Bank AG, Commerzbank AG; for Denmark, Danske Bank, Jyske Bank; for Spain, Banco Santander SA, Banco Bilbao Vizcaya Argentaria SA, Banco de Sabadell SA, Critería Caixa S.A.U.; for France, BNP Paribas, Société Générale SA, Groupe Crédit Agricole; for the United Kingdom, Lloyds Banking Group Plc, HSBC Holdings Plc, The Royal Bank of Scotland Group Plc, Barclays Plc; for Hungary, OTP Bank Nyrt.; for Ireland, Allied Irish Banks Plc; for the Netherlands, ABN AMRO Groep NV, ING Groep NV; for Norway, DNB Bank Group; for Poland, Powszechna Kasa Oszczędności Bank Polski SA; for Sweden, Swedbank - group, Nordea Bank - group, Skandinaviska Enskilda Banken - group, Svenska Handelsbanken - group.

<sup>2</sup> Market capitalization weighted average.

The study used the capital asset pricing model (CAPM), which estimates the cost of equity based on the risk-free rate ( $Rf$ ) and the non-diversifiable risk premium demanded by shareholders; the non-diversifiable risk premium, in turn, depends on the risk premium associated with the market portfolio (equity risk premium, ERP) and on a measure of the systematic risk of each company's shares, following the formula:

$$COE_{it} = Rf_{mt} + \beta_{it} \cdot ERP_{mt}$$

where  $i$  indicates the bank,  $t$  the observation date,  $m$  the reference market for the listed shares and the beta coefficient ( $\beta$ ) measures the shares' specific risk in terms of the expected variation in returns relative to market movements. Shares with a beta coefficient higher than 1 display greater riskiness than those of the market portfolio and therefore investors expect a higher rate of return, other things being equal.

It is estimated that since April the average cost of equity has declined by 1.4 percentage points, to 8.6 per cent.<sup>3</sup> About 30 per cent of the reduction is attributable to the decline in specific equity risk (beta coefficients) and the rest is due to the decline in the risk premium on equity linked to the national reference market (ERP; see the table). The reduction was more marked for the 3 Italian banks included in the 31 under consideration (3.4 percentage points); their COE, averaging around 11 per cent, was nevertheless still higher than that of the other banks (see panel (a) of the figure), because of both higher beta coefficients and the higher risk premium for the Italian equity market.

In the same period, the 3-year-forward ROE expected by market analysts for the banks in the sample returned to values close to 9 per cent (see panel (b) of the figure); the average for Italian banks is two points lower, at around 7 per cent. The share of European banks with expected ROE below the cost of equity is around 50 per cent, down from 62 per cent in April (see panel (c) in the figure). Expected profitability lower than the cost of bank equity make any capital increases more difficult.

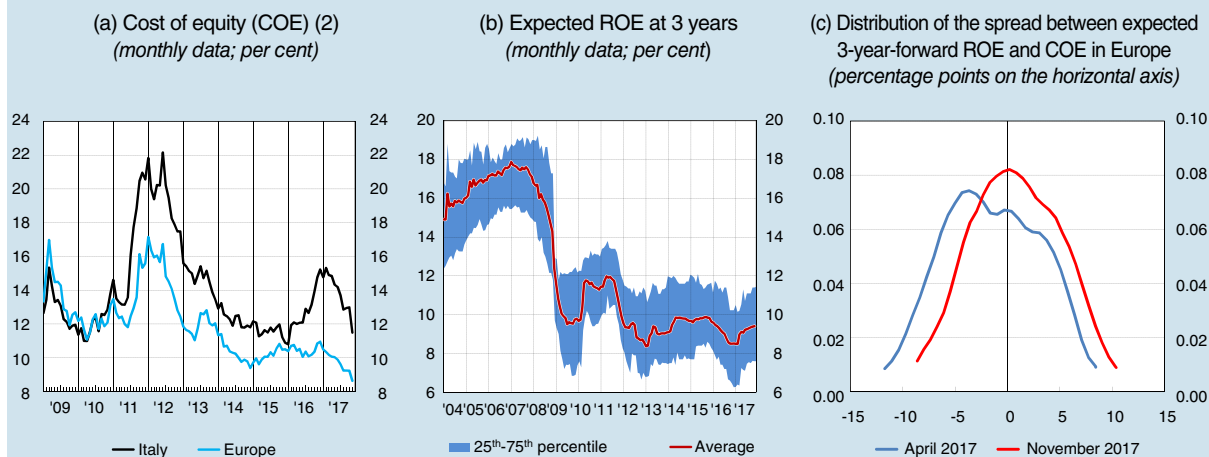
**Cost of equity:  
level and determinants**  
(numbers and percentage points)

	Europe	Italy
<b>Number of banks</b>	<b>31</b>	<b>3</b>
<b>COE November 2017 (1)</b>	<b>8.6</b>	<b>11.5</b>
Risk-free rate	2.3	2.3
Beta	1.2	1.7
ERP	5.2	5.4
<b>Change since April 2017 (2)</b>	<b>-1.4</b>	<b>-3.4</b>
Contributory factors:		
Risk-free rate	0.0	0.0
Beta	-0.4	-0.8
ERP	-1.0	-2.6

Source: Based on data from Thomson Reuters Datastream.  
(1) Obtained based on the following CAPM formula: COE = risk-free rate + beta \* ERP. Market capitalization weighted averages. – (2) The change in COE is given by the sum of the contribution of each component of the CAPM between April and November 2017, keeping the other two factors unchanged at the April level.

<sup>3</sup> The yield on ten-year US government bonds was used as the risk-free rate for each country; equity risk premiums were calculated as in A. Damodaran, in *Equity risk premiums (ERP): Determinants, Estimation and Implications - The 2017 edition*, March 2017; the equity risk premium of each country was calculated by adding the spread on sovereign credit default swaps (CDS) between the reference country and the United States to the estimated risk premium for the US equity market. The beta coefficient is estimated based on daily returns over a one-year rolling window and calculated in relation to the national reference market index of each bank; similar results can be obtained by taking the daily returns over a window of two years or weekly returns on windows of two or five years (for the methodology, see BIS, *87<sup>th</sup> Annual Report*, Basel, 2017).

### Cost of equity and profitability expectations (1)



Source: Based on data from Thomson Reuters Datastream.

(1) The 31 European banks still listed at 30 April 2017 that participated in the EBA's 2016 stress test. – (2) Market capitalization weighted average.

### Asset Risks

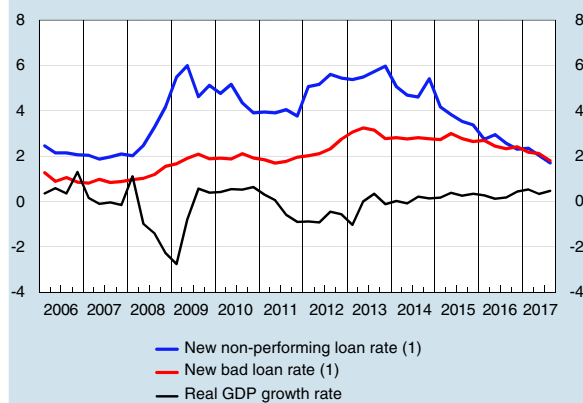
The Italian banking system's asset quality continues to improve. The economic recovery is fuelling the improvement in lending conditions to households and to firms considered creditworthy and is reducing debtors' default risk (see Section 1.2). In the third quarter of 2017, the flow of new non-performing loans in proportion to total loans fell to 1.7 per cent, lower than the average recorded in 2006-07 (1.2 per cent for households and 2.6 per cent for firms; Figure 2.10).

In the first half of 2017, net non-performing loans decreased by €22 billion, to €151 billion (Table 2.1), to which the liquidation of Banca Popolare di Vicenza and Veneto Banca contributed approximately €9 billion. Gross of provisions, NPLs fell by €25 billion, to €324 billion. In the same period, the coverage ratio (measured as the ratio of loan loss provisions to total non-performing loans) grew from 50.6 to 53.5 per cent, higher than the average level reported by the main EU banks;<sup>2</sup> a fifth of the increase was on account of the write-downs by Banca Monte dei Paschi di Siena.

<sup>2</sup> EBA, *Risk Dashboard. Data as of Q2 2017*, October 2017.

Figure 2.10

### Credit quality indicators and GDP growth (quarterly data; per cent)



Sources: Central Credit Register and Istat.

(1) Annualized quarterly flows of adjusted NPLs and adjusted bad loans in relation to the stock of loans at the end of the previous quarter net of adjusted NPLs and adjusted bad loans; data seasonally adjusted where necessary.

Table 2.1

**Credit quality: amounts and shares of non-performing loans and coverage ratios (1)**  
(billions of euros and per cent; June 2017)

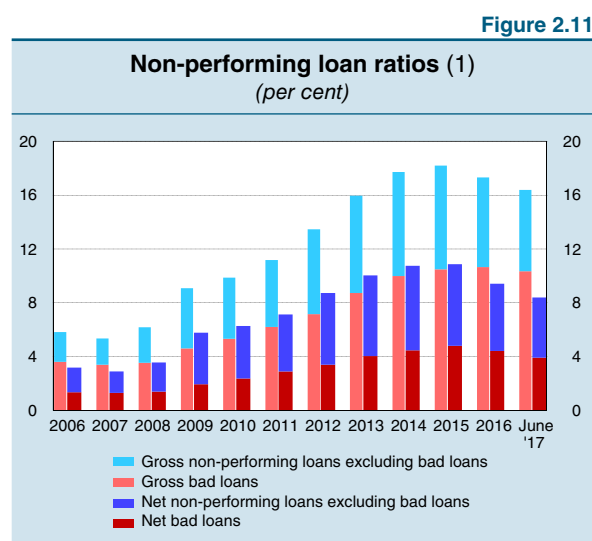
	Significant banks (2)					Less significant banks (2)					Total (2)				
	Gross exposures	Net exposures	Gross percentage share	Net percentage share	Coverage ratio	Gross exposures	Net exposures	Gross percentage share	Net percentage share	Coverage ratio	Gross exposures	Net exposures	Gross percentage share	Net percentage share	Coverage ratio
<b>Customer loans (3)</b>	<b>1,478</b>	<b>1,335</b>	<b>100.0</b>	<b>100.0</b>	<b>9.6</b>	<b>313</b>	<b>282</b>	<b>100.0</b>	<b>100.0</b>	<b>9.8</b>	<b>1,979</b>	<b>1,796</b>	<b>100.0</b>	<b>100.0</b>	<b>9.3</b>
<i>Performing</i>	1,234	1,226	83.5	91.8	0.6	252	250	80.5	88.6	0.7	1,655	1,645	83.6	91.6	0.6
<i>Non-performing (4)</i>	244	109	16.5	8.2	55.3	61	32	19.5	11.4	47.5	324	151	16.4	8.4	53.5
Bad loans	156	51	10.5	3.8	67.2	37	14	11.8	5.1	60.8	205	70	10.4	3.9	65.6
Unlikely to pay	85	55	5.7	4.1	35.0	21	15	6.8	5.3	29.4	112	74	5.7	4.1	33.7
Past-due	4	3	0.3	0.2	25.0	3	3	0.9	0.9	9.5	7	6	0.4	0.3	19.2

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

(1) The coverage ratio is the amount of loan loss provisions in relation to the corresponding gross exposure. In the case of performing loans, it is calculated as the ratio of generic provisions to performing loans. Rounding may cause discrepancies in the totals. The percentage composition is calculated on the basis of the amounts expressed in millions of euros. Provisional data. – (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 9 per cent of total gross customer loans. Excludes branches of foreign banks. – (3) Includes 'non-current assets and groups of assets held for sale'. – (4) The category is harmonized at European level. The subcategories represent an Italian concept and are not harmonized.

In the first half of the year, the Texas ratio<sup>3</sup> of Italian banks fell by nearly 15 percentage points to 93 per cent (90 per cent if July's capital injection into Banca Monte dei Paschi di Siena is included); the liquidation of Banca Popolare di Vicenza and Veneto Banca contributed 2 percentage points. The gap between the main European banks narrowed by a quarter, though it remained wide at 43 percentage points, which also takes into account Banca Monte dei Paschi's capital injection.

At the end of June 2017, the ratio of NPLs to total customer loans net of provisions was 8.4 per cent (16.4 per cent gross of provisions), about 1 percentage point lower than in December 2016 (Figure 2.11); net and gross of provisions, bad loans accounted for 3.9 and 10.4 per cent of loans respectively. Of the bad loans that are currently outstanding a majority are collateralized and have a lower average age compared with the bad loans extinguished in 2006-16 through standard procedures or sales. Thus, the recovery rates observed in the past few years are unlikely to over-predict the rates going forward, provided that the composition of recovery methods remains the same.<sup>4</sup>



Source: Supervisory reports, on a consolidated basis for banking groups and individually for banks not belonging to a group.

(1) Customer loans. Includes banking groups and subsidiaries of foreign banks; excludes branches of foreign banks. Amounts are calculated net and gross of adjustments. The data for June 2017 are provisional.

<sup>3</sup> The Texas ratio is the ratio of gross NPLs to the sum of common equity tier 1 capital and loan loss provisions.

<sup>4</sup> The recovery rates for positions closed following their sale are on average lower than those closed following standard procedures. The gap depends on various factors, among which the information asymmetries that are typical of the NPL market and the high return expectations of potential purchasers that are reflected in the discount rates applied to expected cash flows and therefore on the offer prices. See F.M. Conti, I. Guida, A. Rendina and G. Santini, 'Bad loan recovery rates in 2016', Banca d'Italia, *Notes on Financial Stability and Supervision*, 11, 2017.

Banks are removing bad loans from their books at a gradually increasing pace. Between 2013 and 2016 the share of bad loans outstanding at the start of the year that were paid off within that same year, after having reached a low of 6 per cent in 2013, rose to 9 per cent in 2016. This improvement reflected the growth of market sales and the increase in positions that were closed following standard procedures, which were both attributable to the adoption of active bad loan management policies by banks. In the first 9 months of 2017, banks sold or wrote off from their balance sheets about €26 billion of bad loans, gross of provisions, compared with €4 billion in the same period of 2016.<sup>5</sup> The total amount of bad loans sold was 8 per cent of the banking system's gross non-performing exposures at the end of 2016.

Preliminary evidence on the effects of the 2015 reform of the foreclosure rules indicates that recovery times have shortened.<sup>6</sup> After the reform, the number of foreclosures whose initial phase (from the registration of the foreclosure to the start of the sale process) was completed within one year nearly doubled (to 33 per cent). The Marciano Pact,<sup>7</sup> introduced last year, was instead incorporated in only a very few loan agreements with firms (see Chapter 12, 'Business activity regulation and the institutional environment', *Annual Report for 2016, 2017*). More efficient management of non-performing loans could come from the reforms expected from the delegated law on bankruptcy procedures approved in October (compulsory liquidation, composition with creditors, restructuring agreements), the procedures for managing over-indebted consumers and small firms and the system of liens and collateral. The legislative decrees implementing these reforms should be issued within 12 months.

The ECB recently launched a public consultation on a draft addendum to its guidance to banks on non-performing loans, published in March of this year. According to the proposed addendum, full coverage for the unsecured portion of new non-performing loans should occur within two years, and for the secured portion within 7 years. The new rules would apply to new NPLs starting on 1 January 2018 (see the box 'The recent proposals of the ECB and the European Commission on NPL provisioning').

#### THE RECENT PROPOSALS OF THE ECB AND THE EUROPEAN COMMISSION ON NPL PROVISIONING

On 4 October the ECB published, for consultation by 8 December this year, an addendum to the guidance to significant banks on the management of NPLs issued in March. The guidance, to which the Bank of Italy actively contributed, requires banks to develop tools for the management of NPLs and to devise plans to reduce their volume. The addendum, instead, sets out the ECB's quantitative expectations concerning the minimum levels of prudential provisioning for exposures to be classified as non-performing as of 1 January 2018 (calendar provisioning). The ECB expects banks to provision in full new unsecured non-performing exposures within two years of their being classified as such and secured non-performing exposures within seven years.

In steady state, calendar provisioning will reduce uncertainty about the valuation of NPLs and hence about the soundness of the banks concerned. Provisioning a higher percentage of NPLs could help to boost investor confidence and have a positive impact on the cost of capital and of funding. It would also lower the risk that a build-up of NPLs may undermine banks' stability.

Following the publication of the consultation document, the shares of Italian and other euro-area banks with a high proportion of NPLs slumped (see *Economic Bulletin*, 4, 2017). In the case of Italy, this may

<sup>5</sup> The stock of bad loans sold in the first 9 months of 2017 includes UniCredit's sale of €17.7 billion worth of exposures. This position was removed from its balance sheet on 30 September 2017.

<sup>6</sup> The data was gathered by the *Tavolo di Studio sulle Esecuzioni Italiane* (TSEI or T6) from the Minister of Justice's online services portal.

<sup>7</sup> The Marciano Pact is a contractual clause that gives creditors the right, in case of default, to sell the property pledged as collateral without recourse to the court system.

have been partly due to the fact that credit recovery proceedings are not only much slower than the average for the euro area but also extend well beyond the deadline for the full provisioning of NPLs recommended by the ECB in the guidance.

Where NPL coverage rates are in line with effective recovery rates, as our studies show to be the case on average for Italian banks,<sup>1</sup> a strictly calibrated calendar provisioning initially reduces the value of loans and own funds, which then increase in subsequent years.

Applying calendar provisioning also to exposures that might become performing again (e.g. ‘unlikely to pay’ positions) might encourage banks to prefer a liquidating approach towards debtor firms that are solvent but in temporary difficulty so as to release the collateral as soon as possible and minimize short-term costs. This could jeopardize the effectiveness of some of the recently approved reforms to Italian law governing arrangements with creditors and restructuring agreements – and similar measures initiated at EU level – that are designed to help firms in temporary difficulty remain going concerns (see the box ‘The recent measures on credit recovery procedures and tax deductibility of loan losses and write-downs’, *Financial Stability Report*, 2, 2015). The ECB’s proposal, which is being examined from a legal point view at the European level, anticipates possible European legislation.

Following the recommendations of the Council of the European Union, on 10 November 2017 the Commission published a document, for consultation by 30 November, calling for comments on a proposal for draft legislation, to be passed as soon as possible, introducing statutory prudential backstops (Pillar 1) against insufficient loan loss coverage.<sup>2</sup> The Commission’s proposal would only apply to the flow of non-performing exposures resulting from new loans (and therefore exclude those granted previously). As to the secured part, two alternative approaches are submitted for consultation. The first (the deduction approach) requires NPLs to be fully provisioned in 6-8 years; the second (the haircut approach) requires a variable prudential collateral haircut according to the type of asset. Consultation on the Commission’s document should provide some useful indications for properly calibrating the measure, so as to take account of specific features of national legislation.

The Commission’s proposal is part of a broader range of potential measures designed to tackle the problem of NPLs.<sup>3</sup> The objective of the provisioning proposals described above is to prevent large volumes of NPLs building up in the future. Other measures include a blueprint for the creation of national asset management companies, as well as initiatives to foster a secondary market in NPLs. If these measures are introduced without delay, it will be possible to reduce the stock of NPLs rapidly without excessive cost to the banks. Moreover, the stock in Italy, net of provisions, has already been reduced by 23 per cent (from €197 billion to €151 billion) between the end of 2015 and June this year at the insistence of the national and European authorities.

<sup>1</sup> F.M. Conti et. al., ‘Bad loan recovery rates in 2016’, Banca d’Italia, *Notes on Financial Stability and Supervision*, 11, 2017.

<sup>2</sup> European Commission, ‘Consultation document: statutory prudential backstops addressing insufficient provisioning for newly originated loans turn non-performing’, 10 November 2017.

<sup>3</sup> Council of the European Union, ‘Council conclusions on action plan to tackle non-performing loans in Europe’, press release, 11 July 2017, and European Commission, ‘Communication to the European Parliament, the Council, the European Central Bank, the European Economic and Social Committee and the Committee of the Region on completing the Banking Union’, 11 October 2017.

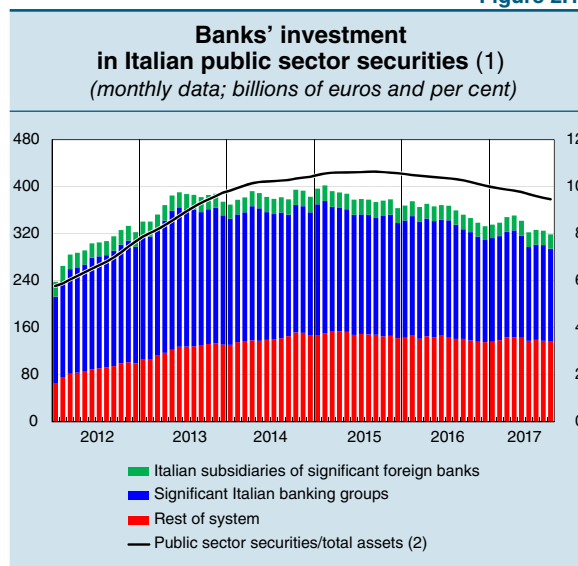
The Bank of Italy has submitted to public consultation a document containing NPL management guidelines for less-significant banks.<sup>8</sup> Banks with high levels of NPLs will be asked to submit a plan

<sup>8</sup> Banca d’Italia, *Linee guida per le banche less significant italiane in materia di gestione di crediti deteriorati*, September 2017.

that provides for a substantial reduction in their NPL levels over the course of several years without requiring immediate and indiscriminate sales.

Italian banks' exposure to Italian public sector securities is decreasing. In the twelve months ending in September the volume of Italian public sector securities in bank portfolios fell by €33 billion, to €319 billion (Figure 2.12); the drop is almost wholly attributable to Italian significant banking groups (€29 billion). Their share of total assets fell from 9.8 to 9.1 per cent for the banking system as a whole and from 7.4 to 6.4 per cent for the significant banking groups (3.6 per cent and 2.3 per cent, respectively, in 2007). For the less significant banks, which structurally hold a higher share of public sector securities, the reduction amounted to 1 percentage point, falling to 22.1 per cent (8.0 per cent in 2007). In September, investments by Italian banks in euro-area public sector securities, prevalently those of France and Spain, amounted to €43 billion, an increase of €5 billion over the previous twelve-month period.

Figure 2.12



Source: Supervisory reports.

(1) All public sector securities, including those issued by local authorities. Excludes Cassa Depositi e Prestiti SpA. – (2) Right-hand scale. Twelve-month moving average ending in the month indicated.

### Refinancing risk and liquidity risk

The still weak credit growth and a reduction of public sector securities in bank portfolios have reduced banks' financing needs, which were largely satisfied by increased retail funding. Deposits continued to expand strongly, offsetting the contraction in the volume of bonds held by households (Table 2.2).

Table 2.2

<b>Italian banks' funding (1)</b> (billions of euros and percentage change)					
	September 2017	Share of total	12-month percentage changes (2)		
			September 2016	March 2017	September 2017
Deposits of residents in Italy (3)	1,484	62.3	1.9	2.8	6.4
of which: households	1,034	43.4	4.2	3.1	3.4
firms	268	11.3	5.3	9.7	14.7
Deposits of non-residents	298	12.5	-5.1	-7.0	1.2
Bonds	299	12.5	-17.5	-15.7	-14.0
of which: held by households	118	5.0	-22.6	-24.2	-30.2
Net liabilities to central counterparties (4)	48	2.0	25.9	2.4	-32.5
Liabilities vis-à-vis the Eurosystem (5)	252	10.6	13.6	70.9	35.4
<b>Total funding</b>	<b>2,380</b>	<b>100.0</b>	<b>-1.1</b>	<b>2.8</b>	<b>3.8</b>

Sources: Individual supervisory reports; includes Cassa Depositi e Prestiti SpA.

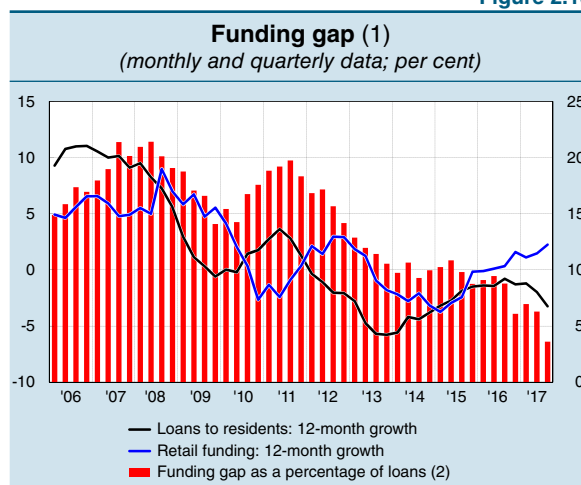
(1) Excludes liabilities to other banks resident in Italy. The data for September 2017 are provisional. – (2) Adjusted for reclassifications, value adjustments and exchange rate variations. – (3) Excludes transactions with central counterparties. – (4). Repurchase agreements only, representing foreign funding via central counterparties. – (5) Includes transactions with the Eurosystem for monetary policy operations, see Statistics, 'Banks and Money: National Data', Tables 3.3a and 3.3b.

The funding gap, i.e. the share of loans not covered by retail funding, is below 4 per cent; it was almost 9 per cent in September 2016 (Figure 2.13). For the five leading banking groups, the indicator was 5.9 per cent while for the smallest banks it was negative by 26.4 percentage points as their retail funding is well above the level of loans granted.

In the last six months, Italian financial intermediaries have placed large quantities of uncovered securities on the international markets, bringing wholesale net issues into positive territory for the first time since the start of 2015 (Figure 2.14.a); the gap between the yields on uncovered and covered bonds has narrowed significantly (Figure 2.14.b). In relation to the benchmark for new issues from Italian banks, the yield spreads were between 87 and 178 basis points, on average 80 points higher than for similar securities placed by the other leading European banks. Recourse to wholesale funding on the international markets is still limited to the largest banking groups: in the last three years, seven groups accounted for 90 per cent of issues, the total value of which (€53 billion) was equal to 2.6 per cent of these groups' average total assets in the period under consideration.

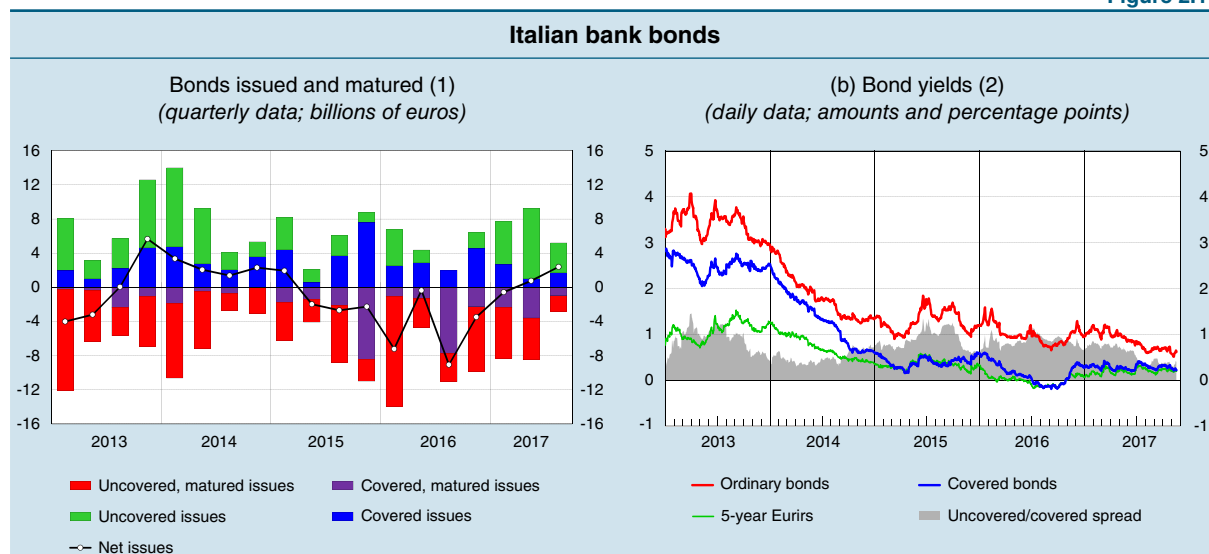
At the end of September, total bond issues stood at €299 billion (7.7 per cent of liabilities), of which €118 billion placed with households; subordinated instruments amounted to €41 billion, of which €18 billion held by households.<sup>9</sup> Bonds for a value of €83 billion will mature by the end 2018, and a further

Figure 2.13



Source: Supervisory reports; does not include Cassa Depositi e Prestiti SpA and branches of foreign banks in Italy. (1) Loans to residents net of retail funding (residents' deposits plus bonds placed with households). Percentage changes of loans and funds have not been adjusted to smooth the accounting effect of reclassifications and of variations other than those originating from transactions. – (2) Right-hand scale.

Figure 2.14



Sources: Based on Dealogic and Bloomberg data.

(1) Italian banks' issues larger than €200 million on international markets. Does not include issues retained on issuers' balance sheets, those earmarked for the retail market, or those of Italian banks' foreign subsidiaries. Includes bonds deriving from securitization operations. – (2) Yields at maturity of Italian banks' bonds with residual maturity of 5 years.

<sup>9</sup> Not including bonds held by banks belonging to the issuer group or by other resident banks.



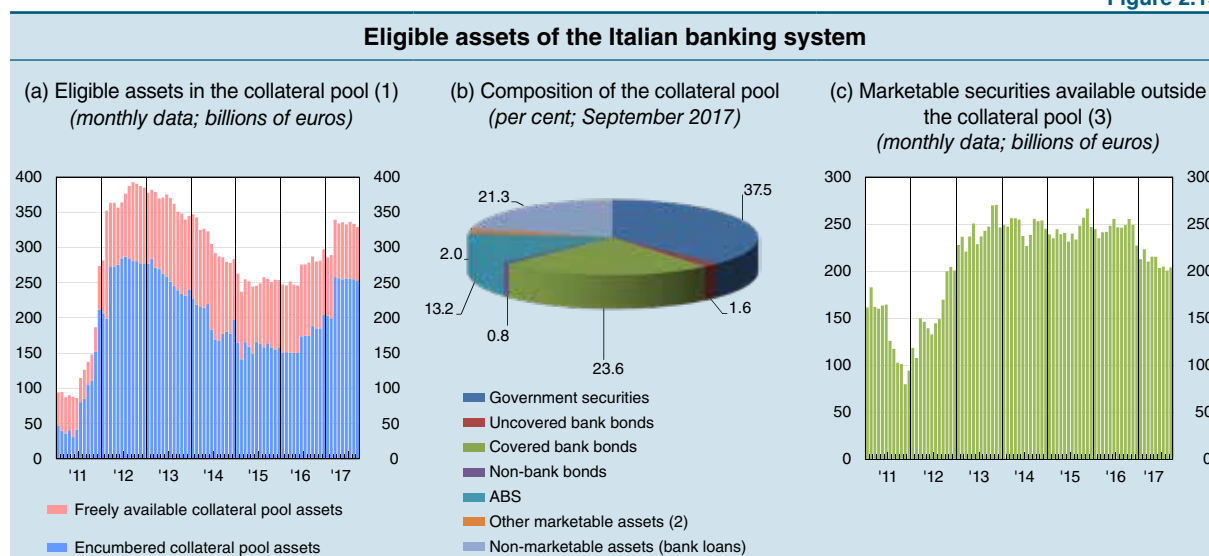
€91 billion worth in the following two years (see Table A5 in *Selected Statistics*); subordinated bonds held by households maturing by 2020 amount to €8.2 billion.

In the future, the dynamics and cost of bond issues will be influenced by the need to satisfy the minimum requirement for own funds and liabilities eligible for bail-in (MREL). In 2016 the Single Resolution Board (SRB) set the MREL values for 2017 and notified them to the main significant banks, listing the liabilities that were eligible according to Directive 2014/59/EU on Bank Recovery and Resolution (BRRD) and including some instruments currently held by retail investors. For these banks, including some Italian banks, the SRB is setting the targets that will become binding in 2018. For the less significant banks, however, the MREL requirement will be set by the national resolution authorities, taking account of the strategy chosen by each bank for any necessary crisis management.

The rules regarding the MREL liabilities are currently under review at European level as regards the quantity of resources required, the level of subordination, and the time needed to make the necessary arrangements. A correct calibration of the requirement will ensure effective resolution of banks in difficulties. Nevertheless, it is necessary to ensure the costs of introducing the new rules can be managed by the banks without any adverse effects on the economy. If the requirement is calibrated too tightly, it may be necessary for banks to issue large volumes of bonds on the wholesale markets, thus causing a notable increase in the yields demanded by investors, possibly with adverse effects on the cost and availability of credit (see the box ‘Minimum requirement for own funds and eligible liabilities (MREL)’, in *Financial Stability Report*, 2, 2016).

Recourse to Eurosystem refinancing remained basically unchanged following the sharp increase in March with the last TLTRO II. In September banks’ assets deposited at the Bank of Italy (the collateral pool) amounted to €329 billion (Figure 2.15.a), €10 billion less than in March; about 38 per cent of these assets were government securities (Figure 2.15.b). The volume of assets that can still be used as collateral to obtain Eurosystem financing remains high. The freely available assets deposited in the collateral pool amount to €77 billion, 23 per cent of the total; the banks also hold €204 billion worth of unencumbered marketable securities outside the collateral pool (Figure 2.15.c), more than 85 per cent of which are government securities.

Figure 2.15



Sources: Based on Eurosystem data and supervisory reports.

(1) End-of-period data for the monetary policy counterparties of the Bank of Italy. The volume of encumbered Eurosystem collateral pool assets includes the part covering accrued interest and refinancing in dollars. The collateral pool is valued at the prices taken from the Common Eurosystem Pricing Hub, net of haircuts. – (2) Includes local and regional government securities and bank bonds backed by the state guarantee scheme. – (3) 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.

Last June, asset encumbrance, i.e. the share of assets used as collateral, fell for the Italian significant banks from 30.6 per cent in March to 29.7 per cent, close to the value recorded by the main European banks (28.1 per cent), and to 21.8 per cent for the less significant banks (22.7 per cent in March). The reduction was mainly due to the contraction of Italian banks' funding on the repo markets (-16 per cent compared with March 2017; see Section 2.1).

Between March and September 2017 the net liquidity position of the significant banks increased by almost 3 percentage points to 14.1 per cent (see *Selected Statistics*, Table A7). The position of the less significant banks remained stable, as in the first nine months of the year, at 16.7 per cent. In the first six months, the liquidity coverage ratio (LCR) increased for both categories of banks and was well above the minimum requirement (Table 2.3).<sup>10</sup>

**Table 2.3**

<b>Liquidity coverage ratio (LCR) of Italian banks</b> (per cent)			
	LCR (at 31 December 2016)	LCR (at 30 June 2017)	Level 1 assets as a percentage of total buffer (1) (at 30 June 2017)
Top 5 groups (2)	146	202	97
Other significant banks (2)	143	153	96
Less significant banks (3)	190	203	100
<b>Total banking system</b>	<b>156</b>	<b>197</b>	<b>98</b>

Sources: Consolidated supervisory reports for banking groups; individual supervisory reports for banks not belonging to a group.

(1) Commission Delegated Regulation (EU) 2015/61, Article 10. – (2) Banks directly supervised by the ECB; only includes banks in existence on both dates –

(3) Banks supervised by the Bank of Italy in close cooperation with the ECB.

### *Interest rate risk and market risk*

Italian banks have little exposure to interest rate risk, measured by the change in the net economic value of the balance sheet (the value of assets minus the value of liabilities) resulting from shifts in the yield curve. Based on the latest available data, which refer to the accounts at the end of June 2017, an upward shift of 200 basis points of the entire risk-free yield curve would result in an average increase in the economic value of 2.7 per cent of own funds for the 11 significant Italian banking groups.<sup>11</sup> For two of the banks, however, there would be a small negative effect. Italian banks' limited exposure to interest rate risk is consistent with the results of the stress test conducted in the first half of 2017 by the ECB on Europe's significant banks.<sup>12</sup>

Market risk is also limited and falling. In the first half of 2017 both the Value at Risk (VaR) of total portfolios at fair value (i.e. banking and trading books) and that of the trading book alone, declined

<sup>10</sup> In 2017 the minimum LCR is set at 80 per cent; as of 1 January 2018 it will be 100 per cent.

<sup>11</sup> The exposure to interest rate risk is calculated by banks based on EBA guidelines (EBA, *Final report. Guidelines on the management of the interest rate risk arising from non-trading activities*, May 2015); the results are transmitted to the supervisory authorities, which assess them as part of the Supervisory Review and Evaluation Process (SREP). The exposure is calculated by estimating the effect of a shift in the yield curve on the 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', in *Financial Stability Report*, 1, 2010); the scenarios are defined by the EBA and include upward and downward parallel shifts of 200 basis points of the risk-free yield curve. The regulatory threshold at which a change in the net book economic value would trigger a more thorough assessment by the supervisory authorities is 20 per cent.

<sup>12</sup> ECB, *Sensitivity analysis of IRRBB - Stress test 2017. Final results*, October 2017.

for the five banking groups that use internal models to quantify market risk (Figure 2.16). The reduction is due in large part to the decline in the average duration of the portfolio and to the sale of bonds.

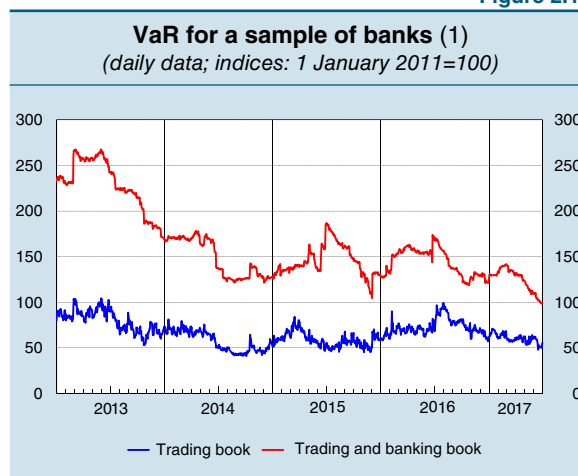
Based on EBA data, at the end of June the portfolio of financial assets held at fair value equalled on average 20 per cent of the total assets for the main Italian banking groups, 7 percentage points lower than for the major European banks. Of this portfolio, 69 per cent was composed of instruments traded on active and liquid markets (Level 1 assets under the International Financial Reporting Standards (IFRS); see the box ‘The composition of assets measured at fair value in banks’ balance sheets’, in *Financial Stability Report*, 1, 2017), meaning that their value can be measured with certainty based on market prices, compared with 37 per cent for European banks as a whole.

### Capital and profitability

Italian banks’ capital adequacy has begun to increase again. In June 2017 the common equity tier 1 (CET1) of Italy’s banking system stood at 12.5 per cent of risk-weighted assets, 1 percentage point higher than at the end of 2016. More than half of the improvement can be put down to an increase in own funds, to which the reduction in risk-weighted assets contributed about 0.4 percentage points (Figure 2.17). The improvement in the capital adequacy ratio benefited from UniCredit’s €13 billion capital increase completed in March of this year. The decrease in risk-weighted assets was partly due to the group’s sale of about €25 billion of non-strategic participating interests and to the dismantling of Banca Popolare di Vicenza and of Veneto Banca as regards assets, mostly NPLs for sale, still being processed as part of the liquidation proceedings. The CET1 ratio of the less significant banks continues to be higher than that of the significant groups, at 15.6 and 11.8 per cent respectively.

The precautionary recapitalization of the Banca Monte dei Paschi di Siena group was concluded in July, with the Ministry of Economy and Finance underwriting the whole capital increase of €3.9 billion and with the conversion of €4.5 billion of subordinated debt. If the effects of this operation are incorporated in the indicators for the first half of the year, the CET1 ratio of the whole banking

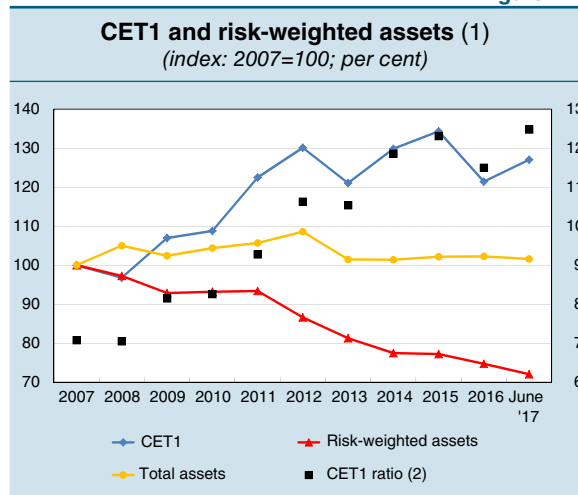
Figure 2.16



Source: Data for a sample of 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 of value on a portfolio that over a given time horizon (10 days) will not be exceeded at a given confidence level (99 per cent). The indices reflect the changes in VaR for all positions (securities and derivatives) entered in the balance sheet at fair value (red line) and for the trading book alone (blue line). A decline indicates a reduction in risk.

Figure 2.17



Source: Consolidated supervisory reports for banking groups and individual supervisory reports for banks not belonging to groups.

(1) Until December 2013 highest quality capital is core tier 1; from March 2014 it is common equity tier 1. – (2) Right-hand scale.

system comes to 13.1 per cent and that of the significant banks to 12.6 per cent. Following these operations the gap between the capital adequacy of significant Italian banks and the average capital adequacy of the leading European banks<sup>13</sup> narrowed to 1.7 percentage points. Banca Carige has begun a capital increase and Credito Valtellinese has announced one; once they have both been completed the banking system's overall capital adequacy will be strengthened.

The new international accounting standard IFRS 9 comes into force at the beginning of next year. Impairment will be calculated on the basis of expected losses instead of effective losses and the classification of financial assets into different accounting portfolios will undergo some changes. The introduction of IFRS 9 will reduce the Italian banks' average CET1 ratio by an estimated 38 basis points, almost entirely owing to the impact of the new method of calculating impairment (see the box 'The impact of the new IFRS 9 accounting standard'). When the new standard comes into force it will no longer be possible to make use of the national discretion allowing less significant banks not to include in CET1 the unrealized gains and losses on exposures to central governments classified in the AFS category.<sup>14</sup> Initially, this change will have minimal effects on the CET1 ratio, but it could lead to more volatile capital ratios in the future as they increasingly reflect movements in the prices of sovereign issues.

#### THE IMPACT OF THE NEW IFRS 9 ACCOUNTING STANDARD

On 1 January 2018 the new international accounting standard IFRS 9 will come into force, replacing IAS 39. The most significant change is the shift from a calculation model for write-downs based on incurred losses to one based on expected losses. The new standard also modifies the criteria for classifying financial assets into the different accounting portfolios.

The new calculation model for write-downs classifies credit exposures into three categories, reflecting their level of impairment. The category defined as Stage 1 comprises exposures for which credit risk has not increased significantly since the loan was originated (granted or purchased by a bank); for these exposures, expected losses must be estimated over a twelve-month horizon. The Stage 2 category comprises exposures for which credit risk has risen significantly since origination; for these exposures, expected losses must be estimated considering their entire residual lifetime. The Stage 3 category includes non-performing exposures, i.e. those that were affected by an event (e.g. breach of contract) that had a negative effect on estimated financial flows; for these exposures, expected losses must be estimated over their residual lifetime, as in the case of Stage 2 exposures, with the additional element of more prudent rules for calculating interest. Compared with IAS 39, IFRS 9 will entail increased write-downs, especially for credit exposures affected by a significant rise in credit risk.

In order to analyse the effects of the introduction of the new accounting standard, the European Banking Authority (EBA) and the Single Supervisory Mechanism (SSM) have conducted two separate surveys: the SSM survey covers all significant banks and a sample of less significant banks.

<sup>13</sup> EBA, *Risk Dashboard Data as of Q2 2017*, October 2017.

<sup>14</sup> Under ECB Regulation 2016/445 on the exercise of options and discretions available in Union law, the ordinary transitional provisions laid down in Regulation EU/2013/575 (Capital Requirements Regulation, CRR) apply to significant banks. Accordingly, the unrealized gains and losses on assets measured at fair value classified in the AFS category are included in part or deducted from CET1 at a gradually increasing rate until full inclusion/deduction as of 1 January 2018. This year, the percentage of CET1 applying to such items is 80 per cent. For the less significant banks the Bank of Italy will exercise its waiver as competent authority (see Banca d'Italia, *Chiarimenti sul trattamento prudenziale di profitti e perdite non realizzati derivanti da esposizioni verso amministrazioni centrali classificate nel portafoglio 'Attività finanziarie disponibili per la vendita'*, January 2017).

The Bank of Italy has extended the exercise to an additional sample of less significant banks.<sup>1</sup> Of the Italian banks interviewed, 67 answered in full, accounting for about three quarters of the Italian banking system's assets.

For Italian banks the introduction of IFRS 9 will entail an estimated average reduction<sup>2</sup> of 38 basis points in the ratio of common equity tier 1 capital to risk-weighted assets (CET1 ratio), almost entirely ascribable to the effects of the new calculation model to be used for write-downs. The effect is expected to be more moderate for significant banks than for less significant banks (37 and 47 basis points respectively). These figures necessarily rest on assumptions and simplifications and reflect the state of progress of the models on the date the estimates were made available. The estimated impacts do not take account of the transitional provisions set out during the review of Directive 2013/36/EU (Capital Requirements Directive, CRD4) and Regulation (EU) No. 575/2013 (Capital Requirements Regulation, CRR) and whose purpose is to spread the effects of the new calculation rules for write-downs over several financial years.

The surveys also made it possible to gather information on banks' preparedness with respect to the new regulatory framework – which is uneven – and the major problems perceived. The main difficulty, especially for smaller banks, is the development of calculation models for expected losses, which require good-quality data and sufficiently long time series. Many banks believe that the introduction of IFRS 9 will increase the volatility of their profits and capital, mostly as an effect of exposures moving from Stage 1 (twelve-month expected losses) to Stage 2 (lifetime expected losses) and vice versa.

<sup>1</sup> The three surveys (EBA, SSM-ECB, and Bank of Italy) all drew on estimates that simulated the impact of IFRS 9 on the CET1 ratio at 31 December 2016. However, the estimates were submitted in different periods: during the first quarter of 2017 for significant banks and around mid-2017 for less significant banks.

<sup>2</sup> Weighted average; the weights are the amounts of financial assets on the balance sheets.

Italian banks' operating profit increased in the first half of 2017, owing partly to the growth in income and partly to the reduction of costs. Gross interest income rose by 1.0 per cent compared with a year earlier. Operating costs fell by 2.2 per cent, largely through a reduction in staff costs. The cost-income ratio fell by about 3 percentage points (to 64.5 per cent) with respect to June 2016, eliminating part of the gap with the average for the main euro-area banks (62.9 per cent). Operating profit rose by 7.3 per cent. The accounting of impairments resulting from NPL sales by some banks led to a 20.5 per cent increase in write-downs of credits; these absorbed about 80 per cent of operating profit compared with 71.2 per cent in the first half of 2016.

Average return on equity (ROE) rose from 2.3 per cent in the first half of 2016 to 4.8 per cent. Net of extraordinary income from consolidations by some significant banking groups, however, it is estimated at 1.5 per cent in the first six months of this year.

The outlook for banks' profit over the next two years depends very much on the continued growth of the economy and its positive effect on credit quality and increased income. The significant banks report that in the period 2017-19 they expect operating profit to rise, mainly owing to reduced loan impairments and, to a smaller extent, increased interest income; they also project higher fee income from asset management. According to the banks operating profit will also improve as a result of a drop in staff costs when the agreements reached with the unions come into force. Overall, in 2019 net profit should come close to the figures recorded shortly before the onset of the global financial crisis; ROE is expected to be lower, however, owing to decreased leverage. The profitability estimates of the main listed banks are generally in line with the projections of market analysts.

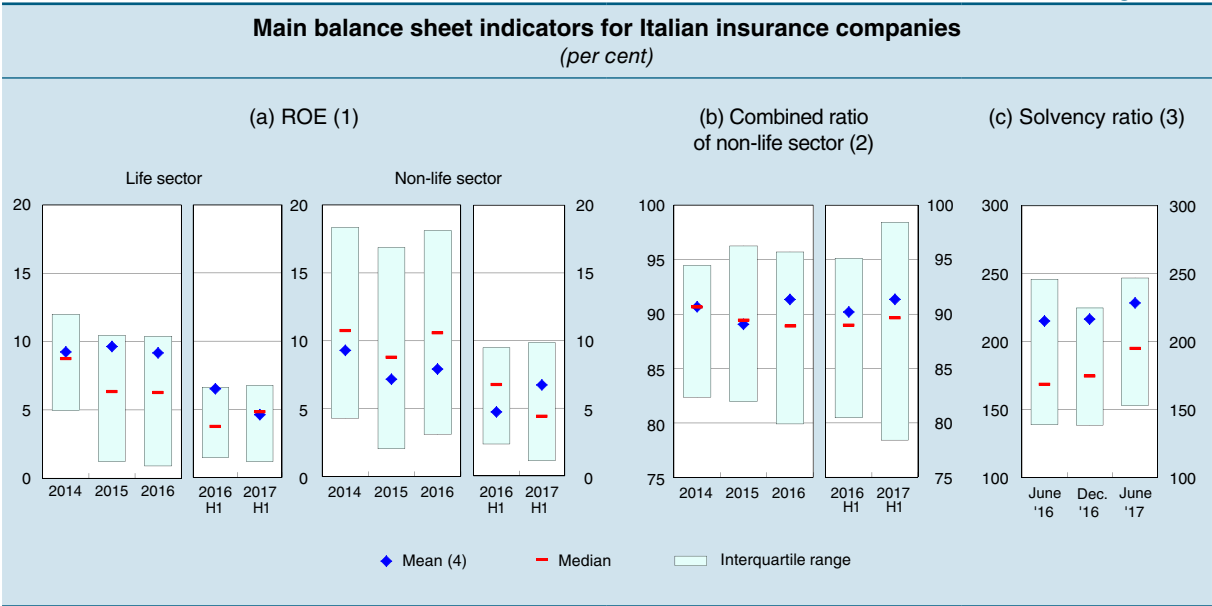
Based on the latest macroeconomic forecasting scenario, we project that the profits of Italian banks will increase over the next two years as a result of more than 15 per cent growth in interest income driven by a moderate upturn in lending and, to a lesser extent, by a slight rise in the slope of the yield curve. Assuming a very favourable situation as regards the growth of other sources of income in the next few years (10 per cent annually), operating profit would return to pre-crisis levels (about 1.3 per cent of unconsolidated assets) only if very significant improvements in efficiency are achieved.

### 2.3 INSURANCE COMPANIES AND THE ASSET MANAGEMENT INDUSTRY

#### Insurance

In the first half of 2017, the profitability of the life and non-life insurance sectors differed for Italian insurance companies: in the life sector, the return on equity (ROE) fell to 4.6 per cent, while in the non-life sector it rose to 6.7 per cent (Figure 2.18.a). In the non-life sector, the combined ratio, i.e. the ratio of incurred losses plus operating expenses to premium income, remained modest (Figure 2.18.b).

Figure 2.18



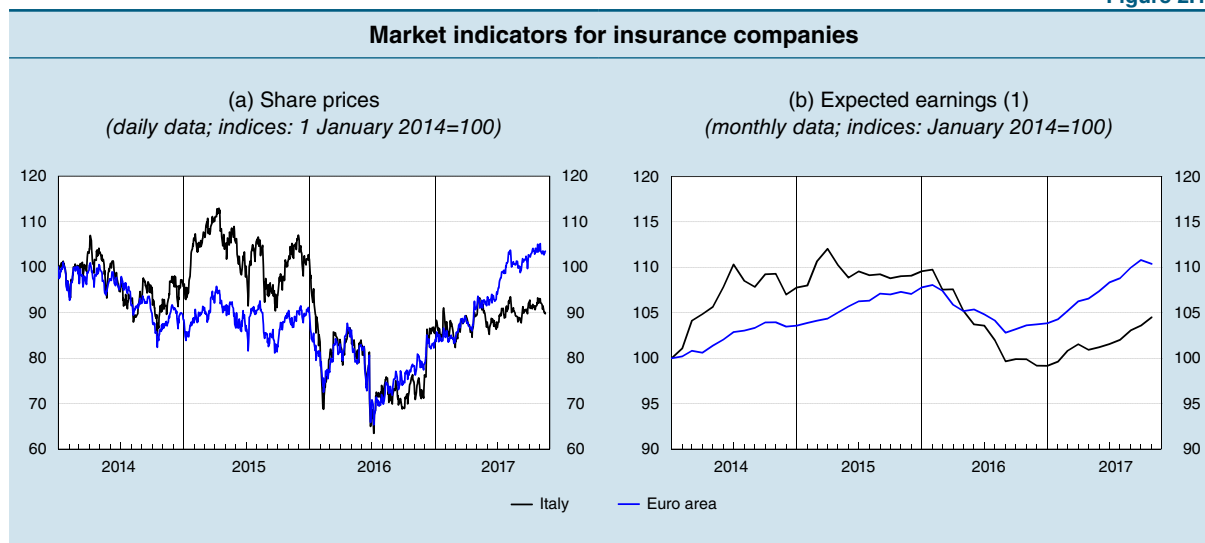
Source: IVASS. (1) Ratio of earnings to shareholders' equity. The half-year data are not annualized. The ROE half-year data are based on a sample that includes the main Italian companies. – (2) Ratio of incurred losses plus operating expenses to premium income for the period. – (3) The solvency ratio is calculated as the ratio of own funds held for coverage to the solvency capital requirement calculated as required by the Solvency II Directive (2009/138/EC). – (4) Weighted average with the weights equal to the denominator of each ratio.

In recent months, investors' fears about the exposure of Italian insurances companies' bond portfolios to a widening in credit spreads stemmed the rise in insurers' share prices and expected earnings, which grew by less than the euro-area average (Figure 2.19).

In the first half of 2017, the solvency ratio rose to 229 per cent,<sup>15</sup> more than double the minimum capital requirement (Figure 2.18.c). The effects of the decline in the market value of government

<sup>15</sup> For a definition of the solvency ratio, see Note 3 to Figure 2.18. The Solvency II Directive requires that this ratio be equal to or greater than 100 per cent.

Figure 2.19



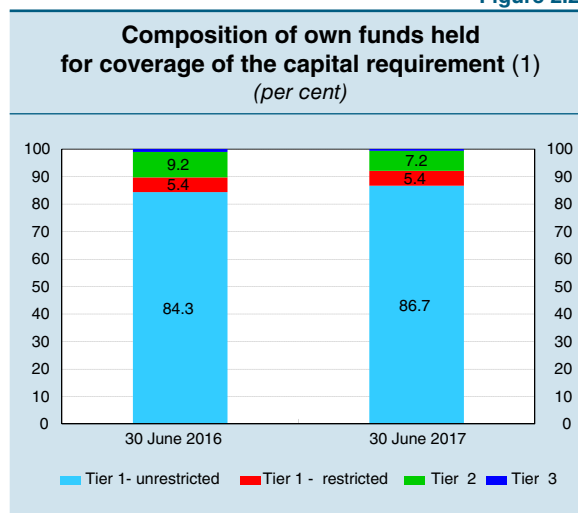
Source: Based on Thomson Reuters Datastream data.

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

securities observed in this period were more than offset by the greater availability of own funds arising from the appreciation of private sector securities and investment funds units included in the portfolio. Insurance companies' average solvency ratio is well above the minimum requirement, even excluding the benefit derived by applying the long-term guarantees envisaged by Solvency II to attenuate the effects of market price volatility on solvency ratios.<sup>16</sup> Tier 1 capital accounts for 92 per cent of the total, much more than the 50 per cent requirement indicated by Solvency II (Figure 2.20).

For Italian insurers, the risks associated with investment activity are more significant than those strictly connected with insurance activity (Figure 2.21). Compared with the other main European countries, Italian insurers are less exposed to an increase in risk-free interest rates owing to good matching between the durations of assets and liabilities. They are, however, more vulnerable to the risk of a widening in spreads on government securities due to the high share of such investments in their portfolios.<sup>17</sup>

Figure 2.20



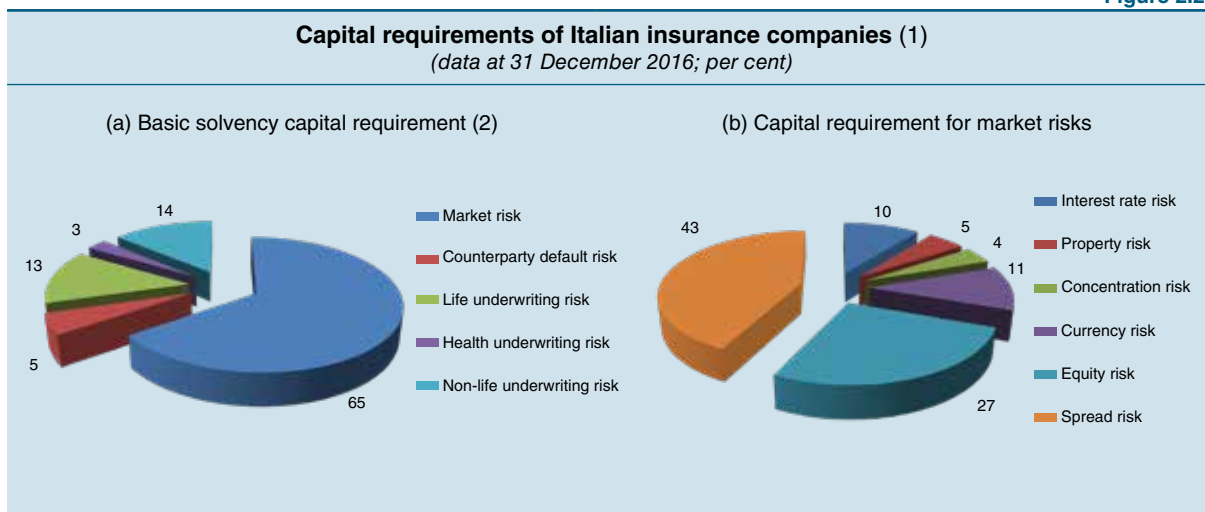
Source: IVASS.

(1) Own funds are classified into three tiers (Tier 1, Tier 2 and Tier 3) based on the extent to which they can be used to absorb losses, taking account of their degree of subordination and their duration. Unrestricted Tier 1 funds mainly include ordinary share capital and reserves; restricted Tier 1 funds are composed of preferred shares and subordinated liabilities.

<sup>16</sup> Of the long-term guarantees envisaged by the directive, the volatility adjustment is the only one applied by Italian insurance companies (see the box 'The measures envisaged by Solvency II. The impact of the volatility adjustment for Italian and European insurance companies', in *Financial Stability Report*, 1, 2017).

<sup>17</sup> IMF, *Global Financial Stability Report*, October 2017.

Figure 2.21

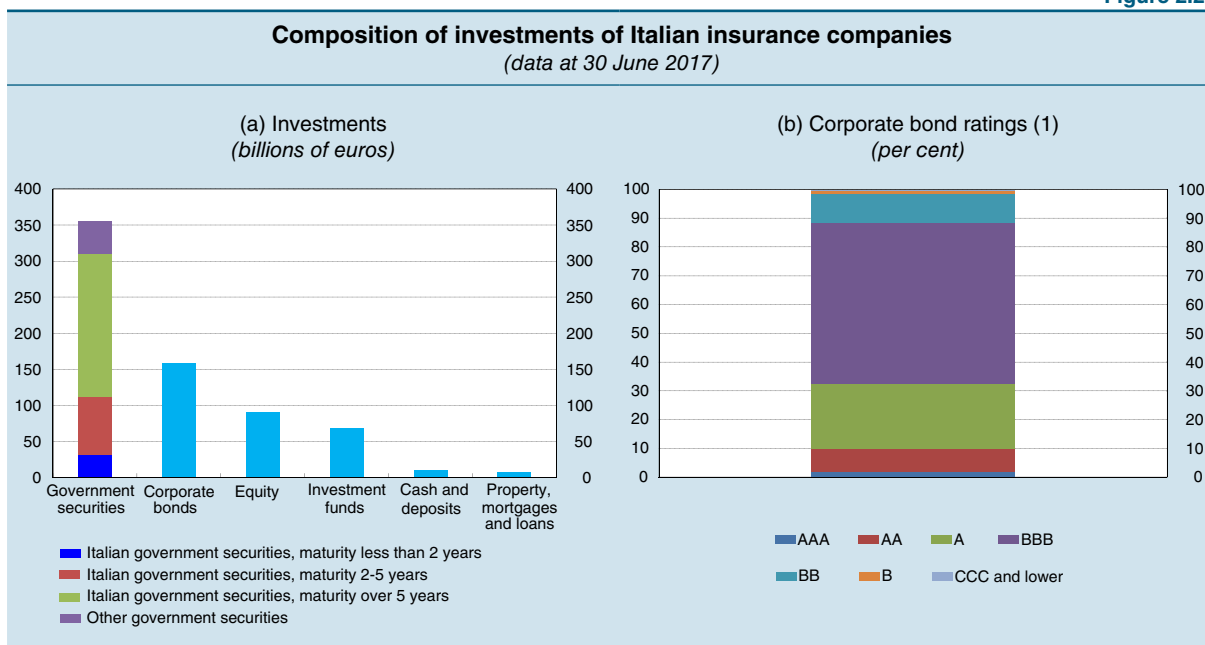


Source: IVASS.

(1) The data only consider those companies (97 undertakings representing 59 per cent of total assets) that use the standard formula to calculate the solvency capital requirement (SCR). – (2) The basic solvency capital requirement (BSCR) is calculated by aggregating the market risk, counterparty default risk and underwriting risk (life, non-life and health) modules. The final SCR is determined by adding an operational risk module to the BSCR and taking account of the loss-absorbing capacity of technical provisions and deferred taxation.

Compared with the other main European countries, Italian insurance companies also have smaller corporate bond holdings<sup>18</sup> (Figure 2.22.a; see the box ‘Insurance companies’ investments’); over 90 per cent of these bonds are rated; of these, almost all are investment grade (BBB or higher; Figure 2.22.b).

Figure 2.22



Source: IVASS.

(1) The percentage is calculated based on total rated assets.

<sup>18</sup> EIOPA, *Financial Stability Report*, June 2017.



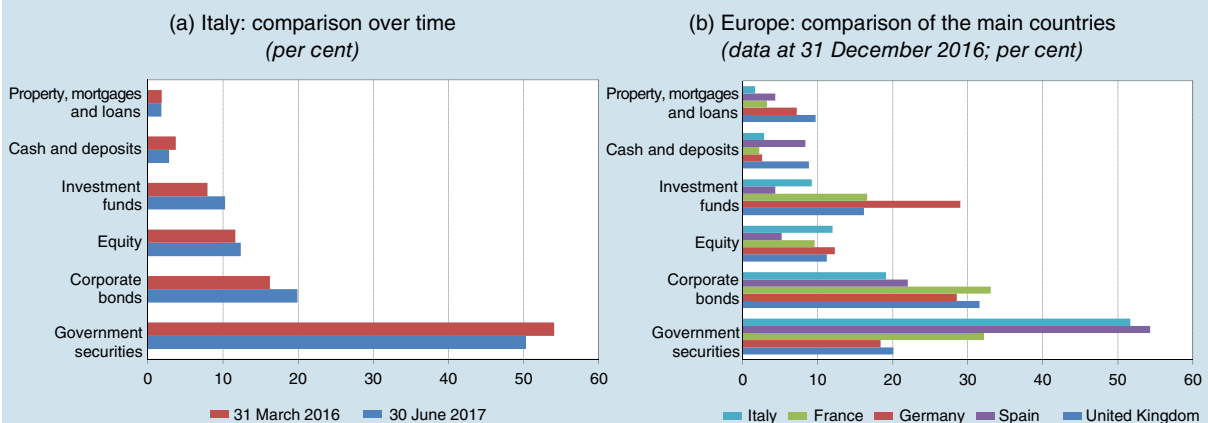
## INSURANCE COMPANIES' INVESTMENTS

The findings of a survey conducted by the European Insurance and Occupational Pensions Authority (EIOPA)<sup>1</sup> on the investment strategies of European insurance undertakings show that, in the years prior to the entry into force of Solvency II (from 2011 to 2015), insurers extended the maturity of their bond portfolios in order to reduce the duration gap. The new rules introduced by Solvency II raise the capital requirement for exposure to a change in interest rates. The adjustment also affected Italian companies that already had a good matching of the durations of assets and liabilities (see the box 'The EIOPA stress test for the risk of low interest rates', in *Financial Stability Report*, 1, 2015).

During the same period, asset composition was also influenced by the downgrading of Italy's sovereign debt rating by credit rating agencies: in the portfolio of Italian insurers, the percentage of securities with an A rating fell from 52 per cent to 11 per cent, while those rated BBB rose from 11 per cent to 59 per cent.

In recent months, Italian insurance companies have reduced their investments in Italian and foreign public sector securities in order to diversify their holdings. Between March 2016 (the first month for which comparable data are available) and June 2017 the ratio of government securities to total assets fell by 4 percentage points (by €17 billion), while the ratio for corporate securities and investment funds increased (see panel (a) of the figure).

### Investments of Italian and European insurance companies



Sources: Ivass and EIOPA.

Government securities as a share of the portfolio of Italian insurance companies is still, however, higher than in France, Germany and the United Kingdom (see panel (b) of the figure). The proportion of equities is in line with the average of these countries; by contrast, corporate bonds<sup>2</sup> (20 per cent) and investment funds make up a much smaller share. For Italian insurance companies, domestic issuers make up 88 per cent of the government securities segment and 27 per cent of the corporate bonds segment.

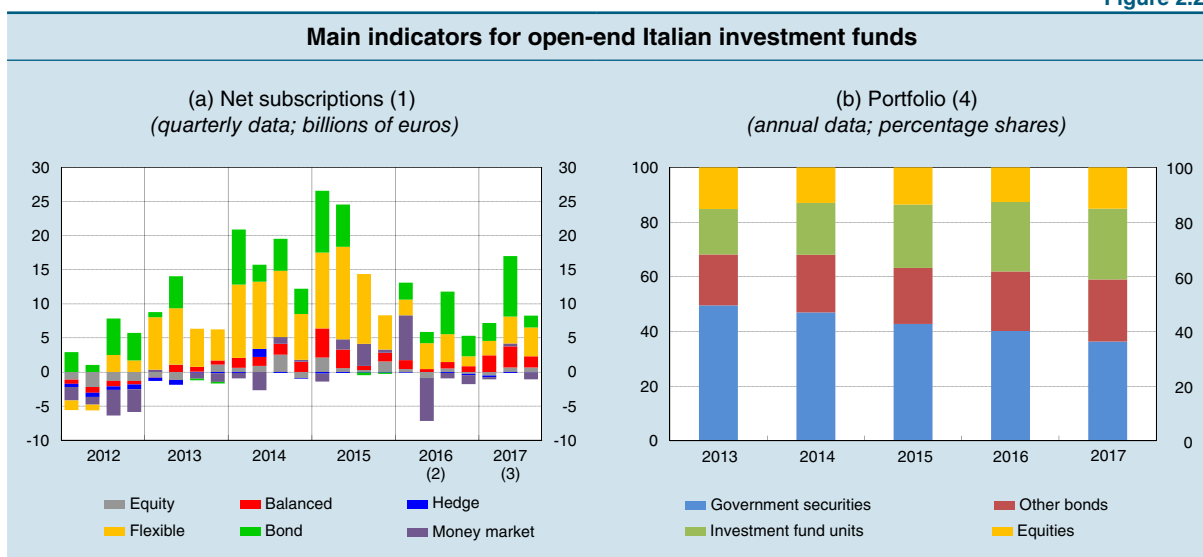
<sup>1</sup> The survey was conducted on a sample of 91 European insurance companies and groups subject to financial stability reporting requirements, including six of the leading Italian insurance groups (see EIOPA, *Investment Behaviour Report*, 2017).

<sup>2</sup> The share does not include structured notes and collateralized securities.

## The asset management industry

In the first nine months of the year investment fund subscriptions rose markedly (Figure 2.23.a), favoured both by the performance of the markets and by the introduction of long-term individual savings plans (*piani individuali di risparmio* or PIR), which are investment instruments eligible for tax exemptions (see the box ‘Individual savings plans’).

Figure 2.23



## INDIVIDUAL SAVINGS PLANS

Long-term individual savings plans (*piani individuali di risparmio* or PIR) were introduced by the 2017 budget law (Law 232/2016) with the aim of encouraging, through tax exemptions, investment in financial instruments issued by Italian companies.<sup>1</sup>

The fiscal incentive consists in the total exemption of investments from both capital gains and inheritance tax: natural persons resident in Italy are eligible for investments made outside the scope of commercial operations. Each individual can hold just one savings plan in which no more than €30,000 can be invested each year, up to a cumulative limit of €150,000. In order to qualify for the fiscal concessions, the financial instruments included in the plans must be held for a minimum of five years:<sup>2</sup> this should discourage speculation and ensure a regular inflow of funds to the issuing companies.

The plans can be activated through investment in funds, asset management products, insurance contracts or securities deposits subject to limits on portfolio composition.<sup>3</sup> At least 70 per cent of the total value

<sup>1</sup> Ministry of Economy and Finance, *Linee guida per l'applicazione della normativa sui piani di risparmio a lungo termine*, 2017.

<sup>2</sup> The early disposal of financial instruments subject to the minimum holding period of five years does not determine the loss of the tax benefits if the sums arising from the sale are reinvested in equivalent financial instruments within 90 days.

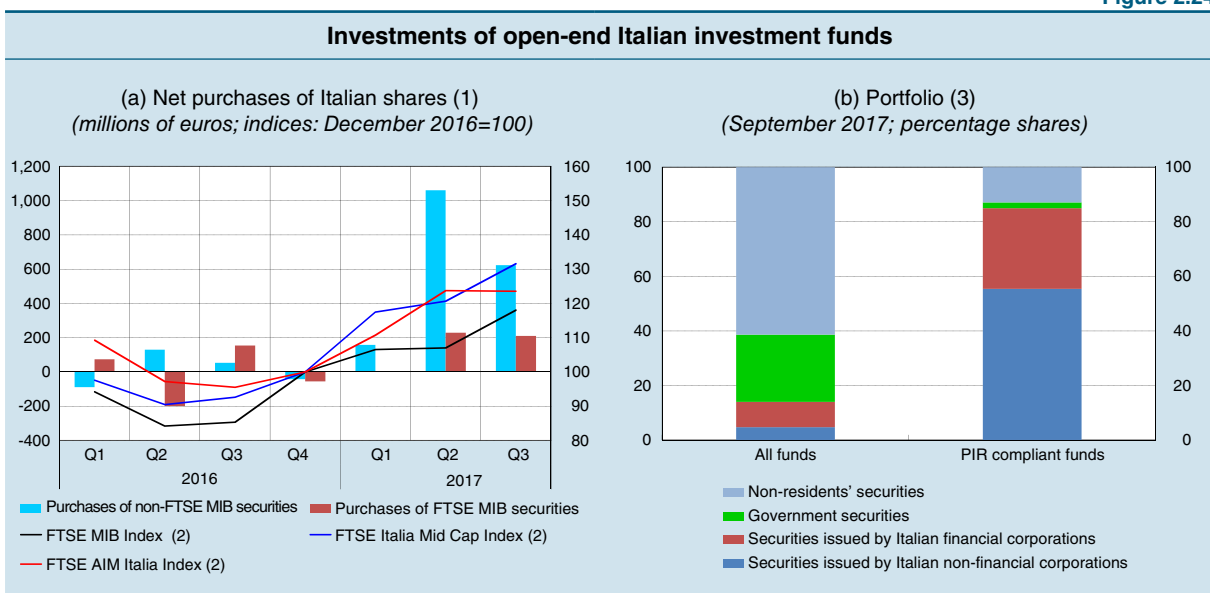
<sup>3</sup> The constraints must be respected for at least two-thirds of each solar year of the plan's duration. The savings plan cannot consist in qualified social equity holdings or instruments that produce income that goes towards calculating a person's total taxable income.

of the assets held in the savings plans must be invested in financial instruments, including unlisted instruments, issued by non-real-estate companies resident in Italy or in EU members states or in states belonging to the European Economic Area with a permanent presence in Italy. Of this 70 per cent, at least 30 per cent must be invested in financial products issued by firms other than those included in the FTSE MIB index of the Italian stock exchange or in equivalent indices of other regulated markets. The assets of the PIR are subject to limits on the concentration of investments in individual borrowers.

For now the long-term plans are activated primarily through subscriptions of units of investment funds. In the first nine months of 2017 the number of Italian funds that comply with the investment constraints on PIR prescribed by law (44 at the end of the period, of which 29 set up after the relevant legislation was passed) raised almost €7 billion in funds, more than half of the total raised by Italian open-end funds.

The share of government securities held in the portfolios of Italian open-end funds continued to decline, while that of privately issued debt increased (Figure 2.23.b); the risks stemming from investment in assets with a low degree of liquidity continue to be limited, given that they represent a small proportion of portfolios. The introduction of PIR, by virtue of the portfolio constraints prescribed by law, led to increased investment in financial instruments issued by residents – especially securities issued by medium-sized non-financial corporations – which was accompanied by a sharp rise in the prices and volumes traded in the corresponding market segments (Figure 2.24).

Figure 2.24



Sources: Supervisory reports and data from Thomson Reuters Datastream.  
 (1) Includes only ordinary shares of resident companies. – (2) Right-hand scale. – (3) Non-residents' securities include units of foreign investment funds; the securities of Italian financial corporations include units of Italian investment funds.

In the medium term, the new individual savings plans will favour the growth of financial markets and new corporate listings. However, until the markets in debt securities issued by small non-financial corporations become sufficiently deep and liquid, the risk remains that episodes of severe volatility in share prices could lead to substantial losses, with potentially negative repercussions on the reputation of the intermediaries that placed these products.

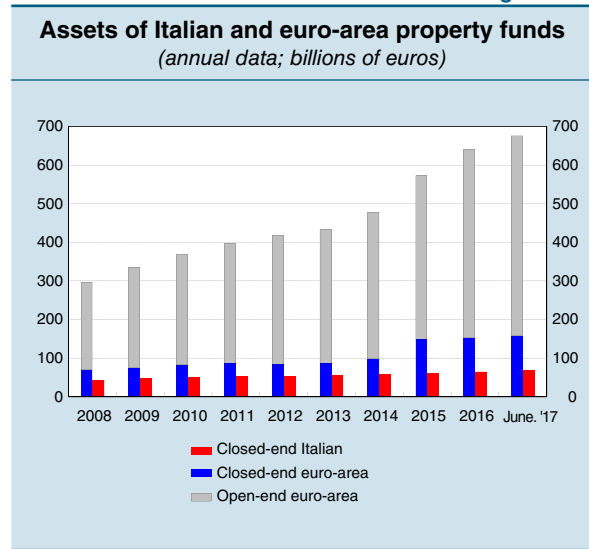
More than 20 private debt funds are active in Italy, specialized in direct lending to firms (permitted by law since the end of 2014), the purchase of credits already disbursed by third parties, and investment in

minibonds. At the end of June 2017, the net asset value of these funds amounted to €1.6 billion. The risks associated with the scant liquidity of assets in private debt funds' portfolios are mitigated by the legislation, which obliges them to be set up as closed funds and imposes limits on the amount they can borrow and on the concentration of risk in individual debtors.

The assets of property funds continued to expand (by just under 5 per cent in the first six months of 2017), thanks to new initiatives by institutional investors, including foreign investors, which assigned properties to specialized management companies. The expansion is nonetheless still very small by comparison with other European countries (Figure 2.25).

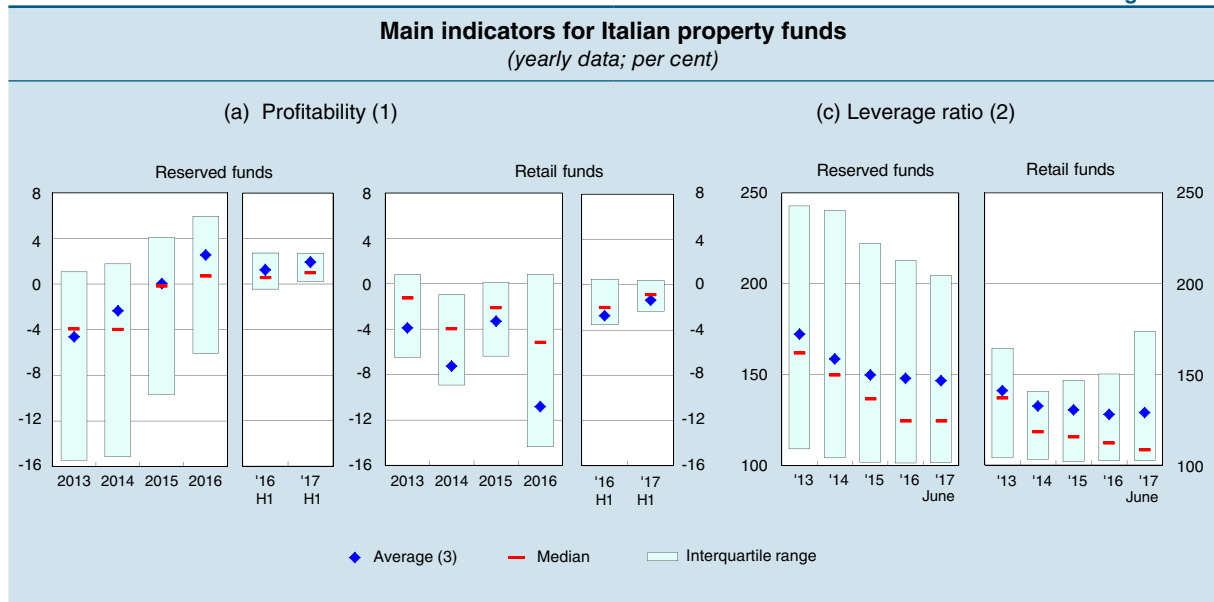
The performance of Italian property funds continues to be affected by the halting recovery in the real estate market (see Section 1.1 and Figure 2.26.a). The overall returns recorded since they commenced operations have been negative for about half of the funds (see the box 'The impact of the real estate cycle on Italy's property fund sector', in *Financial Stability Report*, 1, 2017). The returns of retail property funds are being affected by write-downs of portfolio assets as they approach maturity; the funds maturing by 2020 account for more than 70 per cent of this sector's total funds.<sup>19</sup>

Figure 2.25



Sources: Bank of Italy and ECB.

Figure 2.26



Source: Supervisory reports.

(1) Ratio of profits to the average of net assets at the end of the reference year and of the previous year. The half-yearly data on funds reserved for qualified investors refer to a sample of main funds. – (2) Ratio of total assets to net wealth. – (3) Weighted average with weights equal to the denominator of each ratio.

<sup>19</sup> See the article on retail property funds on the Bank of Italy's website *Focus sull'industria dei fondi immobiliari retail*, published on 16 June 2017.

The risks to financial stability from property funds remain limited. Unlike other European judicial systems, Italian law requires property funds to be closed-end, safeguarding them from the risks stemming from the need to meet demand for early redemptions by selling off assets. Their financial leverage is basically stable (Figure 2.26.b): while the insolvency conditions of some funds established prior to 2008 remain difficult, those set up subsequently have a more balanced financial structure. The exposure of banks and other financial intermediaries to this sector remains limited overall (less than €19 billion, equal to around 1.1 per cent of the loans granted by Italian intermediaries).

In recent years 19 special purpose acquisition companies (SPACs), which were used to raise the necessary funds for M&As of unlisted firms, have obtained a listing on Borsa Italiana. These companies enable unlisted firms, typically small and medium-sized, to access capital markets faster than through traditional IPOs. At the current time, SPACs do not pose risks to financial stability owing to the small size of the sector and its limited recourse to leverage. At the end of September the market value of these companies and of those established following the acquisition came to €4.3 billion, equal to less than 1 per cent of the total capitalization of the Italian stock exchange.

# 3 MACROPRUDENTIAL MEASURES

The Bank of Italy, in coordination with the European Central Bank, is responsible for activating the macroprudential instruments for banks enshrined in EU legislation (Table 3.1; see p. 5 of the *Executive Summary* of the Bank of Italy's Report on Operations and Activities for 2016). The latest decisions have regarded the setting of the countercyclical capital buffer rate (CCyB) and the identification of material third countries for the Italian banking system for the purpose of applying the countercyclical capital buffer. Before the end of the year the Bank of Italy will publish the results of the annual exercises for identifying global systemically important institutions (G-SIIs) and, at domestic level, other systemically important institutions (O-SIIs), as well as the relative capital buffers.

**Table 3.1**

The main macroprudential instruments for the banking sector (1)	
Instrument	Purpose
Instruments harmonized at European level (2)	
Countercyclical capital buffer	To reduce the procyclicality of the financial system by building up capital buffers during expansions in the financial cycle for absorbing potential losses during contractions
Capital buffers for global systemically important institutions and other systemically important institutions	To increase the ability of systemically important institutions to absorb losses
Systemic risk buffer	To avert or mitigate long-term structural systemic risks
Higher capital requirements for exposures to the real estate sector	To avert or mitigate systemic risks stemming from exposures to the real estate sector
Instruments not harmonized at European level (3)	
Limits on loan-to-value, loan-to-income, and debt service-to-income ratios	To attenuate the phases of the credit cycle and to reinforce the resilience of banks, by reducing risk-taking by borrowers

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

The countercyclical capital buffer rate has been kept at zero per cent throughout 2017 (Table 3.2), based on the expected difference between the credit-to-GDP ratio and its long-run trend (credit-to-GDP gap; see Section 1.1) and on the absence of significant risks to financial stability inferable from an analysis of the other cyclical indicators:<sup>1</sup> while it has fallen, the unemployment rate remains high; property prices have stabilized in real terms but are still far off their long-term levels; growth in business lending continues to be close to zero.

<sup>1</sup> For more details on the criteria for identifying these indicators, see P. Alessandri, P. Bologna, R. Fiori and E. Sette, 'A note on the implementation of the countercyclical capital buffer in Italy', Banca d'Italia, Questioni di Economia e Finanza (Occasional Papers), 278, 2015.

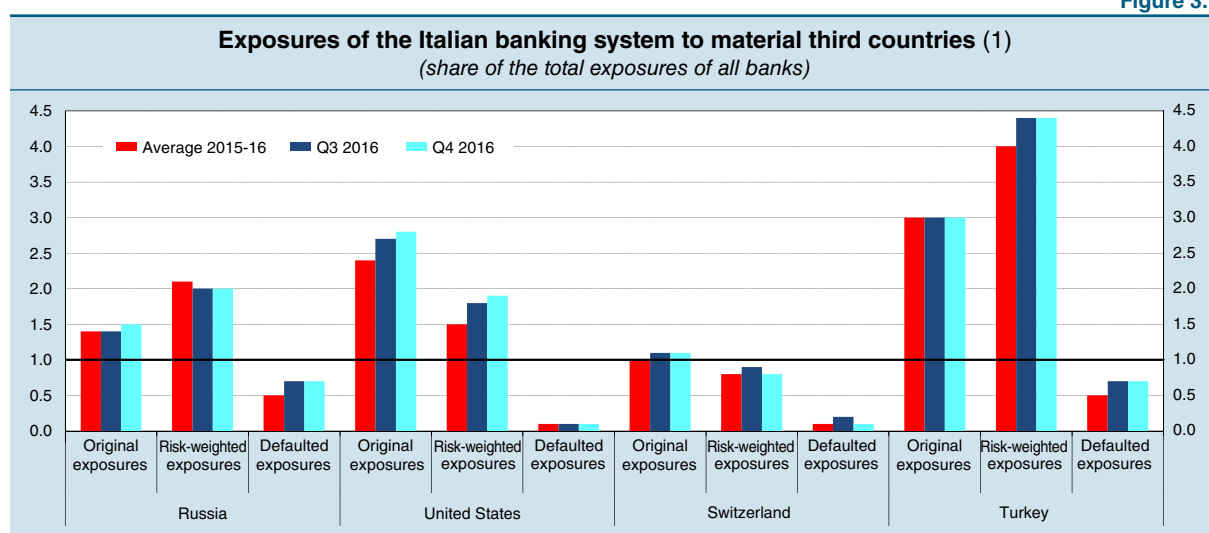
Table 3.2

Recent macroprudential policy decisions of the Bank of Italy (1)		
	Decision	Capital requirement (per cent)
23 June 2017	Setting of the CCyB rate for the third quarter of 2017	0.00
26 June 2017	Identification by Italy of material third countries	–
22 September 2017	Setting of the CCyB rate for the fourth quarter of 2017	0.00

(1) The dates given are those on which the decision was published. For a complete list of the macroprudential policy decisions, see the Bank's website.

Pursuant to a recommendation issued by the European Systemic Risk Board (ESRB),<sup>2</sup> in June 2017 the Bank of Italy identified four countries outside the euro area as material third countries for the purpose of applying the countercyclical capital buffer: Russia, the United States, Switzerland, and Turkey. They were identified by applying the methodology used by the ESRB that defines material third countries as those to which a domestic banking system is exposed in an amount equal to or more than 1 per cent of its total exposures (Figure 3.1).<sup>3</sup> The four countries have also been identified by the ESRB as material to the European Union;<sup>4</sup> the Bank of Italy has determined to rely on the ESRB's monitoring of these countries.<sup>5</sup>

Figure 3.1



(1) Russia, the United States, Switzerland, and Turkey. The aggregate was constructed based on the methodology outlined in Decision ESRB/2015/3.

<sup>2</sup> Recommendation ESRB/2015/1 provides that member states identify material third countries to which they have significant exposures on an annual basis, control the risks stemming from excessive credit growth in these countries, and report to the ESRB itself on cases in which they believe the rate set by the authorities in those countries is insufficient. Based on these reports, the ESRB assesses the advisability of recommending to the designated authorities of the member states that they set a harmonized countercyclical capital buffer rate for exposures to the third countries concerned. According to Decision ESRB/2015/3, the ESRB shall identify annually the third countries to which the European Union is materially exposed.

<sup>3</sup> The exposures considered are original exposures, risk-weighted assets, and defaulted exposures. The share is calculated with reference to the last two quarters and to the average for the last eight quarters.

<sup>4</sup> In addition to the four countries already indicated, the third countries monitored by the ESRB include Brazil, China, Hong Kong, and Singapore.

<sup>5</sup> The ESRB monitors and periodically assesses a set of systemic risk indicators in the countries identified as material, among which the credit-to-GDP gap.

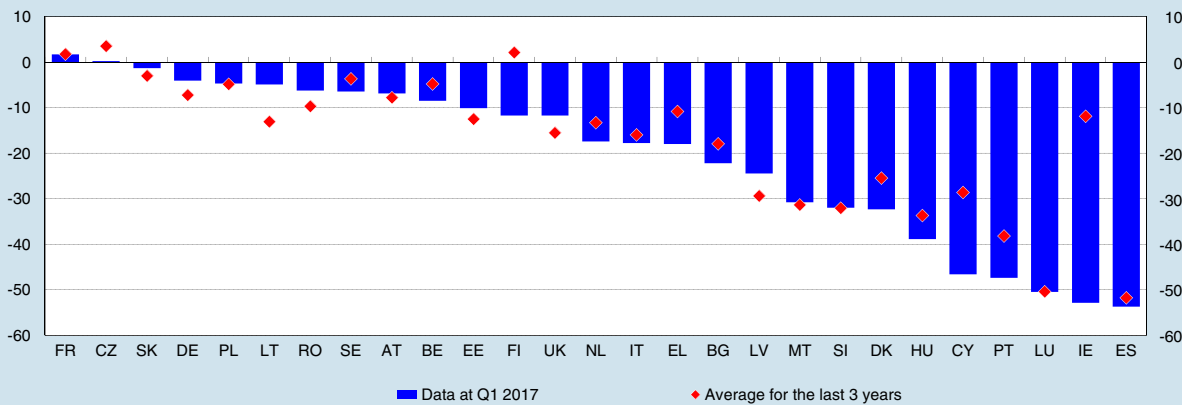
In accordance with European legislation, no later than 1 December 2017 the Bank of Italy will publish its decisions on the banking groups identified as systemically important institutions at domestic level (O-SIIs) for 2018.<sup>6</sup> By the end of this year, the decision concerning the identification of G-SIIs will also be made public. For 2017 the Bank of Italy identified UniCredit, Intesa Sanpaolo and Banca Monte dei Paschi di Siena as O-SIIs and UniCredit as a G-SII (see *Financial Stability Report*, 1, 2017).<sup>7</sup>

In the course of 2017 the national authorities of several EU countries introduced macroprudential measures that included, amongst other things, the countercyclical capital buffer, the systemic risk buffer, and several instruments to combat the risks stemming from the real estate market (see the box ‘The main macroprudential measures recently adopted in the European Union’).<sup>8</sup>

**THE MAIN MACROPRUDENTIAL MEASURES RECENTLY ADOPTED IN THE EUROPEAN UNION**

**The countercyclical capital buffer (CCyB).** – The financial cycle continues to be weak in the majority of EU member states and the difference between the credit-to-GDP ratio and its long-run trend (credit-to-GDP gap) is still mostly negative (see the figure). The CCyB rate is positive only in Sweden (2.0 per cent), the Czech Republic (0.5 per cent), Slovakia (0.5 per cent) and the United Kingdom (0.5 per cent since June 2018; see the table).

**Credit-to-GDP gap in the EU countries (1)**  
(percentage points)



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

<sup>6</sup> The decisions on the identification of O-SIIs and the related capital buffers are revised at least once a year.  
<sup>7</sup> In accordance with European legislation, the UniCredit Group will have to apply only the higher between the G-SII and the O-SII buffers.  
<sup>8</sup> For more details on the individual measures, see the table on the ESRB’s website: [National measures of macroprudential interest in the EU/EEA](#).



### Countercyclical capital buffers in the EU countries

	Rate applied (per cent)	As of	Rate announced (per cent)	As of
Austria, Belgium, Bulgaria, Croatia, Cyprus, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, <b>Italy</b> , Latvia, Lithuania, Luxembourg, Malta, Netherlands, Poland, Portugal, Romania, Slovenia, Spain	0.00	1 January 2016	–	–
United Kingdom	0.00	1 January 2016	0.50	27 June 2018
Czech Republic	0.50	1 January 2017	1.00	1 July 2018
Slovakia	0.50	1 August 2017	1.25	1 August 2018
Sweden	2.00	19 March 2017	–	–

Source: ESRB.

**The systemic risk buffer (SRB).** – Since the start of 2017 Poland and Hungary have activated systemic risk buffers for the first time while Slovakia has instead reduced its SRB.<sup>1</sup> European legislation permits the authorities to apply this buffer both to the banking system as a whole and to certain kinds of institution, to counter different risks. In some cases it was used to address risks stemming from a high concentration of the banking system's exposures to specific sectors or geographical areas (for example, to the commercial real estate sector in Hungary or to the countries of Eastern Europe in Austria). In other cases it was used to counter the risks associated with a highly concentrated banking sector (Estonia) and to improve banks' ability to cope with possible shocks to the economy (Poland). The systemic risk buffer was also used for certain kinds of institution, for example to strengthen O-SII buffers (Slovakia) or to replace them (Denmark, Czech Republic).<sup>2</sup> This buffer, which is envisaged but not mandatory under EU law, has not been introduced in Italy.

**Measures to address risks stemming from the real estate market.** – Authorities in a number of EU countries have, most markedly since 2014, adopted macroprudential measures to counter the risks stemming from the real estate market: these include instruments harmonized at European level and non-harmonized instruments. The former include those envisaged under Regulation EU/2013/575 (Capital Requirements Regulation, CRR) in Articles 458 (Belgium, Finland) and 124 (Croatia, Ireland, United Kingdom, Romania, Slovenia and Sweden),<sup>3</sup> which enable the risk

<sup>1</sup> In Poland the SRB will apply from 1 January 2018; in Hungary it came into force on 1 July 2017, though it had been announced back in 2014. In Slovakia the buffer, which should have increased starting on 1 January 2018, will remain unchanged for three banks and will be set at zero for the fourth bank now subject to the SRB.

<sup>2</sup> Directive 2013/36/EU (Capital Requirements Directive, CRD IV) envisages a maximum capital buffer for O-SIIs of 2 per cent of total risk-weighted exposures. The SRB envisages a minimum of 1 per cent but no maximum.

<sup>3</sup> Article 458 of the CRR regulates a set of macroprudential instruments (national flexibility measures), which make it possible to apply more stringent measures at national level than those envisaged at EU level under the harmonized framework, in respect of: (a) the level of own funds; (b) the requirements for large exposures; (c) the public disclosure requirements; (d) the level of the capital conservation buffer; (e) liquidity requirements; (f) risk weights for targeting asset bubbles in the residential and commercial property sector; (g) intra financial sector exposures. For the banks that use the standardized method to calculate the capital requirements for credit risk, Article 124 allows supervisory authorities to require higher risk weights for exposures secured by immovable property.

weights applied by banks to real estate exposures to be raised, thereby strengthening the ability of institutions to cover potential losses in the event of a fall in house prices. The non-harmonized instruments designed to prevent the assumption of excessive risks by banks include limits on loan-to-value (LTV), loan-to-income (LTI) and debt service-to-income (DSTI) ratios.<sup>4</sup>

<sup>4</sup> Limits on LTV ratios were applied by Cyprus, the Czech Republic, Denmark, Estonia, Finland, Hungary, Ireland, Latvia, Lithuania, Malta, the Netherlands, Poland, Romania, Slovakia, Slovenia, and Sweden; on LTIs, by Ireland, the Netherlands, and the United Kingdom; on DSTIs, by Cyprus, Estonia, Hungary, Lithuania, the Netherlands, Romania, Slovakia, and Slovenia. In most cases maximum acceptable levels were imposed. Some countries instead introduced quantitative limits on the shares of new housing loans with ratios above certain limits (Denmark, Estonia, Ireland, the United Kingdom); others adopted both solutions, introducing quantitative limits on the shares of new housing loans with ratios within certain thresholds, and a maximum acceptable limit (Lithuania, the Czech Republic, Slovakia). Some authorities requested that as a condition for the granting of new housing loans, banks first carry out stress tests to assess borrowers' ability to repay them in the event of a rise in interest rates (Cyprus, Estonia, Ireland, Slovakia, the United Kingdom, Romania).

# SELECTED STATISTICS



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Table A1

Financial sustainability indicators (per cent of GDP, unless otherwise specified)												
GDP (annual growth rate) (1)		Characteristics of public debt					Primary surplus (2)	S2 sustainability indicator (4)	Private sector financial debt (5)		External position statistics (6)	
		Level (2)	Average residual life of govt. securities (years) (3)	Non- residents' share (% of public debt) (3)					House- holds	Non- financial firms	Current account balance	Net international investment position
	2017	2018	2017	2018	2017	2017	2017	2015	2017	2017	2017	2017
Italy	1.5	1.3	132.1	130.8	6.9	32.0	1.7	0.5	41.4	73.3	2.8	-8.5
Germany	2.2	2.1	64.8	61.2	5.8	52.2	2.1	2.0	53.1	53.8	7.8	57.3
France	1.6	1.7	96.9	96.9	7.4	56.4	-1.1	0.7	58.2	133.8	-1.2	-23.3
Spain	3.1	2.5	98.4	96.9	7.0	45.3	-0.6	1.9	63.1	99.9	1.8	-86.2
Netherlands	3.2	2.7	57.7	54.9	6.9	48.3	1.7	3.1	106.8	121.1	9.8	70.1
Belgium	1.7	1.8	103.8	102.5	9.4	60.0	1.1	3.1	59.8	163.5	-1.1	51.3
Austria	2.6	2.4	78.6	76.2	8.3	73.4	0.9	2.4	50.5	90.1	1.6	5.6
Finland	3.3	2.7	62.7	62.1	6.2	69.2	-0.4	3.2	66.9	114.1	-0.7	-13.8
Greece	1.6	2.5	179.6	177.8	....	....	2.0	....	58.7	62.2	-1.1	-142.3
Portugal	2.6	2.1	126.4	124.1	6.2	58.0	2.5	1.3	70.9	110.2	0.5	-105.1
Ireland	4.8	3.9	69.9	69.1	10.7	59.6	1.6	0.5	49.9	215.4	3.9	-176.0
Euro area	2.2	2.1	89.3	87.2	....	....	0.9	1.5	58.1	103.4	3.0	-5.7
United Kingdom	1.5	1.3	86.6	85.3	14.9	32.4	0.5	3.0	86.5	79.5	-5.0	-5.0
Unites States	2.2	2.3	108.1	107.8	5.8	30.0	-2.2	....	78.2	73.3	-2.4	-41.8
Japan	1.5	0.7	240.3	240.0	7.7	9.8	-4.0	....	54.8	102.1	3.8	64.6
Canada	3.0	2.1	89.6	87.7	5.4	22.7	-1.5	....	99.7	116.1	-2.9	13.0

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

(1) For European countries, European Commission, *European Economic Forecast, Autumn 2017*, November 2017; for non-European countries, IMF, *World Economic Outlook*, October 2017. – (2) For European countries, European Commission, *European Economic Forecast, Autumn 2017*, November 2017; for non-European countries, IMF, *Fiscal Monitor*, October 2017. – (3) IMF, *Fiscal Monitor*, October 2017. – (4) European Commission, *Debt Sustainability Monitor 2016*, January 2017. 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. – (5) Loans and securities. The data refer to the end of Q2 2017; 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. – (6) The data refer to Q2 2017. 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; June 2017)

	Gross exposures	Net exposures	Collateral (2)	Personal guarantees (2)	Coverage ratio for unsecured loans
<b>Firms</b>					
Non-performing customer loans	230	103	112	44	66.1
<i>of which: bad loans</i>	146	46	65	34	80.7
<b>Consumer households</b>					
Non-performing customer loans	50	27	34	2	66.6
<i>of which: bad loans</i>	34	15	23	1	76.1
<b>Total (3)</b>					
Non-performing customer loans	293	136	151	47	65.3
<i>of which: bad loans</i>	185	63	90	36	79.7

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. Provisional data. – (2) The amounts correspond to the gross exposure that is collateralized or backed by personal guarantees. – (3) 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; June 2017)

	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)	120.5	60.6	44.9	192.0	418.1	3.5	2.4	15.8
Other industrialized countries	19.3	21.0	26.9	27.8	95.1	4.6	0.2	3.6
<i>of which:</i> United Kingdom	1.2	11.2	15.7	7.1	35.0	4.0	0.8	1.3
Emerging and developing countries	41.7	23.7	7.1	88.3	160.7	13.6	2.2	6.1
Europe	38.4	14.1	5.8	76.7	135.0	9.1	9.3	5.1
<i>of which:</i> Russia	2.1	2.3	0.3	17.5	22.1	21.3	23.2	0.8
Africa and the Middle East	2.2	1.9	0.8	4.7	9.6	-3.3	2.2	0.4
Asia and Pacific	0.5	4.5	0.4	4.8	10.3	8.5	0.2	0.4
Central and South America	0.6	3.1	0.0	2.1	5.8	3.1	0.6	0.2
Offshore centres	0.2	0.3	2.2	4.7	7.4	-3.4	0.3	0.3
<b>Total</b>	<b>181.7</b>	<b>105.7</b>	<b>81.1</b>	<b>312.8</b>	<b>681.3</b>	<b>4.6</b>	<b>1.0</b>	<b>25.8</b>
<i>Memorandum item:</i>								
Energy-exporting emerging and developing countries	2.4	3.9	1.1	20.2	27.6	15.2	6.3	1.0

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

(1) Exposure to 'ultimate borrowers', gross of bad debts 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. –

(3) Total exposures to residents and non-residents.

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	Stocks	Net purchases	Share of total assets
2011	211,680	18,457	5.6	1,009,414	72,378	3.0
2012	322,687	90,128	8.3	1,251,226	213,410	3.8
2013	374,530	45,312	10.1	1,313,179	46,354	4.3
2014 – Q1	381,775	785	10.2	1,355,157	23,132	4.4
Q2	382,674	-3,298	10.4	1,370,453	3,515	4.5
Q3	378,432	-6,142	10.3	1,378,601	-985	4.4
Q4	382,916	4,124	10.5	1,370,727	-18,872	4.4
2015 – Q1	392,323	2,604	10.6	1,380,572	2,841	4.3
Q2	377,980	-2,877	10.5	1,343,751	-11,320	4.3
Q3	373,775	-8,803	10.5	1,337,991	-13,333	4.3
Q4	363,520	-11,930	10.2	1,295,539	-44,385	4.2
2016 – Jan.	367,862	3,713	10.3	1,326,277	29,820	4.2
Feb.	375,223	8,029	10.4	1,341,614	15,603	4.2
Mar.	365,501	-11,184	10.2	1,328,565	-15,163	4.3
Apr.	370,967	7,221	10.3	1,325,852	268	4.2
May	366,582	-4,808	10.3	1,321,028	-8,061	4.2
June	368,617	1,642	10.2	1,325,190	2,101	4.2
July	367,533	-1,525	10.3	1,309,177	-16,994	4.1
Aug.	359,864	-7,930	10.1	1,284,102	-24,869	4.1
Sept.	352,325	-6,892	9.8	1,257,295	-27,856	4.0
Oct.	346,789	-1,311	9.7	1,245,561	-6,416	4.0
Nov.	338,644	-4,105	9.5	1,232,226	-6,506	3.9
Dec.	332,665	-9,216	9.4	1,205,139	-30,545	3.9
2017 – Jan.	335,618	6,594	9.5	1,198,610	1,473	3.8
Feb.	338,816	2,998	9.6	1,201,719	1,919	3.8
Mar.	348,416	10,295	9.7	1,205,432	4,780	3.8
Apr.	350,997	2,541	9.8	1,201,872	-3,941	3.8
May	342,084	-9,658	9.6	1,194,060	-9,045	3.8
June	322,503	-19,648	9.1	1,159,823	-34,412	3.7
July	326,407	3,643	9.2	1,151,114	-9,224	3.7
Aug.	325,137	-1,365	9.2	1,155,134	2,848	3.7
Sept.	318,918	-6,752	9.1	1,146,104	-6,225	3.7

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.

Table A5

**Italian banks' bonds by holder and maturity (1)**  
(millions of euros; September 2017)

	Maturity					Total
	By 2018	Between 2019 and 2020	Between 2021 and 2022	Between 2023 and 2027	Beyond 2027	
Households (2)	44,043	39,367	18,626	15,452	878	118,366
<i>of which: subordinated bonds</i>	3,097	5,121	3,697	5,428	360	17,703
Banks in the issuer's group (3)	12,234	12,586	10,618	5,731	3,137	44,307
<i>of which: subordinated bonds</i>	167	365	70	441	9	1,053
Other Italian banks	5,595	9,086	3,276	3,101	634	21,692
<i>of which: subordinated bonds</i>	191	204	195	685	19	1,294
Other investors	39,308	51,741	31,658	48,207	7,998	178,913
<i>of which: subordinated bonds</i>	2,591	2,867	2,707	11,829	2,884	22,879
<b>Total</b>	<b>101,180</b>	<b>112,780</b>	<b>64,179</b>	<b>72,491</b>	<b>12,647</b>	<b>363,277</b>
<b><i>of which: subordinated bonds</i></b>	<b>6,046</b>	<b>8,557</b>	<b>6,670</b>	<b>18,383</b>	<b>3,273</b>	<b>42,929</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 (1)**  
*(billions of euros; end-of-period values)*

	2013	2014	2015	2016		2017	
				June	December	June	September
<b>Total</b>	<b>344.8</b>	<b>283.5</b>	<b>253.7</b>	<b>275.6</b>	<b>297.3</b>	<b>332.8</b>	<b>329.1</b>
Government securities	101.4	119.8	97.6	96.0	88.8	125.4	123.3
Local and regional government securities	2.6	2.9	2.6	2.3	1.7	1.8	1.7
Uncovered bank bonds	11.5	10.4	5.8	5.4	5.3	6.2	5.3
Government-guaranteed bank bonds	69.8	15.0	0.4	0.3	0.3	2.5	2.1
Covered bonds	61.5	49.8	46.4	62.7	76.3	74.9	77.5
Non-bank bonds	1.6	1.0	2.5	2.5	3.0	3.4	2.8
Asset-backed securities	50.6	40.0	35.5	36.4	44	45.3	43.3
Other marketable assets	2.3	0.4	0.6	0.5	0.8	2.7	2.9
Non-negotiable assets (bank loans)	43.5	44.3	62.4	69.4	77.1	70.6	70.1

Source: Based on Eurosystem data.

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

Table A7

Net liquidity position (1) (monthly average share of total assets)						
	Significant groups			Less significant groups		
	Cumulative cash flow (2)	Counterbalancing capacity	Liquidity indicator (3)	Cumulative cash flow (2)	Counterbalancing capacity	Liquidity indicator (3)
2015 – Jan.	-3.2	14.6	11.4	-1.4	15.9	14.5
Feb.	-5.1	16.5	11.5	-4.0	18.6	14.6
Mar.	-5.0	16.2	11.2	-2.1	16.7	14.6
Apr.	-4.5	15.5	11.0	-3.2	17.6	14.4
May	-4.4	15.1	10.6	-4.2	18.2	13.9
June	-4.2	14.7	10.5	-3.5	17.3	13.8
July	-3.3	14.4	11.1	-2.7	16.4	13.6
Aug.	-2.4	14.4	11.8	-3.2	18.6	15.5
Sept.	-3.1	14.7	11.5	-4.2	19.9	15.7
Oct.	-2.8	14.7	11.8	-5.1	20.9	15.8
Nov.	-3.0	15.0	12.0	-4.4	19.8	15.4
Dec.	-4.1	15.0	10.9	-5.2	20.3	15.1
2016 – Jan.	-4.6	15.1	10.5	-6.6	21.2	14.6
Feb.	-4.5	14.7	10.3	-6.0	20.4	14.5
Mar.	-4.1	14.8	10.6	-5.4	21.0	15.6
Apr.	-3.9	15.1	11.2	-5.8	21.1	15.3
May	-4.1	15.4	11.4	-5.9	21.3	15.3
June	-3.3	14.8	11.5	-5.6	21.1	15.4
July	-2.6	14.7	12.1	-4.5	20.4	15.9
Aug.	-2.4	15.0	12.6	-4.7	20.8	16.1
Sept.	-2.5	14.9	12.4	-3.9	20.0	16.1
Oct.	-2.4	14.9	12.5	-2.4	19.6	17.2
Nov.	-2.7	15.0	12.3	-3.0	20.4	17.3
Dec.	-3.0	14.4	11.3	-2.5	20.5	18.0
2017 – Jan.	-2.5	13.4	11.0	-2.6	19.7	17.1
Feb.	-2.5	14.0	11.5	-3.4	20.0	16.6
Mar.	-1.6	12.9	11.3	-2.8	19.5	16.7
Apr.	-0.5	12.3	11.8	-3.3	19.6	16.3
May	-0.6	12.9	12.3	-2.7	18.6	16.0
June	-0.5	13.4	12.9	-1.6	17.5	15.9
July	0.0	13.5	13.5	-1.4	17.3	15.9
Aug.	0.0	13.9	13.9	-1.8	17.8	16.0
Sept.	0.6	13.5	14.1	-0.9	17.7	16.7

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.

