



BANCA D'ITALIA
EUROSISTEMA

Financial Stability Report

November 2012

Number

4



BANCA D'ITALIA
EUROSISTEMA

Financial Stability Report

Number 4 November 2012

Other economic publications of the Bank of Italy:

Annual Report

Account of the main developments in the Italian and world economy during the year

Economic Bulletin

A quarterly report on developments in the Italian and world economy

Economic developments in the Italian regions

A series of reports on the regional economies

Working Papers (*Temi di discussione*)

A series of empirical and theoretical papers

Occasional Papers (*Questioni di economia e finanza*)

Miscellaneous studies of issues of special relevance to the Bank of Italy

New research at the Bank of Italy

A newsletter on recent research work and conferences

Economic History Working Papers (*Quaderni di Storia Economica*)

A series of papers on Italian economic history

These publications are available online at www.bancaditalia.it

and in hard copy from the Bank of Italy's library (Biblioteca, Via Nazionale 91, 00184 Rome, Italy)

and at the branches of the Bank.

© Banca d'Italia, 2012

For the hard copy version: registration with the Court of Rome No. 209, 13 May 2010

For the electronic version: registration with the Court of Rome No. 212, 13 May 2010

Director

Fabio Panetta

Editorial committee

Giorgio Albareto, Paolo Angelini, Martina Bignami, Pietro Catte, Alessio De Vincenzo, Antonella Foglia, Andrea Generale, Raffaella Giordano, Giorgio Gobbi, Giuseppe Grande, Claudio Impenna, Aviram Levy, Sergio Nicoletti Altissimi, Francesco Zollino

Contributors

Luca Arciero, Stefania Bacchetta, Laura Bartiloro, Carlo Bertucci, Marcello Bofondi, Pierluigi Bologna, Elisa Brodi, Mauro Bufano, Marianna Caccavaio, Francesco Cannata, Maria Laura Caserta, Laura Cerami, Francesco Ciarniello, Wanda Cornacchia, Giuseppe Della Corte, Pierluigi Dialuce, Giovanni Di Iasio, Fabrizio Fabi, Stefano Federico, Cristina Floccari, Piero Franchini, Giovanni Guazzarotti, Andrea Ianni, Silvia Magri, Juri Marcucci, Katia Mastrodomenico, Giancarlo Mazzoni, Arianna Miglietta, Andrea Nobili, Stefano Nobili, Marcello Pagnini, Giovanni Pepe, Alessandro Picone, Federico Pierobon, Mario Pietruni, Anna Rendina, Marco Rocco, Rosario Romeo, Tiziana Rosolin, Paola Rossi, Giovan Battista Sala, Laura Santuz, Marco Savegnago, Federico Maria Signoretti, Annamaria Taormina, Roberto Tedeschi, Silvia Vori, Andrea Zaghini
Carla Desideri, Roberto Novelli and Fausto Parente (Isvap) contributed to Chapter 3.6.

Valentina Memoli and Rosanna Visca (editorial assistants for the Italian version)

Giuseppe Casubolo and Roberto Marano (charts and figures)

The English edition has been translated from the Italian by the Secretariat to the Governing Board.

Address

Via Nazionale 91, 00184 Rome - Italy

Telephone

+39 0647921

Website

<http://www.bancaditalia.it>

All rights reserved. Reproduction for scholarly and non-commercial use permitted, on condition that the source is cited.

ISSN 2280-7616 (stampa)

ISSN 2280-7624 (online)

Based on data available on 5 November 2012 unless otherwise indicated.

Printed by the Printing and Publishing Division of the Bank of Italy, Rome, November 2012.

CONTENTS

| | |
|--|-----------|
| OVERVIEW | 5 |
| 1 MACROECONOMIC RISKS AND INTERNATIONAL MARKETS | 7 |
| 1.1 The main macroeconomic and financial risks | 7 |
| 1.2 The segmentation of the euro-area banking and government securities markets | 13 |
| 1.3 The real-estate markets | 18 |
| 2 THE FINANCIAL CONDITION OF HOUSEHOLDS AND FIRMS | 22 |
| 2.1 Households | 22 |
| 2.2 Firms | 23 |
| 3 THE BANKING AND FINANCIAL SYSTEM | 26 |
| 3.1 The market's assessment of Italian banks | 26 |
| 3.2 Credit | 27 |
| 3.3 Bank funding, liquidity risk, refinancing risk | 35 |
| 3.4 Interest-rate risk and market risk | 38 |
| 3.5 Banks' capital and profitability | 39 |
| 3.6 Insurance companies | 42 |
| 4 MARKETS, EUROSISTEM REFINANCING AND PAYMENT INFRASTRUCTURES | 46 |
| 4.1 The liquidity market | 46 |
| 4.2 Eurosystem refinancing | 48 |
| 4.3 The government securities market | 50 |
| 4.4 The market in credit default swaps | 55 |

BOXES

| | |
|---|----|
| The dynamic of Italy's public debt | 10 |
| Sovereign spreads and euro reversibility risk | 14 |
| The determinants of house prices in Italy | 20 |
| The cost of bond funding for firms | 24 |
| The transmission of sovereign debt market strains to banks' activity in Italy | 28 |
| Coverage ratios and write-offs | 33 |
| The funding gap of Italian banks | 36 |
| Italian banks' liquidity position and asset encumbrance | 37 |
| The risk-weighted assets of Italian banks | 41 |
| The intraday liquidity risk of banks connected to TARGET2-Banca d'Italia | 47 |
| The efficiency of the secondary market in government securities | 52 |
| Non-residents' demand for Italian government securities | 53 |

SYMBOLS AND CONVENTIONS

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; estimates are in italics
-

OVERVIEW

Europe has averted scenarios of extreme instability ...

In recent months the interventions of the European Central Bank and the measures decided at both European and national level have allayed fears of a devastating crisis in the euro area. Along with some signs that demand in the United States and in the emerging economies is picking up, this has improved conditions in the financial markets.

... but significant risks for financial stability persist

The greatest risk for financial stability in Europe remains the spiral between slow economic growth, the sovereign debt crisis and the state of banking systems. Another threat comes from the segmentation of euro-area banking and financial markets along national lines, primarily as a result of the emergence of fears regarding the reversibility of monetary union. To counter these risks, the Governing Council of the ECB has launched a programme of outright monetary transactions (OMTs) for the purchase of government bonds to restore the proper functioning of the monetary policy transmission mechanism. The full efficacy of these interventions is conditional on further progress in European integration and in the structural reforms under way in several countries.

The Italian economy benefits from the easing of pressures on government securities

Italy has witnessed a decline in the sovereign spread and the return of foreign investors to the government securities market. The weakness of domestic demand is fostering a significant improvement in the external accounts. Notwithstanding the worsening economic picture, budgetary policy remains oriented towards fiscal discipline. Fears about the progress of reform, linked to the uncertainty surrounding future political developments, pose a risk for the cost of the public debt.

The contraction in output and the uncertain prospects for recovery are reflected in property prices

The housing market is weak. Since the end of last year the decline in the number of sales has been accompanied by a moderate fall in prices, due to the contraction in households' disposable income and strained credit supply conditions. There is no evidence of an overvaluation of houses. The fall in prices is expected to continue in the coming months, and it could extend beyond that if the timing of the economic recovery were pushed further back. Possible effects on the quality of bank credit should be modest.

The household sector's financial situation remains balanced ...

The financial situation of households remains balanced overall, thanks to their relatively modest debt and large proportion of financial wealth held in the form of low-risk assets. In the current phase debt service is being kept down principally by low interest rates. The main risk consists in the sluggishness of income.

... but the recession weighs on firms ...

The recession continues to affect the profitability and self-financing capacity of firms, whose financial situation shows signs of strain. Expectations for the coming months have become less pessimistic. The chief risk factors have to do with the performance of the economy and persistent difficulties in accessing credit.

... thereby contributing to the contraction in credit ...

The fall in bank lending reflects the weakness of demand. The attenuation of the strains on bank liquidity can be discerned in a gradual improvement in credit supply conditions, which nevertheless remain more restrictive than in the first half of 2011.

... and to the deterioration in the quality of bank loans

Credit quality continues to show the repercussions of the recession. Non-

performing loans to firms have increased again in all sectors of economic activity, most markedly in construction.

By contrast, the impairment rate on loans to households remains low, reflecting their solid financial position, traditionally prudent lending standards and a legislative and regulatory framework that encourages limiting loan-to-value ratios and requires the borrower to repay his debt, regardless of any change in the value of the property.

The Bank of Italy intensifies its assessment of the adequacy of loss provisions

Banks have increased their provisions for credit risk, which have nevertheless declined as a ratio to the total amount of impaired loans. The Bank of Italy is intensifying its assessment of the adequacy of provisions, taking into account both aggregate variables (average system-wide values, the economic outlook) and individual variables. Banks with inadequate coverage ratios are required to take prompt corrective measures.

Retail funding grows, the liquidity position improves and capital strengthening continues ...

Banks' retail funding continues to grow; the funding gap (the difference between lending and retail funding) has narrowed to 16 per cent and to 13 per cent excluding foreign banks' subsidiaries. Banks' liquidity position has improved markedly since July, with the easing of sovereign debt risk. Several banking groups have resumed issues on the wholesale markets; recourse to Eurosystem refinancing has levelled off. Italian banks hold the necessary liquid resources to cover liabilities falling due and to finance the economy; collateral also remains ample.

The core tier 1 ratio of the main Italian groups has risen further, to 10.2 per cent. Capital strengthening is a response to the deterioration in the economy. The financial leverage of Italian

banks remains low by comparison with the main European banking groups.

... but the earnings outlook remains uncertain

Banks' profitability continues to be dampened by the deteriorating quality of credit. Banks must continue, and intensify, their cost-cutting policies.

The financial situation of insurance companies is sound

The main Italian insurance companies recorded an increase in profits, due mainly to the positive results on financial activity. The solvency indicators for life and non-life insurance are well above the regulatory requirements. Overall, the greatest risks to the sector come from the protracted economic downturn, which is depressing growth in premiums and increasing policy surrenders, and from the conditions of uncertainty on financial markets, given insurers' substantial government securities portfolio.

Money market activity remains concentrated in the collateralized segments

Trading on the Italian interbank market remains concentrated in the collateralized segments. The liquidity position is gradually improving; cost conditions are in line with those in markets abroad.

The government securities market shows signs of improvement

Government securities issuance has proceeded regularly, even at the times of greatest tension. The resumption of purchases by foreign investors in recent months has followed the considerable decline in rates on new issues. The average residual life of the public debt is still long compared with the main sovereign issuers in the euro area. The liquidity of the secondary market in government securities has improved further. The amount of medium- and long-term securities maturing in 2013 will be less than in 2012 and will be distributed more evenly throughout the year.

1 MACROECONOMIC RISKS AND INTERNATIONAL MARKETS

1.1 THE MAIN MACROECONOMIC AND FINANCIAL RISKS

The euro area shows new signs of weakness ...

The euro-area economy shows new signs of weakness, with performances diverging among countries. Domestic demand is affected by the protracted uncertainty regarding the outlook for the sovereign debt crisis, as well as by the restrictive public finance measures adopted in several countries. The worsening of growth prospects in the other main economies has also taken its toll (Figure 1.1; see *Economic Bulletin*, October 2012). Only recently have signs appeared of a strengthening in the United States and in emerging economies.

... but the sovereign debt crisis eases thanks to the ECB's action ...

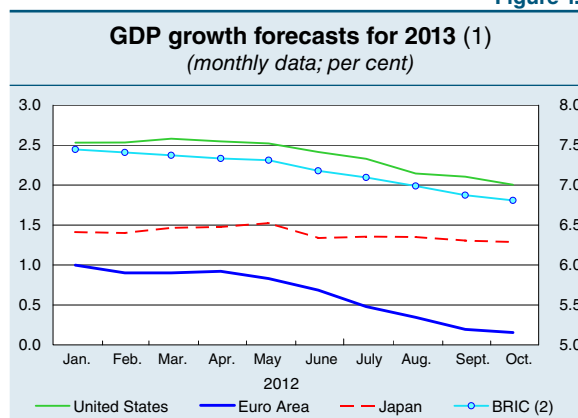
To support growth the central banks of the United States, United Kingdom and Japan have announced further unconventional

monetary policy measures. In August, the ECB Governing Council launched a programme of government securities purchases, called Outright Monetary Transactions, to restore the correct transmission of monetary policy. The announcement dispelled fears of tail risk events; in the countries most severely affected by the crisis, it coincided with a marked decrease in the risk premiums on sovereign and bank securities (Figure 1.2.a) and with an easing of fears of contagion (Figure 1.2.b). This has helped Italian and Spanish banks to resume issuance of unsecured bonds on international markets (Figure 1.2.c).

... progress in policies at European level ...

Tensions in the euro area have been contained in part thanks to the decisions taken by the European Council at its meetings on 28-29 June and 18-19 October. These decisions represent a clear move towards full financial integration via rapid transition to a single bank supervisory system, accompanied by European-level bank resolution and deposit guarantee schemes. They envisage closer integration of economic and budgetary policies and enhanced democratic legitimacy of decision-making processes. In particular, the Council called on legislators to introduce the Single Supervisory Mechanism without delay in order to break the vicious circle between banks and sovereign debt, with the objective of agreeing on the legislative framework by 1 January 2013. The operational details will be finalized during the course of next year. Direct bank recapitalizations via the European Stability Mechanism will be possible once the SSM is in place. On 20 July the euro-area finance ministers approved a financial assistance plan (up to €100 billion) to recapitalize and restructure Spain's banking system. The ESM became operational in October after the treaty instituting it was ratified by Germany with the approval of the Constitutional Court.

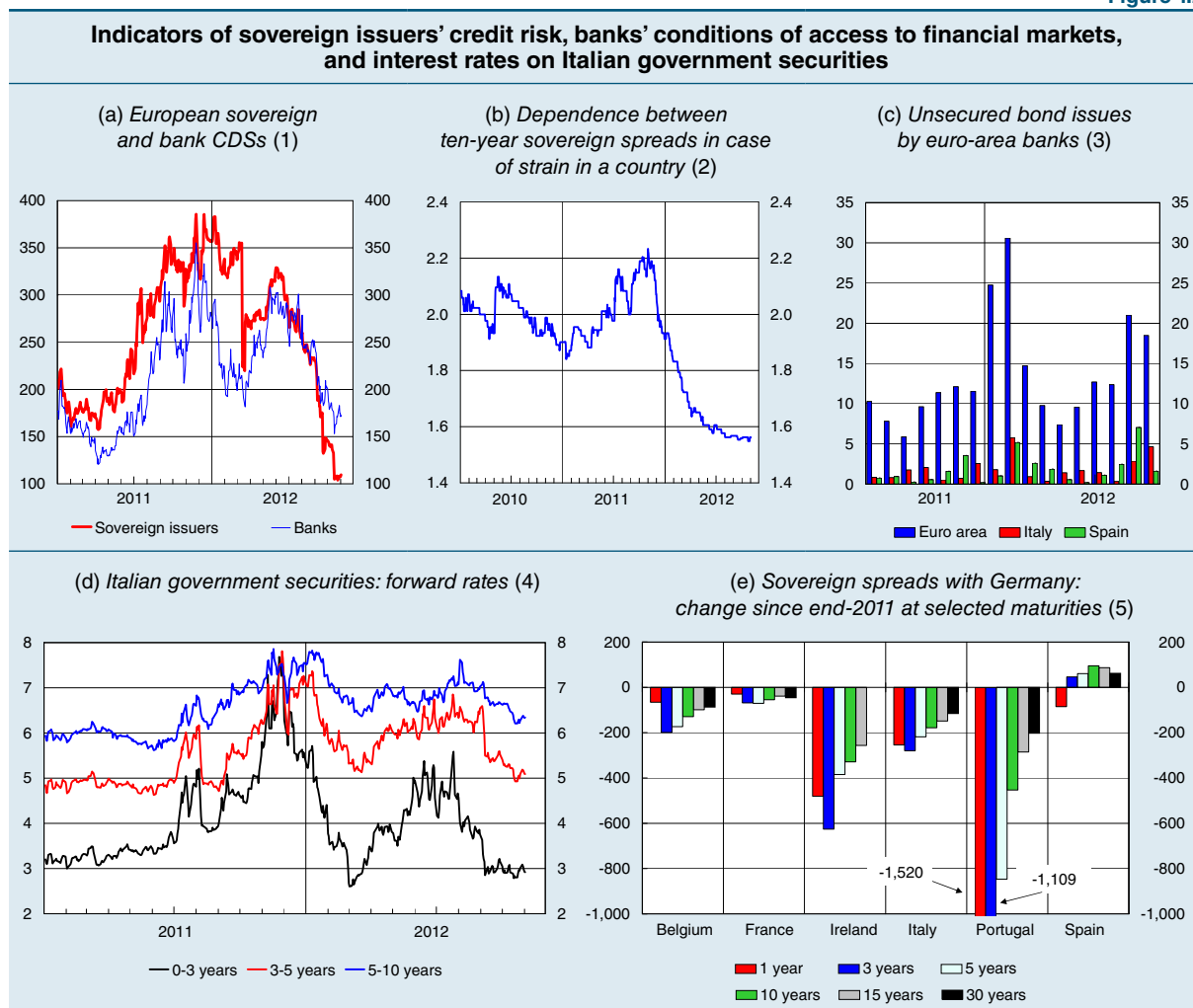
Figure 1.1



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 2010 at purchasing power parity.

Figure 1.2



Sources: Based on Bloomberg, Dealogic and Thomson Reuters Datastream data.

(1) Basis points. iTraxx indices for baskets of CDSs on sovereign issuers and financial issuers (mainly banks). The downward spike in the index for sovereign issuers in March 2012 was due to the dropping of Greece's CDSs from the basket. – (2) Number of countries, of the seven considered. The indicator is based on interest-rate spreads vis-à-vis Germany (for the ten-year maturity) of seven euro-area countries (Belgium, France, Greece, Ireland, Italy, Portugal and Spain). Its value is the expected number of countries that would register an increase in the spread greater than the 95th percentile of its distribution (estimated on the two previous years) if an increase in the spread of that magnitude occurred in at least one of the countries considered. – (3) Monthly data in billions of euros. Bonds not backed by collateral or government guarantees. – (4) Daily data, per cent. Interest rates implied by the zero-coupon curve of Italian government securities at the three-year spot maturity and at the two-year and five-year forward maturities starting, respectively, three and five years forward. – (5) Changes in the interest rate spreads with Germany between the end of 2011 and 2 November 2012, in basis points. For Ireland the data for the 30-year maturity are not available.

... and the progress made at national level

In Italy the deterioration in the macroeconomic situation has affected the public finances. The Government has confirmed its commitment to bring the deficit back down to under 3 per cent of GDP in 2012, which would qualify Italy, next year, as one of the few countries not subject to an Excessive Deficit Procedure. Budget policy for the three years 2013-15 continues to focus on consolidating the public finances. More specifically, the Government's target for 2013 is to reduce net borrowing to 1.8 per cent of GDP and achieve structural balance; the estimates published by the European Commission at the beginning of November (Table 1.1) place it slightly higher, at 2.1 per cent of GDP and 0.4 per cent in structural terms. The decline in the yields, both spot and forward, on Italian government securities (Figure 1.2.d), the narrowing of the sovereign spread with respect to Germany (Figure 1.2.e) and the resumption of non-residents' purchases of government securities (see the box "Non-residents' demand for Italian government securities") point to renewed confidence in the sustainability of Italy's public finances. Nonetheless, the outlook for the debt

is still clouded by weak economic growth, as well as by persistently high borrowing costs; outlays to support countries in difficulty also weigh heavily (see the box “The dynamic of Italy’s public debt” and *Economic Bulletin*, October 2012).

Table 1.1

| Financial sustainability indicators (per cent of GDP, except as specified) | | | | | | | | | | | | |
|---|--------------------|------|------|---------------------|------|------|-----------------|-------|-------|------------------------------|------|------|
| | Budget deficit (1) | | | Primary surplus (1) | | | Public debt (1) | | | GDP (annual growth rate) (2) | | |
| | 2011 | 2012 | 2013 | 2011 | 2012 | 2013 | 2011 | 2012 | 2013 | 2011 | 2012 | 2013 |
| Italy | 3.9 | 2.9 | 2.1 | 1.0 | 2.6 | 3.5 | 120.7 | 126.5 | 127.6 | 0.4 | -2.3 | -0.5 |
| Germany | 0.8 | 0.2 | 0.2 | 1.8 | 2.3 | 2.2 | 80.5 | 81.7 | 80.8 | 3.0 | 0.8 | 0.8 |
| France | 5.2 | 4.5 | 3.5 | -2.6 | -1.9 | -1.0 | 86.0 | 90.0 | 92.7 | 1.7 | 0.2 | 0.4 |
| Spain | 9.4 | 8.0 | 6.0 | -7.0 | -5.0 | -2.2 | 69.3 | 86.1 | 92.7 | 0.4 | -1.4 | -1.4 |
| Netherlands | 4.5 | 3.7 | 2.9 | -2.4 | -1.7 | -0.8 | 65.5 | 68.8 | 69.3 | 1.0 | -0.3 | 0.3 |
| Belgium | 3.7 | 3.0 | 3.4 | -0.4 | 0.5 | 0.0 | 97.8 | 99.9 | 100.5 | 1.8 | -0.2 | 0.7 |
| Austria | 2.5 | 3.2 | 2.7 | 0.1 | -0.5 | 0.0 | 72.4 | 74.6 | 75.9 | 2.7 | 0.8 | 0.9 |
| Finland | 0.6 | 1.8 | 1.2 | 0.5 | -0.7 | -0.1 | 49.0 | 53.1 | 54.7 | 2.7 | 0.1 | 0.8 |
| Greece | 9.4 | 6.8 | 5.5 | -2.3 | -1.4 | 0.0 | 170.6 | 176.7 | 188.4 | -7.1 | -6.0 | -4.2 |
| Portugal | 4.4 | 5.0 | 4.5 | -0.4 | -0.5 | 0.2 | 108.1 | 119.1 | 123.5 | -1.7 | -3.0 | -1.0 |
| Ireland | 13.4 | 8.4 | 7.5 | -10.0 | -4.4 | -1.9 | 106.4 | 117.6 | 122.5 | 1.4 | 0.4 | 1.1 |
| Euro area | 4.1 | 3.3 | 2.6 | -1.1 | -0.2 | 0.6 | 88.1 | 92.9 | 94.5 | 1.4 | -0.4 | 0.1 |
| United Kingdom | 7.8 | 6.2 | 7.2 | -4.6 | -3.0 | -3.9 | 85.0 | 88.7 | 93.2 | 0.9 | -0.3 | 0.9 |
| United States | 10.1 | 8.7 | 7.3 | -7.8 | -6.5 | -5.1 | 102.9 | 107.2 | 111.7 | 1.8 | 2.2 | 2.1 |
| Japan | 9.8 | 10.0 | 9.1 | -8.9 | -9.0 | -7.9 | 229.6 | 236.6 | 245.0 | -0.8 | 2.2 | 1.2 |
| Canada | 4.4 | 3.8 | 3.0 | -3.9 | -3.2 | -2.7 | 85.4 | 87.5 | 87.8 | 2.4 | 1.9 | 2.0 |

| | Characteristics of public debt (3) | | | Sustainability indicators | | Private sector debt at Q1 2012 | | External positions at end-2011 | |
|----------------|-------------------------------------|--|--|---------------------------|-------------------|--------------------------------|---------------------|--------------------------------|--|
| | Share maturing plus deficit in 2012 | Avg residual life of govt securities in 2012 (yrs) | Non-residents' share in 2012 (% public debt) | S2 indicator (4) | IMF indicator (5) | Households | Non-financial firms | Current account balance | Net inter-national investment position |
| Italy | 30.1 | 6.6 | 35.2 | -2.8 | 4.6 | 45.2 | 82.7 | -3.1 | -20.6 |
| Germany | 8.5 | 6.5 | 61.7 | 1.8 | 3.0 | 58.8 | 68.5 | 5.7 | 32.6 |
| France | 18.5 | 6.9 | 64.1 | 2.2 | 7.4 | 56.8 | 105.0 | -2.0 | -15.9 |
| Spain | 22.6 | 5.7 | 28.0 | 4.3 | 12.7 | 81.1 | 135.3 | -3.5 | -91.7 |
| Netherlands | 14.1 | 6.8 | 56.0 | 7.9 | 9.5 | 127.3 | 95.1 | 9.7 | 35.5 |
| Belgium | 19.4 | 6.7 | 57.9 | 7.5 | 10.1 | 54.4 | 182.9 | -1.4 | 65.7 |
| Austria | 8.5 | 7.7 | 83.0 | 3.7 | 5.9 | 54.6 | 106.9 | 0.6 | -2.3 |
| Finland | 8.6 | 6.0 | 90.6 | 4.9 | 3.2 | 63.1 | 116.7 | -1.6 | 13.1 |
| Greece | 28.9 | 11.1 | 55.9 | 2.1 | 13.9 | 61.2 | 63.3 | -9.9 | -86.1 |
| Portugal | 27.4 | 5.7 | 54.2 | -1.2 | 10.4 | 91.3 | 156.7 | -6.5 | -105.0 |
| Ireland | 15.9 | 6.4 | 60.5 | 6.7 | 12.9 | 112.7 | 219.1 | 1.1 | -96.0 |
| Euro area | | | | 2.4 | | 65.5 | 101.2 | 0.0 | -11.5 |
| United Kingdom | 15.1 | 14.4 | 31.1 | 5.2 | 13.1 | 95.3 | 111.6 | -1.9 | -17.3 |
| United States | 26.3 | 5.4 | 30.2 | | 19.6 | 84.4 | 77.9 | -3.1 | -26.7 |
| Japan | 59.4 | 6.0 | 7.5 | | 21.1 | 66.8 | 100.1 | 2.0 | 54.0 |
| Canada | 16.5 | 5.1 | 20.9 | | 8.2 | 92.7 | 50.8 | -2.8 | -12.4 |

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

(1) Data for European countries and the euro area are from European Commission, *European Economic Forecast Autumn 2012*, November 2012. The data for non-European countries are from IMF *Fiscal Monitor*, October 2012. – (2) Data for European countries and the euro area are from European Commission, *European Economic Forecast Autumn 2012*, November 2012. The data for non-European countries are from IMF *World Economic Outlook*, October 2012. – (3) Data from IMF *Fiscal Monitor*, October 2012. – (4) Increase in the primary surplus/GDP ratio (with respect to 2011) needed to satisfy the general government intertemporal budget constraint, given demographic and macroeconomic projections. The estimate takes account of the level of the debt, the outlook for economic growth, changes in interest rates and future primary surpluses, which are affected by the trend of age-related expenditure. The data are taken from the European Commission's assessments of the stability and convergence programmes presented in 2012. – (5) Increase in the primary surplus/GDP ratio that would need to be achieved by 2020 (and maintained for a further decade) in order to bring the debt/GDP ratio down to 60 per cent by 2030. The value includes the projected increase in health and pension expenditure between 2011 and 2030.

Current account balances show a marked improvement in some euro-area countries, among which Italy

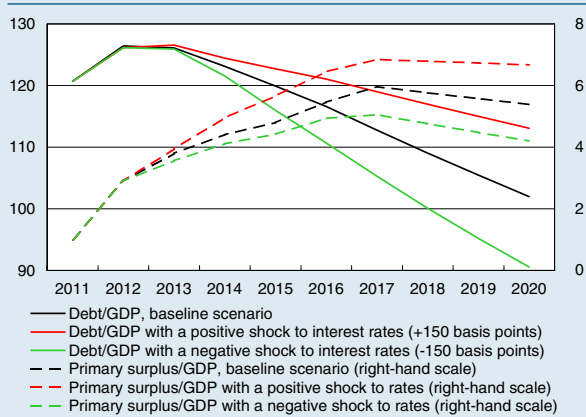
Cyclical slowdown, measures to consolidate the public finances and structural reforms are causing a substantial adjustment of external imbalances in some euro-area countries. In Italy, in the twelve months to August the balance-of-payments deficit on current account decreased to 1.5 per cent of GDP, less than half the year-earlier value. The merchandise balance moved back into surplus, and external financial liabilities, and in many sectors also assets, diminished.

THE DYNAMIC OF ITALY'S PUBLIC DEBT

Accounting exercises that examine the dynamic of the public debt under alternative scenarios for interest rates show that maintaining structural budget balance would ensure an appreciable reduction of Italy's debt-to-GDP ratio even if yields at issue proved to be significantly less favourable than expected. As a baseline scenario we take the Government's September 2012 forecasts for debt and economic growth through 2015, which take into account a substantially worse macroeconomic environment than that of April.¹ For later years we hypothesize maintenance of structural budget balance, assuming that the average cost of the debt and GDP growth remain constant at their 2015 levels. In this scenario the debt-to-GDP ratio, equal to 126.4 per cent in 2012, comes down slightly in 2013, drops below 120 per cent in 2015 and falls to 102 per cent in 2020 (see figure); the primary surplus ensuring budget balance rises to 6 per cent of GDP in 2017 and then falls back to 5.4 per cent in 2020.

To assess the impact of a shock to financing costs, under a first alternative scenario we hypothesize that starting from January 2013 the interest rates on newly issued long-term government securities are 1.5 percentage points higher than the Government's forecasts (the yield spread between ten-year Italian and German securities rises to 500 basis points) and that this adversely affects GDP.² In a second alternative scenario, symmetrical to the first, a reduction of 1.5 percentage

Public debt and primary budget surplus as per cent of GDP, various forecasting scenarios



Sources: *Economic and Financial Document* update and our calculations.

¹ *Economic and Financial Document* 2012 update. The growth rate, negative in both 2012 and 2013 (-2.4 and -0.2 per cent respectively) is projected to turn positive, rising to 1.1 per cent in 2014 and 1.3 per cent in 2015. Other factors affecting the debt-to-GDP ratio are the average interest cost of the debt, the primary surplus and possible proceeds from the sale of state assets. The average interest cost of the debt is forecast to increase from 4.5 per cent in 2012 to 5.1 per cent in 2015; this trend is consistent with a yield spread of about 350 basis points between Italian and German ten-year government securities. The primary surplus, rising from 2.9 per cent of GDP in 2012 to 4.8 per cent in 2015, would allow a reduction in net borrowing from 2.6 per cent of GDP in 2012 to 1.8 per cent in 2013 and 1.3 per cent in 2015 and the achievement of a structural budget position close to balance as early as 2013. Finally, proceeds from asset sales are assumed to amount to 0.6 per cent of GDP in 2012 and to about 1.0 per cent in each of the three years from 2013 to 2015.

² We hypothesize that the increase in the one-year spread is equal to half that of the ten-year spread. Our estimations indicate that an increase of 100 basis points in the ten-year spread and 50 basis points in the one-year spread reduces GDP growth by a total of about one percentage point in three years and increases the average interest cost of the debt by 0.1 percentage points in the first year, 0.2 points in the second and 0.3 points in the third.

points in interest rates takes the yield spread to 200 basis points, a level that various analyses show to be consistent with the Italian economy's fundamentals (see the box "Sovereign spreads and euro reversibility risk").

The results indicate that even in the adverse scenario the debt-to-GDP ratio continues to fall, albeit more slowly (to 113 per cent in 2020); however, budget balance requires an increasing primary surplus, reaching 7 per cent of GDP in 2017. In the second scenario, the public debt falls below 110 per cent of GDP in five years and to 90 per cent in 2020; the primary surplus needed to maintain budget balance diminishes at the end of the forecasting period to 4 per cent of GDP (a little higher than the average for the 15 years preceding the crisis). The reduction in the debt-to-GDP ratio would be slightly greater (3 points of GDP) if the primary surplus were held constant at the level forecast for 2015.

The risks are still considerable ...

Despite the progress made at European level and the easing of fears of extreme events, international financial conditions remain fragile. The main risk for financial stability in Europe and Italy is the spiral of slow economic growth, sovereign debt crisis and the state of the banking system. Several factors could play a role in aggravating it.

... owing to uncertainty over the outlook for growth ...

The mild economic recovery projected for Europe in 2013 could be jeopardized by cyclical factors at international level. In the United States, unless the political parties agree on amending current legislation, the beginning of 2013 will see expenditure cuts and the expiry of substantial tax reductions; the resulting fiscal cliff, of the order of 4 per cent of GDP, could propel the US economy into recession, with global repercussions. The cyclical slowdown in the emerging economies could turn out to be more protracted than forecast at present. Oil prices could be forced up by geopolitical tensions despite globally weak demand.

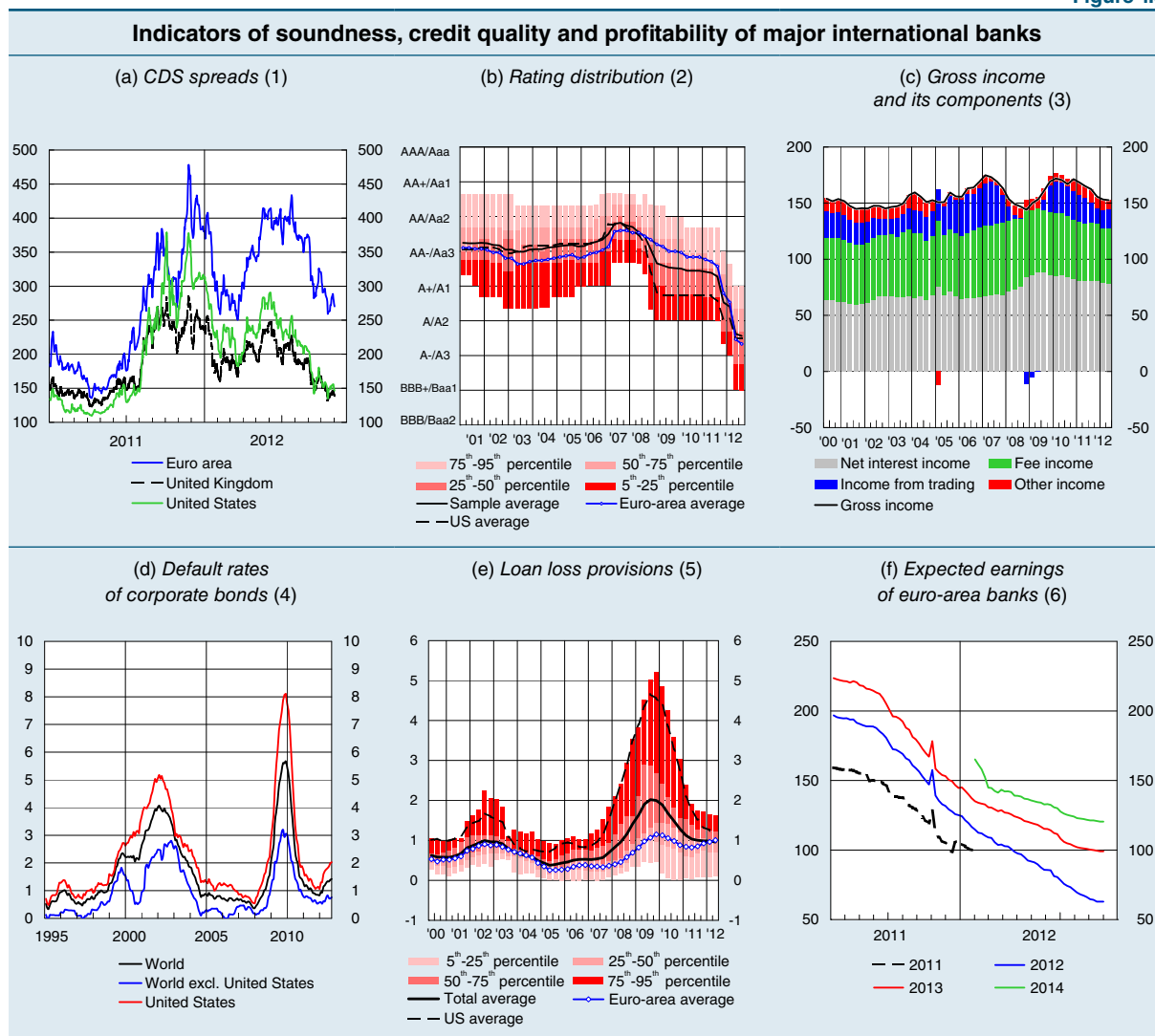
... fears about the resilience of the single currency ...

If they persist, the exceptionally large sovereign spreads registered in several countries due to fears of euro reversibility (see the box "Sovereign spreads and euro reversibility risk") will have a dampening effect on growth. We estimate that a 100 basis point increase in the spread on ten-year Italian sovereign bonds with respect to the German equivalent and a 50 basis point increase in that on one-year bonds would cut GDP growth in Italy by almost 0.3 percentage points in each of the next two years. To overcome this risk, action to consolidate Italy's public finances and structural reforms to raise its growth potential must be pursued resolutely at national level; at European level the process of integration outlined in June and reaffirmed in October must be undertaken without delay.

... and the fragility of European banks

Further risks for financial stability in the euro area come from the banks, still affected by deteriorating asset quality, low profitability and difficulty raising equity finance, with repercussions on the supply of credit. Although there have been improvements recently, in several countries strains on the government securities market continue to condition the banks' ability to raise funds on the markets (see the box "The impact of sovereign risk on banks' funding", *Financial Stability Report*, No. 2, November 2011). The average CDS spread for euro-area banks is about twice that for US and UK banks (Figure 1.3.a). The banks' funding ability is also constrained in some countries (though not in Italy) by the shortage of collateral that has affected the global financial system in recent years. Another factor is the risk of further downgradings of banks and sovereign issuers after those of 2012 (Figure 1.3.b).

Figure 1.3



Sources: Based on Bloomberg, I/B/E/S, Moody's and Thomson Reuters Datastream data.

(1) Daily data, basis points. – (2) End-of-period quarterly data. Quarterly changes in the distribution of the ratings of major international banks; the rating of each bank is calculated as the average of the ratings given by the three main agencies (Moody's, Standard & Poor's and Fitch). The different shades of red correspond to differences between the percentiles shown in the legend. Sample of major international banks comprising large US and European institutions that engage in various kinds of banking activity, including at international level: Banco Santander, Bank of America, Barclays, BBVA, BNP Paribas, Citigroup, Crédit Agricole, Credit Suisse, Commerzbank, Deutsche Bank, Goldman Sachs, HSBC, ING, Intesa Sanpaolo, JPMorgan Chase, Lloyds Banking Group, Morgan Stanley, Royal Bank of Scotland, Société Générale, UBS, UniCredit and Wells Fargo. – (3) Quarterly data, per cent. The line represents the average value, for the banks in the sample, of the ratio between gross income and operating costs in the same quarter. For each quarter, the histogram shows the contribution of the various components of gross income to that ratio. The data refer to the sample of major banks listed in note 2. – (4) Monthly data, per cent. – (5) Quarterly data. Four-quarter moving sum of provisions expressed as a percentage of total loans. The different shades of red correspond to differences between the percentiles shown in the legend. The data refer to the sample of major banks listed in note 2. – (6) Weekly data. Indices, last forecast for 2011=100.

**Credit quality
deteriorates and
capital strengthening
remains costly ...**

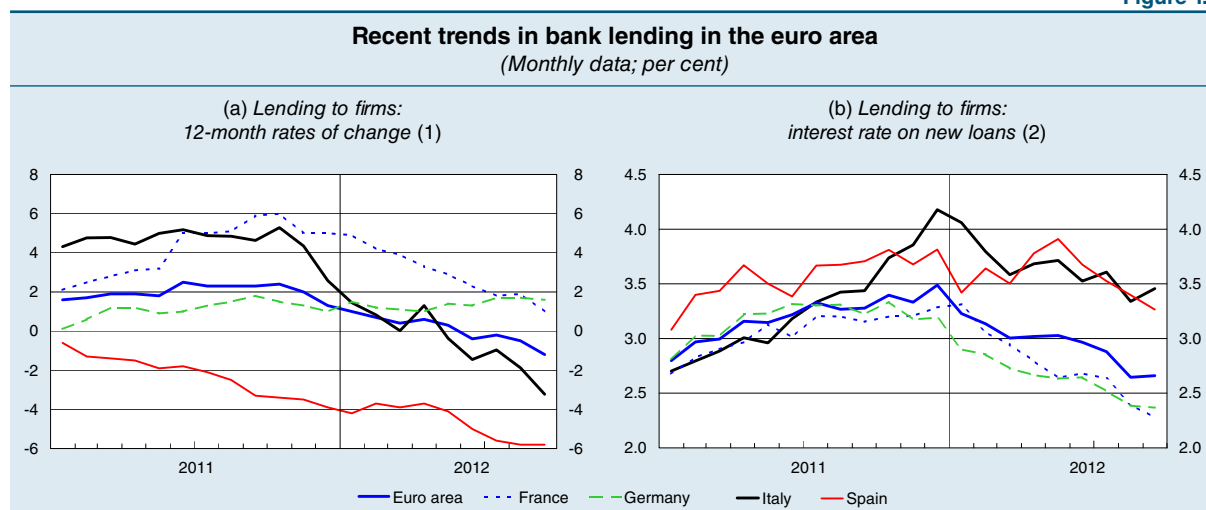
The deterioration in the economic outlook will probably continue to weigh on the net interest income of European banks (Figure 1.3.c) and raise the default rate among firms (Figure 1.3.d), making it necessary to set aside substantial loan loss provisions (Figure 1.3.e). The likelihood of this is borne out by the progressive lowering of expectations for bank profits; financial analysts currently estimate these will not pick up with respect to last year's levels until 2014 (Figure 1.3.f). Moreover, the still high cost of equity capital discourages further capital strengthening. Such measures, which in the past were the main way banks reduced their leverage (in many foreign countries this took the form of massive

injections of public funds), could help the banks to minimize the impact of a deterioration in customers' credit ratings on the supply of loans.

... accentuating the risk of a credit supply tightening, particularly in the most vulnerable economies

These factors are putting considerable pressure on bank balance sheets, weighing on the supply of credit to the economy. In the euro area the growth in lending to firms slowed between November 2011 and May this year before contracting slightly in the summer (Figure 1.4.a). This trend reflects, to some extent, the weakness of demand, which has contributed to the simultaneous drop in interest rates on new loans (Figure 1.4.b).

Figure 1.4



Sources: Based on Bank of Italy and ECB data.

(1) Loans are adjusted for the accounting effect of securitizations. – (2) The data on interest rates refer to transactions in euros and are gathered and processed using the Eurosystem's harmonized methodology.

1.2 THE SEGMENTATION OF THE EURO-AREA BANKING AND GOVERNMENT SECURITIES MARKETS

In the last few years the process of financial integration in the euro area has come to a halt; member states' banking and financial systems have evolved along divergent lines, owing to the heterogeneous performance of the underlying macroeconomic variables and, from the summer of 2011 onwards, to the emergence of systemic risks, as well as to the measures implemented by some supervisory authorities. The inefficient allocation of resources we are witnessing in this phase undermines financial stability both in the countries that are recording very large capital inflows – with significant risks of overvaluation of financial and real assets – and in those hit by capital outflows, where the shortage of financing can have a negative impact on economic activity and banks.

The dispersion of bank interest rates increases in the euro area ...

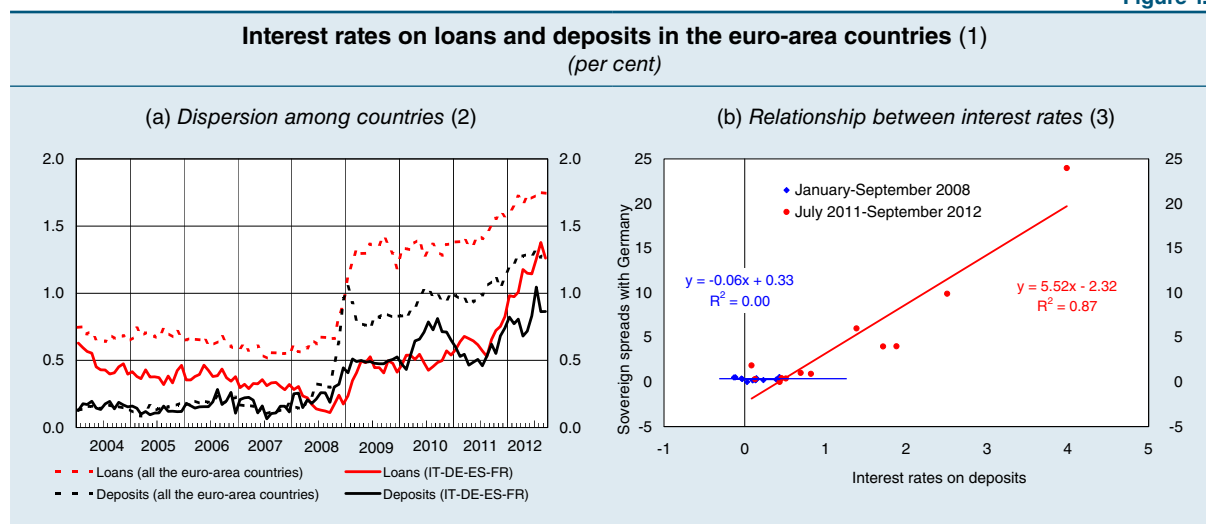
After the collapse of Lehman Brothers the interest rates applied within the monetary union started to diverge, including among the four leading economies in the area. The divergences became more pronounced from the summer of 2011 onwards, as the sovereign debt tensions grew more acute (Figure 1.5.a), when the bank interest rates of several countries ceased to be closely linked with the monetary policy reference rates.

... owing both to differences in the fundamentals and to systemic factors

Bank lending rates have reflected their traditional determinants, such as the cost of funding, output growth and the level of sovereign risk premiums. In the most recent period the latter have been influenced, however, not only by the state of the public finances of the various countries but also by the emergence of systemic risks and the

danger of contagion between financial systems (in particular, the so-called reversibility risk; see the box “Sovereign spreads and euro reversibility risk”). Through the channel of sovereign risk, the systemic factors have affected bank interest rates, thereby increasing their dispersion across countries. This tendency has affected not only bank lending rates but also retail deposit rates (Figure 1.5.b), which benefit from both implicit and explicit forms of public guarantee and which, in the absence of risks for the overall stability of the system, should therefore show similar patterns across the countries of a given currency area.

Figure 1.5



Source: Based on ECB data.

(1) Loans: rates on new loans to firms of up to €1 million and with maturities of up to one year. Deposits: rates on new deposits by firms and households with agreed maturities of up to one year. Monthly data referring to transactions in euros, collected and compiled according to the Eurosystem's harmonized methodology. – (2) Standard deviation of the interest rates of the countries indicated in the legend. Country codes: IT = Italy; DE = Germany; ES = Spain; FR = France. – (3) Each point on the graph represents, for each of the twelve largest economies of the area, the yield spread between ten-year government securities and the German Bund and the differential between the interest rate on deposits of firms and households and the Eonia rate, calculated as the average for the period specified in the legend.

SOVEREIGN SPREADS AND EURO REVERSIBILITY RISK

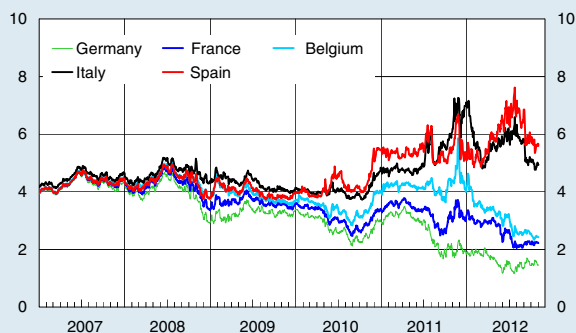
From the start of the financial crisis in the euro area both the dispersion of government bond yields and interest rate spreads with Germany have increased significantly (see figure, panel a); since the summer of 2011 the widening of spreads has involved Italy and Spain in particular. These trends primarily reflect the changing outlook for growth and the public finances. However, there is ample evidence that in some cases sovereign risk premiums have reached levels not justified by national economic fundamentals. For Italy, the ten-year interest rate spread with Germany that would be consistent with the state of the economy can be estimated at 200 basis points, against a market spread that now stands at around 350 basis points and that in mid-2012 had gone as high as 450 basis points; similar disparities are found for medium-term maturities.¹ For Germany and the other countries not directly exposed to the tensions, yields on government securities tend, instead, to be below the levels consistent with economic fundamentals.

The excessively high level of market yields for the weaker countries of the euro area and the excessively low yields for the sounder ones signal fears of a break-up of the Monetary Union (so-called euro reversibility risk), which would presumably result in currency depreciation for the former and appreciation for the latter. This hypothesis is supported by qualitative evidence: surveys of financial

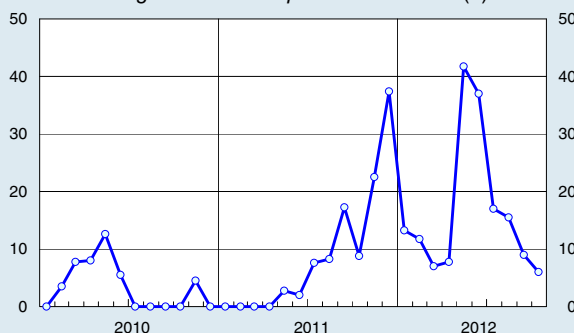
¹ See A. Di Cesare, G. Grande, M. Manna and M. Taboga, “Recent estimates of sovereign risk premia for euro-area countries”, Banca d'Italia, *Occasional Papers*, No. 128, 2012.

Fears of euro reversibility: financial indicators and Internet search indicators

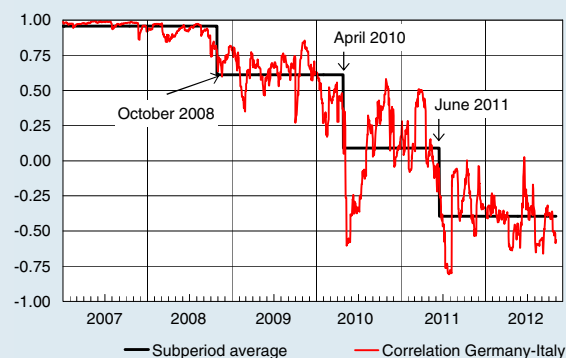
(a) Yields on benchmark ten-year government bonds (1)



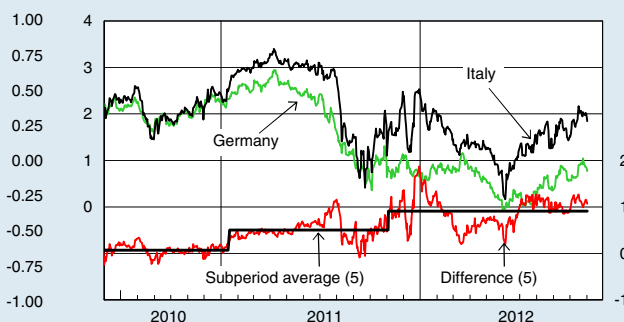
(b) Internet search frequency of keywords relating to the break-up of the euro area (2)



(c) Correlation between German and Italian ten-year benchmark yields (3)



(d) Differentials between government bond yields and sovereign CDS spreads (4)



Sources: Based on Bloomberg, Google and Thomson Reuters Datastream data.

(1) Daily data, per cent. – (2) Monthly average of weekly data. Indicator of frequency of keywords relating to the risk of euro-area break-up (“end of euro”, “end of the euro”, “euro break-up”, “euro break up”, “euro breakup” and “euro exit”) inserted in Google’s search engine. The data were downloaded on 5 November 2012. – (3) Daily data. Correlation, calculated on the basis of a GARCH (1,1) statistical model, between the daily variations in the yields of German and Italian ten-year government securities. The number and length of the subperiods are determined using the Bai and Perron test (“Estimating and testing linear models with multiple structural changes”, *Econometrica*, 66, 1, 1998, pp. 47-78) of multiple structural breaks. – (4) Daily data, per cent. For Italy and Germany, differential between the benchmark ten-year government bond yield and the ten-year sovereign CDS spread. The red curve traces the difference between the two countries’ differentials (the subperiod average is calculated on the basis of multiple structural breaks à la Bai and Perron mentioned in note 3. – (5) Right-hand scale.

market participants,² media reports that some intermediaries are preparing contingency plans to mitigate the possible effects on their balance sheets of a country’s exiting the Monetary Union, and the sharp increase, from the summer of 2011 onwards, in Internet searches using keywords relating to the end of the euro (see figure, panel b). Indicators based on financial asset prices offer further corroborating evidence. Since June 2011 the average correlation between German and Italian ten-year government bond yields has been stably negative (see figure, panel c). Since March 2012 Belgian government bond yields, whose behaviour had been similar to that of Italian and Spanish yields, have approached French and German levels, thereby forming a cluster along economic and geographical lines similar to the one that existed prior to the introduction of the euro. An additional indication comes from the differential between government securities yields and sovereign CDS spreads, which should mainly reflect factors other than credit risk: since March 2012 the differential for Italy has diverged from that for Germany, stabilizing at significantly higher values (see figure, panel d).

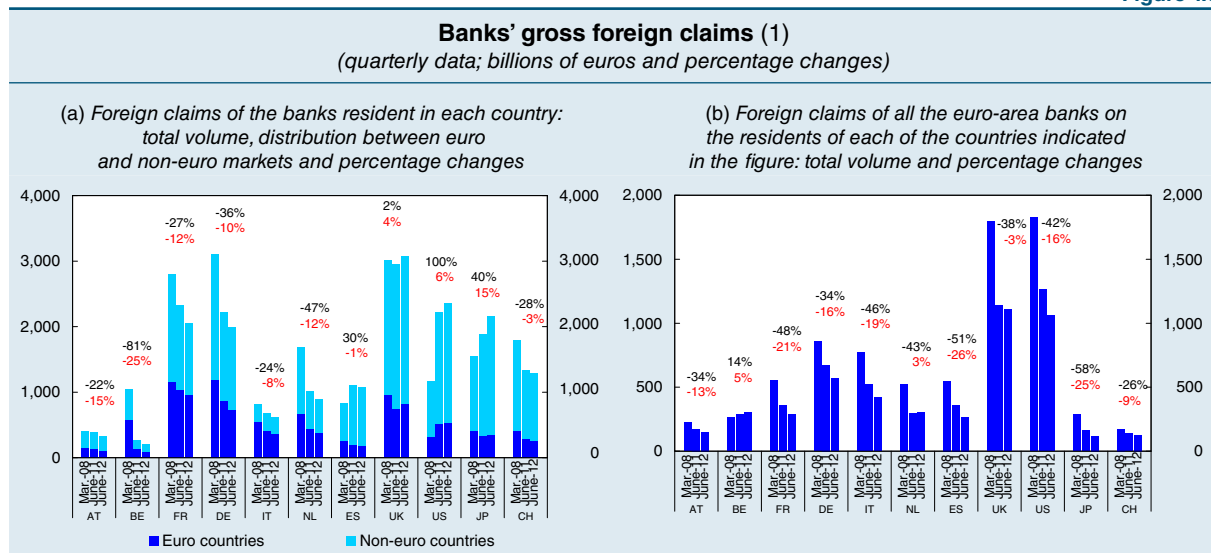
² A survey of central banks’ managers of official reserves, conducted in June 2012 by a private bank, found that the greatest perceived risk for the world economy consisted in the break-up of the euro area.

The need to throttle expectations of euro-area break-up and preserve the correct working of the transmission of monetary policy prompted the Governing Council of the ECB to announce new modalities of intervention on the government securities market at the beginning of August (see the box “The European Central Bank’s Outright Monetary Transactions”, *Economic Bulletin*, October 2012).

Foreign claims diminish just for the banks of the euro-area countries

The financial segmentation of the euro area is also signalled by the sharp contraction in the consolidated gross foreign claims of the banks in the leading member states, including those in countries with sounder public finances (Figure 1.6.a). The Spanish banking system is an exception in this respect since the fall in foreign claims on the euro area was more than offset by an increase in investments outside the area, especially in Latin America. For the countries considered, banks’ foreign assets contracted overall by one third between March 2008 and June 2012 (from €10,700 billion to €7,200 billion). Changes of the opposite sign occurred in the other leading advanced economies (the United Kingdom, the United States and Japan), where banks increased their foreign claims.¹

Figure 1.6



Source: Based on the consolidated exposures of national banking systems published by the BIS (*Detailed tables on preliminary locational and consolidated banking statistics at end-June 2012*, October 2012, Table 9).

(1) Claims are measured on a consolidated basis and assigned to the country of residence of the parent company. The data are converted into euros at the end-of-period exchange rate. Country codes: AT = Austria; BE = Belgium; FR = France; DE = Germany; IT = Italy; NL = Netherlands; ES = Spain; UK = United Kingdom; US = United States; JP = Japan; CH = Switzerland. The figures shown in the graphs are percentage changes over the periods considered. The figures in black are the changes between March 2008 and June 2012, those in red are the changes between June 2011 and June 2012. There may be discontinuities in the consolidated data corresponding to acquisitions, disposals or changes in the group of reporting institutions (this is the case of the United States, where investment banks have been included in the reporting group since 2009).

The euro-area banks withdraw from all foreign markets, but not uniformly

The euro-area banks’ disposals of foreign investments since March 2008 affected all the major recipient countries except Belgium (Figure 1.6.b). Empirical analyses covering the period June 2011-June 2012 indicate that the outflow of funds was smaller for countries less hit by the sovereign debt crisis, those with more profitable banking systems and those with a greater presence of foreign banks.

¹ The data used in this section are on a consolidated basis: the foreign positions do not include those between banks belonging to the same group but domiciled in different countries. Consequently, the data do not capture the effects of any interventions by national regulators on the subsidiaries in the host country aimed at limiting intragroup flows and matching assets and liabilities at national level (ring-fencing).

**Recently segmentation
has reflected the fall
in interbank claims ...**

From June 2011 to June 2012 segmentation had a widespread effect on interbank claims. In all the main euro-area countries the banks reduced their exposures to foreign banks (Table 1.2): French banks by €151 billion (-28 per cent), German banks by €63 billion (-9 per cent), Italian and Spanish banks by about €19 billion (-14 and -19 per cent). Only Spanish intermediaries slightly increased their exposure to euro-area countries with sounder public finances.² Taken together, the banks of the other main countries (Japan, the United Kingdom, the United States and Switzerland) reduced their exposure to euro-area banks by €123 billion (-21 per cent), while increasing their interbank assets outside the euro area.

Table 1.2

| Gross claims of the reporting countries' banks on foreign bank counterparties (1) (June 2011 – June 2012; changes in billions of euros and per cent) | | | | | | | | | |
|--|----------------------|---------------|---------------|---------------|--------------|---------------|----------------|----------------|----------------|
| Claims of banks resident in | On banks resident in | | | | | | | | |
| | Germany | Italy | Spain | France | Programme | Other euro | Total euro | Total non-euro | Total |
| Germany | – | -13.0 -38% | -20.0 -41% | -5.8 -7% | -9.6 -38% | -7.6 -6% | -56.1 -18% | -6.4 -2% | -62.5 -9% |
| Italy | -5.6 -14% | – | -1.2 -25% | -4.2 -20% | -2.7 -59% | -3.7 -18% | -17.4 -19% | -1.8 -4% | -19.2 -14% |
| Spain | 0.3 9% | -0.6 -21% | – | 2.1 27% | -1.4 -33% | -1.7 -29% | -1.4 -6% | -17.5 -23% | -18.9 -19% |
| France | -34.4 -47% | -7.1 -22% | -10.2 -37% | – | -5.0 -40% | 5.1 7% | -51.5 -24% | -99.3 -31% | -150.9 -28% |
| US, Japan, UK and Switzerland | -11.1 -8% | -15.6 -57% | -12.5 -30% | -52.0 -23% | -6.5 -20% | -25.8 -21% | -123.4 -21% | 27.8 2% | -95.6 -5% |

Source: Based on the consolidated exposures of national banking systems published by the BIS (*Detailed tables on preliminary locational and consolidated banking statistics at end-June 2012*, October 2012, Table 9).

(1) The data do not include banks' claims on and liabilities to the Eurosystem. The data are converted into euros at the end-of-period exchange rate. "Programme" comprises Greece, Ireland and Portugal; "Other euro" comprises Austria, Belgium, Finland, Luxembourg and the Netherlands. Colour codes: red = contractions of more than 5 percentage points; green = increases of more than 5 percentage points; white = changes of 5 percentage points or less in absolute value.

**... and in the claims
on foreign households
and firms**

Segmentation was also substantial for claims on the non-bank private sector. From June 2011 to June 2012 the banks of the main euro-area countries, except Spain, reduced their claims on non-resident households and firms, while increasing those on domestic counterparties. In particular, French banks reduced their exposures by €153 billion (-11 per cent), German banks by €138 billion (-11 per cent) and Italian banks by €43 billion (-10 per cent). The Spanish banks' increase in assets, driven by the growth in their exposures in the United Kingdom, amounted to €37 billion (5 per cent).

² The statistics considered here do not include banks' claims on and liabilities to the Eurosystem.

Italy's external claims and liabilities

Non-residents' disinvestments have come to a halt in recent months

Between the middle of 2011 and the middle of this year, in many respects the financial account of the Italian balance of payments reflected the tendency, observable in other euro-area countries, for foreign claims and liabilities to contract and for banking activity to retrench within national borders. Foreign private investors made very substantial net disposals of investments in Italy, amounting to 13.4 per cent of GDP and mostly involving government securities and loans to banks. In the last few months the outflows have virtually come to a halt.

Italian households reduce their holdings of foreign assets

Overall, Italian investors increased their holdings of foreign assets by 0.8 per cent of GDP, but the aggregate figure masks significant differences between sectors: households, insurance companies and other non-bank intermediaries made net sales, especially of debt securities; these were more than offset by the increase in the foreign assets of the Italian branches and subsidiaries of foreign banks and in those of non-financial corporations. In the middle of 2012 the stock of foreign financial assets held by private Italian residents was substantial; the most liquid components (debt securities and shares/units of investment funds) amounted to more than 40 percentage points of GDP.

1.3 THE REAL-ESTATE MARKETS

In the United States, the market is gradually improving

The US housing market is showing signs of improvement. House prices and the number of sales are rising, and the backlog of unsold homes continues to shrink. The futures market indicates moderate further price rises in the months to come. Positive impulses could come from the mortgage-backed securities purchase programme initiated by the Federal Reserve in September to support the mortgage loan market and from government measures designed to facilitate the renegotiation of loans by debtors in difficulty. However, a source of uncertainty is the volume of houses for sale, which could be increased by foreclosures, given the still high mortgage delinquency rate.

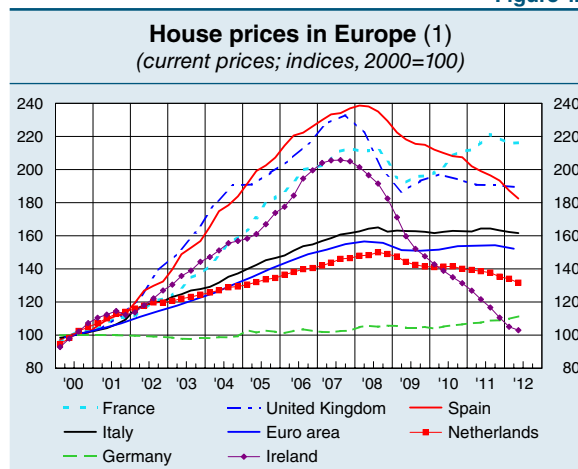
In the euro area, the weak phase of the housing cycle persists, with wide divergences between countries

The housing market in the euro area remains weak. House prices are falling everywhere but Germany (Figure 1.7), while the number of sales is declining sharply in France and remains low in Spain, despite a recent upturn. In the short term the market will continue to be weighed down by the uncertain prospects for economic growth and by high unemployment, especially among young people. Another negative factor is the gradual repeal in many countries, as part of budgetary adjustment programmes, of the tax incentives for buyers that had stimulated demand in the past.

The property market is weakening in Italy as well ...

The real-estate market is slack in Italy too. The contraction of construction

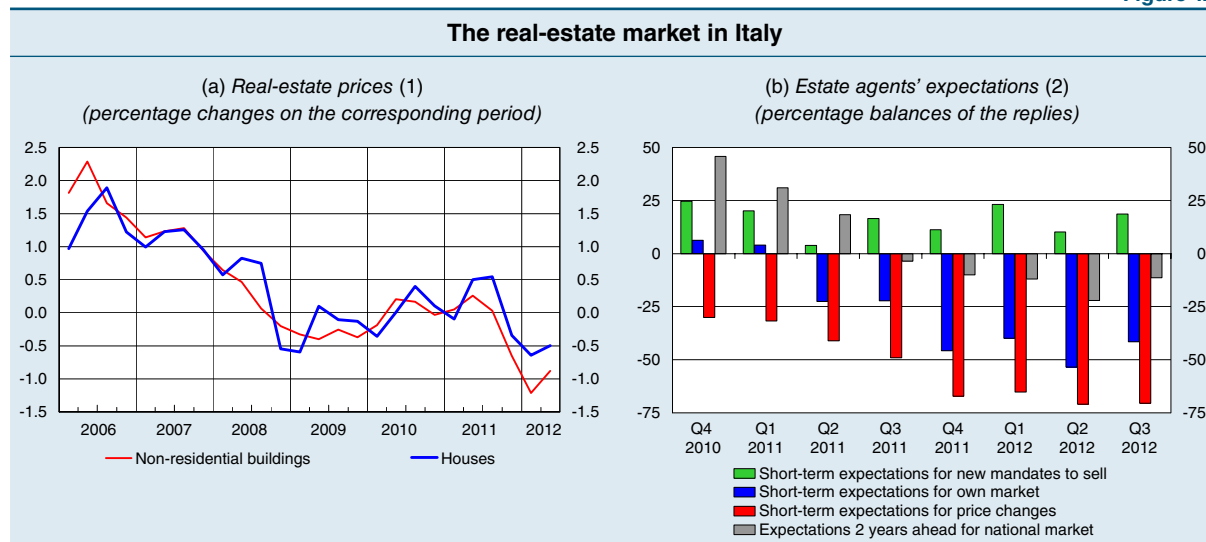
Figure 1.7



Sources: Based on national sources and ECB data.
(1) Quarterly data (for the euro area, semi-annual).

investment intensified in the first half of the year; the number of house sales declined steeply to half the peak level recorded in 2006. House prices, which had been virtually flat for three years, have been declining moderately since the end of last year (Figure 1.8.a). The non-residential segment is weak as well. Prices and volume have registered another decline, more pronounced for retail and industrial properties.

Figure 1.8



Sources: Based on Bank of Italy, Istat, Agenzia del Territorio, *Il Consulente Immobiliare* and Tecnoborsa data.

(1) Quarterly data; two-quarter moving averages. – (2) Quarterly data from the survey conducted by the Bank of Italy, Tecnoborsa and the Agenzia del Territorio. Balances between the percentages of replies indicating a situation that is improving or worsening. Short-term expectations for new mandates to sell, for agents' own market and for price changes refer to the quarter following the one indicated; expectations for the national market refer to a two-year horizon.

... and there are no signs of a cyclical upturn in the coming months

Leading indicators do not point to any improvement in the next few months. Since the summer the confidence of builders has been fluctuating around the low level registered at the start of the year. The index of construction output, measured as a moving average, declined in August to very low levels. According to

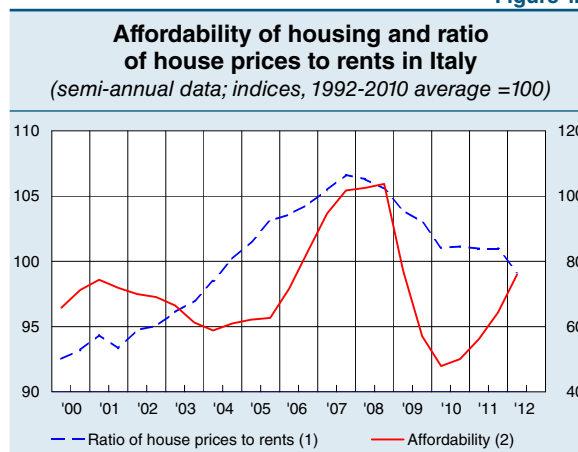
Istat's preliminary estimates

(available up to the fourth quarter of 2011), the number of building permits, especially housing permits, also remains low. The latest surveys of the real-estate agencies confirm the signs of pessimism (albeit with some attenuation, especially for the medium term; Figure 1.8.b).

House prices continue to be in line with the fundamentals ...

The risk of a significant overvaluation of houses remains modest. The ratio of prices to rents is close to its long-run level (Figure 1.9), and house affordability, though worsening progressively due to the poor performance of disposable income, is still better than its long-term average. Econometric evidence too suggests that in the course of the last ten years house prices in Italy have moved in line with their fundamental determinants (see the box "The determinants of house prices in Italy").

Figure 1.9



Sources: Based on Bank of Italy, Istat and *Consulente Immobiliare* data.

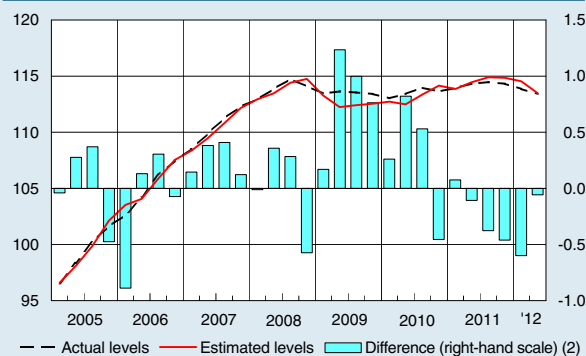
(1) Left-hand scale. – (2) Right-hand scale. The indicator is given by the ratio of debt service on new mortgage loans – proxied by the product of house prices and interest rates – to household disposable income; a decrease indicates that housing is more affordable.

THE DETERMINANTS OF HOUSE PRICES IN ITALY

An important channel through which housing market shocks are transmitted to the financial system is the change in the value of houses provided as collateral for loans, which affects both the cost and availability of credit and the quality of banks' assets. Based on our econometric analyses – which estimate a system of equations representing simultaneous equilibrium on the property market, the mortgage market and the construction loan market – house prices in Italy are positively influenced by an increase in households' disposable income and inflation expectations, while an increase in available floor space per capita and, via the terms for mortgages to households and loans to builders, an increase in the monetary policy reference rate have a negative effect.¹ The analysis shows that developments in house prices have been consistent with those in the underlying determinants for the entire estimation interval, from the start of 1986 to mid-2012. Some very limited discrepancies between actual and estimated house prices have emerged in recent years (positive by less than one percentage point on average in 2009, negative by almost half a percentage point from the end of 2010 onwards; see figure).

House price trends in Italy and difference between actual and estimated levels (1)

(indices, 2005=100 unless otherwise indicated)



Sources: Based on Bank of Italy, Istat and Agenzia del Territorio data.

(1) The estimates are based on an econometric analysis of the relationship between house prices and their main macroeconomic determinants, including households' disposable income, housing floor area per resident, the monetary policy reference rate, and inflation expectations. – (2) Difference between actual and estimated prices, as a percentage of actual prices.

¹ See A. Nobili and F. Zollino, "A structural model for the housing and credit markets in Italy", Banca d'Italia, [Working Papers](#), No. 887, 2012.

... but are affected by the weakness of the economy

The outlook for the Italian housing market is clouded by the adverse cyclical situation of the economy. Assuming that GDP trends are in line with analysts' current forecasts and that no new sovereign debt tensions arise, nominal house prices should fall by around 1 per cent on average in 2012 but begin to recover as early as 2013. In the unfavourable case of a sharper contraction of GDP in 2012-13 and an economic upturn in the course of 2014, the price decline would be just barely more pronounced this year, followed by broad stagnation in 2013 and a progressive recovery in 2014. What is more, a continuation of the contraction in sales and building activity could have adverse effects on the financing conditions for construction firms, leading them to cut their investment plans back still further. An additional source of risk, cited also by estate agents, is the rise in property taxes, which could result in an increase in the number of houses for sale and drive prices down.

The risk to banks' balance sheets from home mortgage loans is limited ...

Banks are exposed to housing market trends mainly through lending to residential builders and mortgage lending to households. In Italy, mortgage loans entail limited balance-sheet risk for banks. Outstanding mortgage lending, two thirds of which is at variable rates, amounted to €280 billion at the end of August, accounting for some 18 per cent of total bank credit, compared with 40 per cent in France and Germany, 35 per cent in Spain and 33 per cent in the euro area on average. Further, the overall ratio of household debt to disposable income in Italy is one of the lowest in the industrial world, and most of the debt involves financially sound households. The risk that a hypothetical sharp fall in

house prices could provoke widespread defaults is also quite limited. Under Italian law, in fact, the borrower must repay his debt in full, regardless of any change in the value of the property. This obligation is discharged only when the bank is repaid in full, possibly after attaching other assets of the debtor, present and future. Italian mortgage loans are thus not of the non-recourse type prevailing in other countries, where the risk of financial system contagion from falling house prices is therefore greater.

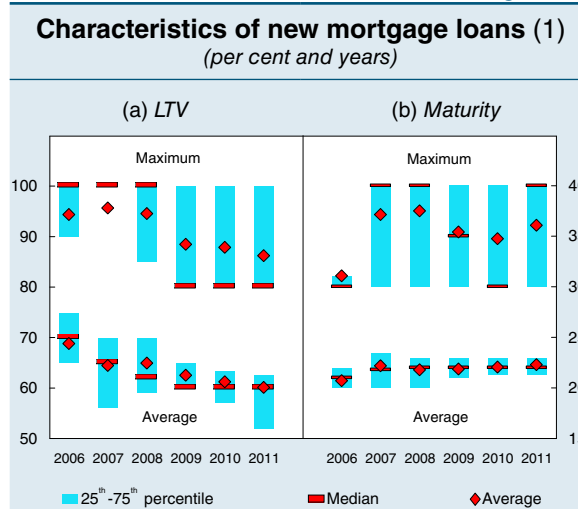
... thanks in part to prudent lending standards ...

Lastly, Italian intermediaries have traditionally maintained prudent standards for mortgage lending. The loan-to-value (LTV) ratio is low, in part as a result of the constraints imposed by the regulations governing real-estate credit and by prudential regulations.³ At the end of September about two thirds of all outstanding mortgage loans had LTV ratios of between 50 and 80 per cent; only 8 per cent had higher ratios. For new loans, between 2006 and 2011 the average ratio came down by nearly 10 percentage points, to around 60 per cent (Figure 1.10). The peak LTV ratio, an indicator used by banks as a benchmark for risk limitation in new business, has followed the same pattern. Over the past five years the average length of new mortgage loans has remained broadly constant at 22 years.

... while the risk on construction loans is high

The greatest source of real-estate risk for Italian banks, at present, involves loans to construction firms, which amounted to €150 billion in 2011 (10 per cent of total credit to the private sector). Based on the balance sheets examined by Cerved, it is estimated that 52 per cent of these firms made losses in 2011 (compared with 35 per cent for manufacturing firms and 42 for the entire sample). In August, 16 per cent of bank loans to builders were classed as bad debts and another 14 per cent were impaired. Banks also have a substantial exposure (€120 billion) to real-estate service companies (sales, rentals, management and brokerage). The quality of credit to these companies too is deteriorating rapidly; 8 per cent of all loans were classed as bad debts and another 14 per cent were impaired.

Figure 1.10



Source: Regional Bank Lending Survey.

(1) The distributions from which the indicators are derived are based on a sample of about 380 banks that account for 90 per cent of total lending to firms and households. Weighted by the stock of mortgage loans to consumer households outstanding at the end of each year.

³ For example, exposures backed by residential property as collateral enjoy lower capital charges if, among other conditions, an independent expert certifies that the stated value of the property does not exceed market value and if the stated value represents adequate collateral for the amount of the loan.

2 THE FINANCIAL CONDITION OF HOUSEHOLDS AND FIRMS

2.1 HOUSEHOLDS

Households' gross financial wealth declines slightly in 2012

In the first half of 2012 Italian households' gross financial wealth declined slightly to just under €3,600 billion in June. In relation to disposable income it is still above the euro-area average (Figure 2.1).

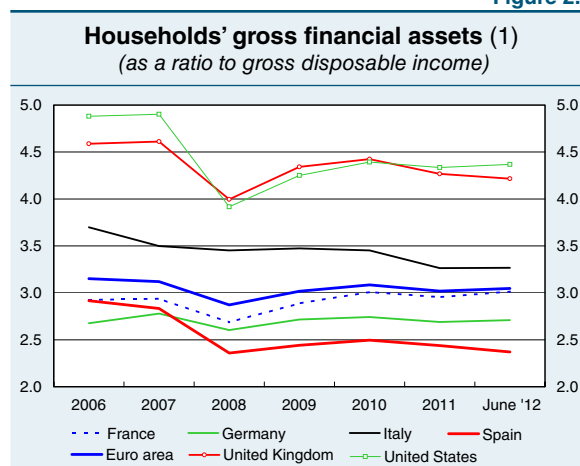
Households' financial assets are mainly low-risk

Most of households' financial assets consist of low-risk instruments (50 per cent deposits and insurance and pension reserves, 20 per cent bonds, mainly bank and public). The rest consists almost entirely of equity and investment fund units. Recently households have been selling foreign assets, a component mainly including bonds and investment fund units and accounting for just under one tenth of the total.

Low interest rates and the mortgage moratorium limit the cost of debt service

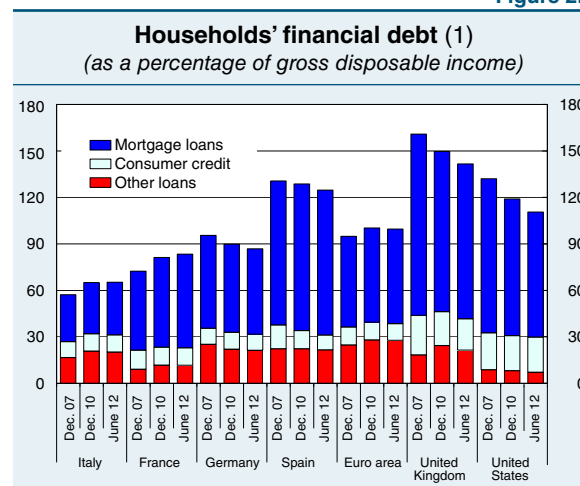
Italian households' financial debt as a ratio of disposable income is unchanged at the relatively low levels of the last two years (about 65 per cent; Figure 2.2). The cost of debt service has also remained stable; this reflects above all the low average interest rate on outstanding loans (4.1 per cent in September), itself due to a reduction in Euribor, to which more than two thirds of house purchase loans are indexed. Support to mortgage-borrowers in difficulty was given by the extension to January 2013 of the moratorium agreed by the Italian Banking Association and consumer associations. Since February 2010 the moratorium has enabled more than 74,000 homeowners (16,500 in the first seven months of 2012) to suspend repayments amounting on average to €7,300.

Figure 2.1



Sources: Bank of Italy and Istat for Italy; Eurostat and ECB for the other euro-area countries; Central Statistical Office for the United Kingdom; Federal Reserve System and Bureau of Economic Analysis for the United States. (1) The data refer to consumer and producer households, except for the United States, for which they refer only to consumer households. For the second quarter of 2012, provisional data.

Figure 2.2



Sources: Bank of Italy and Istat for Italy; Eurostat and ECB for the other euro-area countries; Central Statistical Office and Bank of England for the United Kingdom; Federal Reserve System and Bureau of Economic Analysis for the United States. (1) The data refer to consumer and producer households, except for the United States, for which they refer only to consumer households. For the second quarter of 2012, provisional data. The data include bad debts.

The portion of indebted households diminishes

The crisis does not seem to have significantly changed the indebtedness of Italian households. The Bank of Italy's Survey on Household Income and Wealth shows that in 2010 the share of indebted households was modest (about a quarter) and was declining slightly, especially among low-income households, mainly as a result of the tightening of banks' lending policies. For 2011-12 it is estimated that vulnerable households (with debt service equal to more than 30 per cent of disposable income) will make up 2.2 per cent of the total, as in the preceding period (see the box "The financial vulnerability of indebted households," in *Financial Stability Report*, No. 2, November 2011). Considering money income only,¹ the share of vulnerable households is 3.6 per cent. Focusing on households in the first two quartiles with the lowest income, the shares are respectively 1.4 and 1.0 per cent of the total, which account for about 16 per cent of overall debt in the sector (about 6 per cent for households in the lowest quartile). Over-indebtedness – the inability to definitively discharge debt obligations and a lasting gap between debt and saleable assets – appears to concern a modest percentage of households (0.6 per cent of the total).

There are risks deriving from weak income dynamics

Set against the relatively modest level of indebtedness and the low cost of loans, the main risk for households' finances remains weak income dynamics, which could make the burden of repaying debt heavier, in particular for vulnerable households. Looking ahead, tensions could derive from an increase in market interest rates if this is not accompanied by a robust recovery in economic activity. However, low-income households account for a limited share of indebted households and hold a modest volume of loans. With reference to mortgages, the risks for intermediaries are further circumscribed by low loan-to-value ratios.

2.2 FIRMS

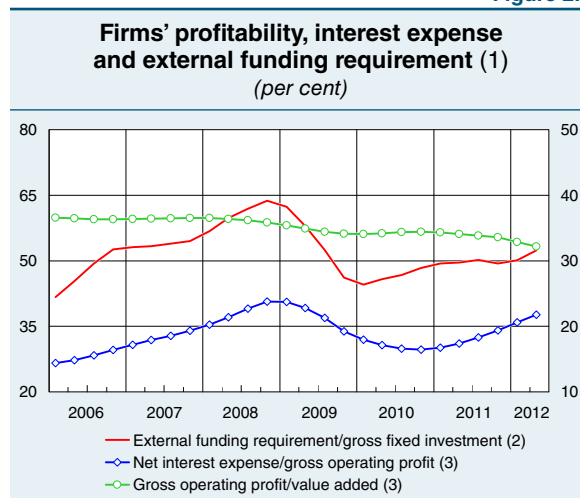
The weakness of the economy continues to affect firms' profitability

The recession is affecting firms' profitability. Gross operating profit has fallen to 32.2 per cent of value added (Figure 2.3). The decline in profits is having an adverse impact on self-financing, both in absolute terms and in relation to investment. Among the 4,000 industrial and service firms participating in the business outlook survey conducted by the Bank of Italy in September, the balance between firms expecting to show a profit in 2012 and those expecting to show a loss is equal to 20 per cent (compared with more than 30 per cent in 2011); the balance for small firms and those in the service sector is even lower.

Expectations for the coming months are less pessimistic

The economic situation is fragile but there are some signs of improvement. In July and August industrial orders began to grow again, mainly driven by the foreign component. Firms' opinions are less pessimistic: in September and October the indices reflecting the assessments of firms' purchasing managers

Figure 2.3



Sources: Bank of Italy and Istat.

(1) Estimates based on national accounts data for the non-financial corporations institutional sector. The data used to calculate the indicators are the sum of the four quarters ending in the reference quarter. – (2) Left-hand scale. The external funding requirement is the difference between firms' investment and self-financing. – (3) Right-hand scale.

¹ Money income excludes imputed rents, which represent notional income for those who own the property they live in; this is included in the definition of disposable income used in the national accounts.

(PMI) improved from the summer, though remaining at levels that still do not foreshadow a return to growth. With reference to listed companies only, signs of improvement come from financial analysts' forecasts for short-term profits, which have ceased falling since the beginning of August.

Financial conditions for firms remain tight

The decline in bank lending to firms has become more pronounced in the course of the year, as a result both of the tensions in credit supply and of the recession-induced fall in demand for funding. Interest expense as a percentage of gross operating profit has nevertheless continued to increase (Figure 2.3), reflecting the deterioration in both the numerator and the denominator. The persistence of pressures on firms' profitability and finances is reflected in recent trends in length of time to settlement of commercial transactions. In the second quarter the percentage of firms with very late payments due (more than two months beyond the agreed payment date) rose to 6.5 per cent. The service and construction sectors had the largest increase in late payments.

Bond issues recover

The recent easing of the pressure on sovereign debt has facilitated a recovery in market activity on the part of Italian firms: in the first nine months of 2012 gross bond issues on the international markets amounted to €14 billion (€8 billion in the corresponding period of 2011). As in the case of the banks, the cost of funding is affected by the size of the spread on public securities (see the box "The cost of bond funding for firms"). Since the end of July both bond spreads and credit default swap (CDS) spreads in relation to Italian firms have fallen, although they remain well above the levels recorded in the period before the summer of 2011, when the most acute phase of the sovereign debt crisis began (see *Economic Bulletin*, October 2012).

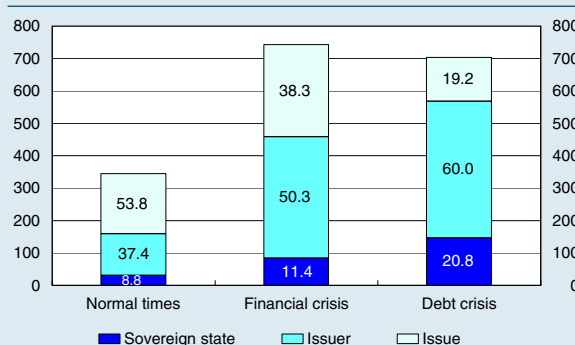
THE COST OF BOND FUNDING FOR FIRMS

During the crisis the risk premium on bonds issued by non-financial corporations, measured by the asset swap spread,¹ increased considerably in all the main economies. For Italian firms this indicator rose from 71 basis points in 2006 to an average of 308 in the first six months of this year.

An econometric analysis of more than 3,000 bond issues by euro-area, UK and US firms indicates that during the period 2006-12 the features of the bond issued (duration, amount, rating and currency of denomination) progressively lost relevance among the determinants of yields at issue, in the face of the growing importance of the characteristics of the issuer firm (size, rating, CDS spread) and the country where it is incorporated.

In particular, in the first phase (January 2006 to June 2007, "normal times" in the figure), the difference between the premiums at issue of the worst- and best-quality bonds averaged 350 basis points; more than half this difference

Breakdown of the premium on bonds based on the characteristics of the issue, the issuer and its state of residence (1)
(basis points and per cent)



Sources: Based on Bloomberg, Dealogic and Thomson Reuters Datastream data.

(1) For each of the three periods considered (normal times: from January 2006 to June 2007; financial crisis: from January to December 2009; sovereign debt crisis: from July 2011 to June 2012) the histograms were obtained based on a regression relating asset swap spreads to their main determinants. In particular, each area of the histogram was obtained by adding the estimated coefficients relative to all the different variables attributable to the same type of characteristic. Each area accordingly represents the relative importance of the three different groups of factors (type of issue, issuer, and state of residence) in determining the difference between the premiums at issue of the worst and best-quality bonds.

¹ The difference between the yield at issue and the swap rate with the same maturity.

was determined by the features of the issue alone, just over a third depended on issuer characteristics, while the effect attributable to the creditworthiness of the country of residence was 9 per cent.

Following the collapse of Lehman Brothers, investors paid increasing attention both to issuer and to country characteristics and this tendency was accentuated during the sovereign debt crisis: the relative importance of the issue characteristics declined further (to 19 per cent), while that of issuer characteristics increased, in particular ratings and CDS spreads (to 60 per cent); the effect attributable to the credit standing of the state of issue likewise increased (to 21 per cent).² It is estimated that the increase of the cost at issue attributable to this factor alone is just under 150 basis points.

² By way of comparison, it has been estimated that the importance of the sovereign issuer's quality in determining the spread at issue of bank bonds not backed by public guarantees amounted to about 30 per cent in 2010 (G. Grande, A. Levy, F. Panetta and A. Zaghini, "Public guarantees on bank bonds: effectiveness and distortions", *OECD Journal: Financial Market Trends*, 2, 2011).

The support measures promoted by the Government help to lessen firms' difficulties

Numerous measures of support promoted by the Government are aimed at mitigating firms' difficulties in obtaining credit. In the first seven months of the year the applications for funding accepted by the Central Guarantee Fund for small and medium-sized enterprises,² up by comparison with 2011, regarded a volume of loans amounting to €4.7 billion and a guaranteed amount of €2.3 billion. Under the new agreement signed last February by the Ministry for the

Economy and Finance, the Italian Banking Association and business associations (see the box "Moratoria on firms' debt: forbearance risk?", in *Financial Stability Report* No. 3, April 2012), between March and July 32,000 applications were granted for suspension of loan repayments in relation to a residual debt of €11 billion.

Derivatives exposure is modest overall

According to data reported by the banks, last June Italian firms had a negative net position in derivatives contracts of €6.7 billion. More than 90 per cent of these consisted of contracts hedging against the risk of a rise in interest rates. Central

Credit Register data shows that the ratio of firms' derivatives exposure to their total bank debt averaged 3.3 per cent for all firms using derivatives and 11 per cent for those in the last decile of the distribution of the ratio. Among the latter, the ratio of non-performing bank loans to total loans is similar to that for other firms.

The major risks derive from the recession and the difficulties in obtaining credit

The most important risk factors for firms' financial conditions are the adverse state of the economy and the difficulty of obtaining financing from banks and the market. Most at risk are firms in the service sector and, above all, the construction industry. Regarding the latter, the most recent surveys indicate that serious difficulties will persist in the months ahead, with forecasts of a sharp fall in the value of production.

² Operational for more than a decade, the Fund favours small production units' access to credit by granting a public guarantee for business-related financial transactions.

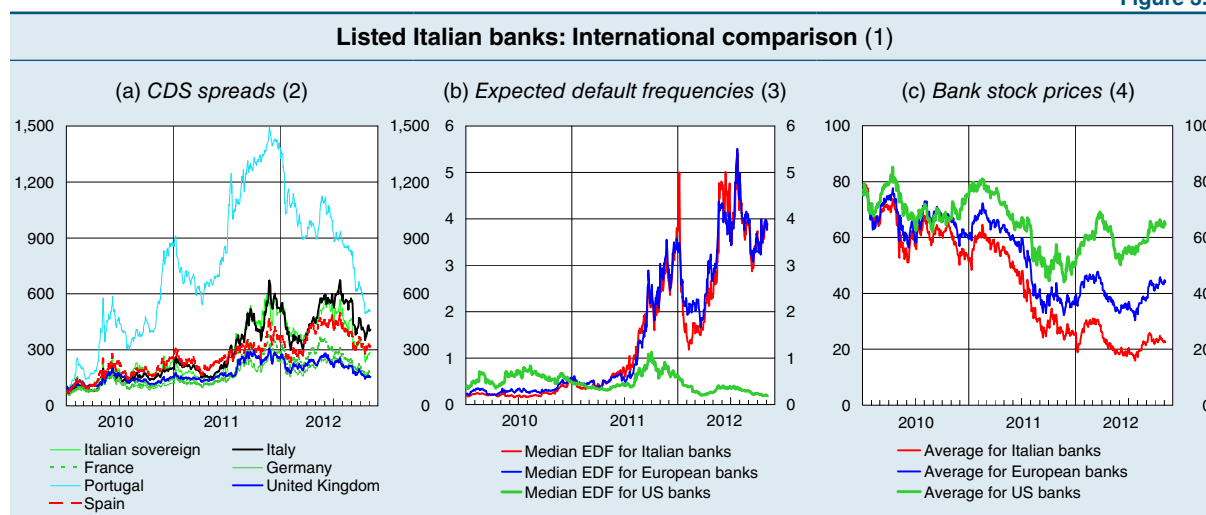
3 THE BANKING AND FINANCIAL SYSTEM

3.1 THE MARKET'S ASSESSMENT OF ITALIAN BANKS

Market-based indicators point to an improvement

According to market indicators, investors' assessments of Italian banks are improving. Fears of insolvency have diminished (Figures 3.1.a and 3.1.b) and bank share prices are picking up (Figure 3.1.c). Systemic risk indicators have also made progress: the JPoD¹ for Italian banks has fallen significantly. The improvement can be put down to the reduction in sovereign risk, which partly reflects the action taken by the ECB, as well as the prospect of banking union and the easing of fears of contagion after measures were put in place to support Spain's banking system. However, the price-to-book ratio of Italian banks continues to reflect high risk premiums and low profit growth expectations at a time of deteriorating loan quality.

Figure 3.1



Sources: Based on data from Bloomberg, FTSE, I/B/E/S, Thomson Reuters Datastream and Moody's KMV.

(1) Panel (a) refers to the following banks: for Italy, UniCredit, Intesa Sanpaolo and Banca Monte dei Paschi di Siena; for France, BNP Paribas, Société Générale and Crédit Agricole; for Germany, Deutsche Bank and Commerzbank; for Portugal, Banco Espírito Santo and Banco Comercial Português; for the United Kingdom, Barclays, Royal Bank of Scotland, HSBC and Lloyds; for Spain, Santander and Banco Bilbao Vizcaya Argentaria. Panels (b) and (c) refer to the following samples of banks: for Italy, UniCredit, Intesa Sanpaolo and Banca Monte dei Paschi di Siena; for Europe, UniCredit, Intesa Sanpaolo, Banca Monte dei Paschi di Siena, BNP Paribas, Société Générale, Crédit Agricole, Deutsche Bank, Commerzbank, ING, Banco Santander, Banco Bilbao Vizcaya Argentaria, HSBC, Barclays, Royal Bank of Scotland, Lloyds, UBS and Credit Suisse; for the United States, Citigroup, JPMorgan Chase, Bank of America, Goldman Sachs, Morgan Stanley and Wells Fargo. – (2) Daily data, basis points. 5-year senior debt. – (3) Daily data, percentage points. The expected default frequencies (EDFs), calculated on the basis of the price and volatility of the shares of the intermediaries to which they refer, measure the probability of assets having a lower market value than liabilities over a one-year horizon. – (4) Average share prices are calculated with reference to price indices; closing price at 29 August 2008=100.

¹ The joint probability of distress estimates the likelihood that several banks will find themselves in difficulties at the same time. For the calculation methodology, see the box "Indicators of interdependence between banks" in *Financial Stability Report* No. 2, November 2011.

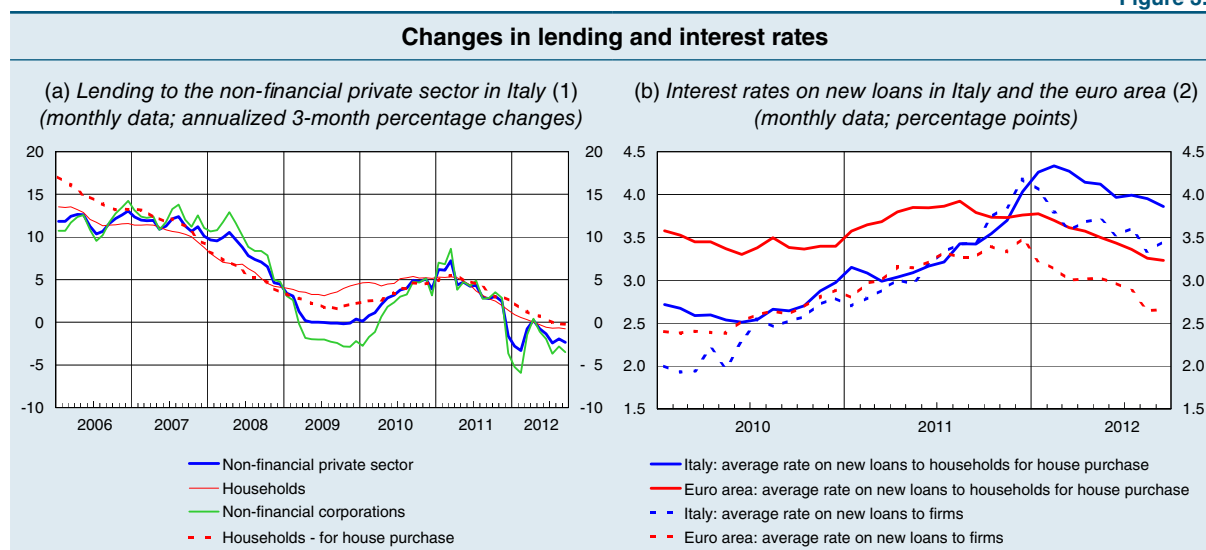
3.2 CREDIT

Lending to the economy

The credit contraction reflects both the weakness of demand and ...

Lending to the non-financial private sector is falling (Figure 3.2a), mainly as a result of the sharp decline in loans to firms. The trend in lending reflects, in the first place, the weakness of demand: loan applications from households were curbed by the contraction of disposable incomes and the uncertain performance of the housing market; firms' demand for credit was limited by the fall in their external funding needs.

Figure 3.2



Sources: Based on Bank of Italy and ECB data.

(1) The percentage changes are calculated net of reclassifications, exchange rate variations, value adjustments and other variations not due to transactions. Lending includes an estimate of loans not recorded in banks' balance sheets because they have been securitized. Where necessary the data have been seasonally adjusted. – (2) The data refer to transactions in euros and are collected and processed using the Eurosystem's harmonized method.

... the strains on the supply side

Credit supply conditions, which became very tight in the period bridging 2011 and 2012, have improved, benefiting from the positive developments in the government bond market (see the box "The transmission of sovereign debt market strains to banks' activity in Italy"). This progress is shown by several indicators. Following the fall in short-term market rates, bank interest rates on new loans began to fall again although they were still higher than the euro-area average (Figure 3.2b). The Bank of Italy's econometric model for credit demand² shows that the negative difference between the actual growth in lending to firms and the estimated demand for loans narrowed considerably in the central months of this year. However, the indications regarding the more recent period are not unambiguous. According to the surveys of manufacturing firms, the share of respondents who thought access to credit was more difficult rose slightly in the autumn (Figure 3.3); similar indications emerge from the Bank of Italy's qualitative surveys of banks. Overall, supply conditions are still tighter than in mid-2011, indicating that the tensions of recent months have eased but not disappeared.

² Credit demand is estimated on the basis of nominal GDP, firms' external funding needs and the differential between the cost of credit and the 3-month money-market rate (see L. Casolaro, G. Eramo and L. Gambacorta, "Un modello econometrico per il credito bancario alle imprese in Italia", *Moneta e Credito*, Vol. 59, No. 234, 2006, pp. 151-83).

THE TRANSMISSION OF SOVEREIGN DEBT MARKET STRAINS TO BANKS' ACTIVITY IN ITALY

Since the spring of 2010 the increase in sovereign risk has been accompanied by a deterioration in Italian banks' wholesale funding conditions and a rise in the interest rates on loans to households and firms. This box describes the effects of the sovereign debt crisis on banking activity, measuring the intensity of the strains by the yield spread between ten-year Italian and German government securities and controlling for the main determinants of the variables considered.¹

Regarding the cost of funding, it is estimated that a 100 basis point change in the sovereign spread will produce, in the same or the following quarter, about a 40 basis point change of the same sign in the interest rate on new term deposits and repos; the total effect increases to 60 points in the space of a year. The impact on bank bond yields is greater and more immediate, amounting to 100 basis points within a quarter, while the effects on the cost of current account deposits are negligible. The effects were more limited in the period before the sovereign debt crisis. The shocks from the sovereign spread are transmitted to bank funding rates via several channels, such as the banks' direct exposure to the public sector, the use of government securities as collateral in the wholesale funding market, and the links between sovereign rating and bank ratings (see the box "The impact of sovereign risk on banks' funding", *Financial Stability Report*, No. 2, November 2011).

Regarding the cost of bank loans, our analyses indicate that in periods of tension a 100 basis point change in the sovereign spread produces, within a quarter, a change of the same sign of about 50 basis points in interest rates on loans to firms and 30 basis points in the rates for household mortgage loans. After one year, transmission is virtually complete for the former and has reached about 80 basis points for the latter. As to the volume of lending, a 1 percentage point increase in the spread reduces the annual growth rate of loans to households and firms by around 0.7 percentage points, an effect which compounds that of the increase in bank lending rates. Analyses on other European countries reveal that sovereign debt strains are similarly transmitted in the other economies directly hit by the crisis.

A counter-factual exercise indicates that if the spread had stayed at the level of the first quarter of 2010 (0.70 percentage points), in the second quarter of 2012 the interest rates on new loans to firms and mortgage loans to households would have been lower than their actual levels by around 1.6 and 1.9 percentage points respectively. The annual growth in lending would instead have been about 4.0 and 3.5 percentage points higher.

Sovereign risk also has repercussions on banks' profitability. Transmission takes place primarily via the deterioration in credit quality: a 100 basis point increase in the spread entails an increase of about 25 per cent in loan loss provisions. The major banking groups, for which wholesale funding accounts for a substantial share of the total and revenues associated with financial market performance have considerable weight, also face a drop of 4 per cent in net interest income and 2 per cent in other revenues.

In order to assess fully the effects that changes in the spread have had on the Italian economy, two further factors need to be considered. First, the decrease in market rates following the measures taken by the Eurosystem has partially offset the impact of the increased spread on the cost of new finance; it has also reduced the burden of debt service on outstanding indexed loans. Second, changes in the spread also reflect the "flight to quality", which lowers the interest rates on German government bonds but not on Italian BTPs. We estimate that taking account of this effect the transmission of changes in the spread to bank lending rates to firms would be weaker.

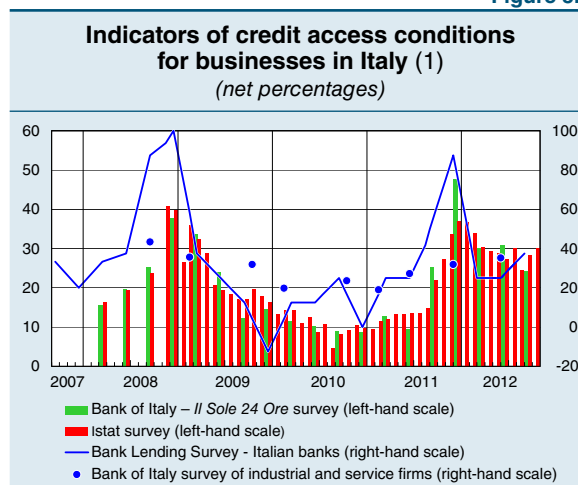
¹ See U. Albertazzi, T. Ropele, G. Sene and F. M. Signoretti, "The impact of the sovereign debt crisis on the activity of Italian banks", Banca d'Italia, *Occasional Papers*, No. 133, 2012.

The contraction in lending to firms and households will continue in 2013

Our estimates show that loans to firms will continue to decline in the last part of 2012 (Figure 3.4a), as a result of a fall in investment, which will curb the demand for credit, and still tight supply conditions; the decline is expected to continue in 2013, although at a slower pace. The growth rate of loans to households for house purchase is likely to reach its lowest point in mid-2013, because of persistently stringent supply criteria, the fall in disposable incomes and the weakness of the housing market.³

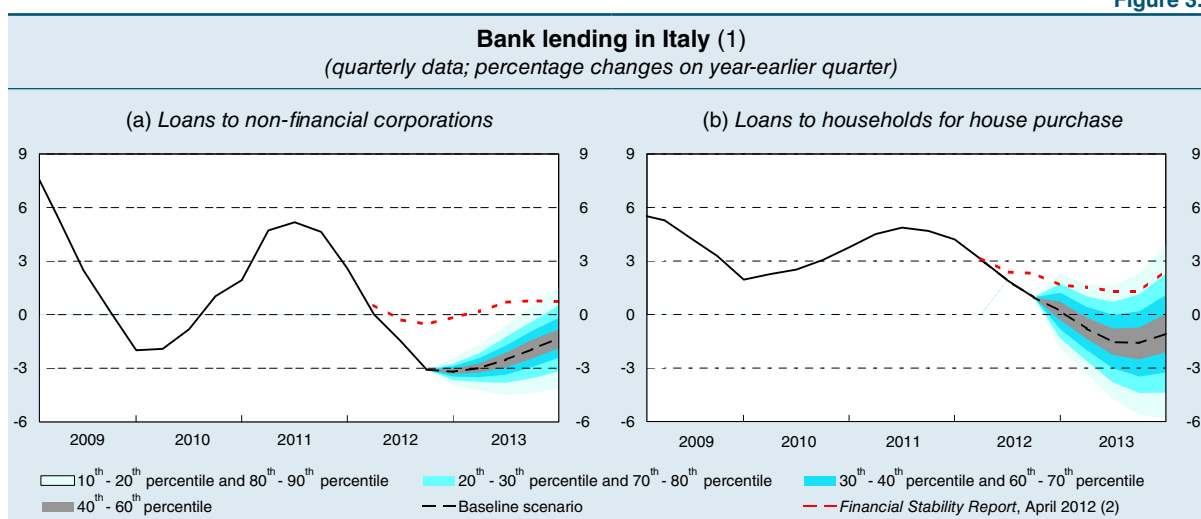
The uncertainty surrounding these scenarios is particularly large, and the forecasting risk, on the whole, is slightly downwards. On the one hand, the recent improvement in market conditions could strengthen and continue, thus contributing to an easing of the tensions in the supply of loans; on the other, economic activity could follow a more unfavourable path than hypothesized.

Figure 3.3



Sources: Based on Bank of Italy, Bank of Italy – *Il Sole 24 Ore*, and Istat data. (1) A fall in the indicators denotes an improvement in credit supply conditions; net percentages calculated as the difference in percentage points between the percentage of responses indicating a worsening of credit access conditions and the percentage of those indicating an improvement.

Figure 3.4



(1) Loans include an estimate of those not entered in banks' financial statements because they have been securitized. The probability distribution of the forecasts (which makes it possible to assess the size of the risks associated with the baseline forecast) was calculated on the basis of stochastic simulations performed with random extractions from the distribution of the shocks of the Bank of Italy's quarterly econometric model. The distribution is shown graphically by percentile classes. – (2) Baseline scenario.

³ The macroeconomic framework underlying these estimates is not significantly different from that of the most recent IMF forecasts, contained in last October's *World Economic Outlook*. Lending to households and firms reported here is expected to be slower than published in the last edition of this Report. The difference is almost entirely due to the sharp downward revision of the outlook for GDP growth.

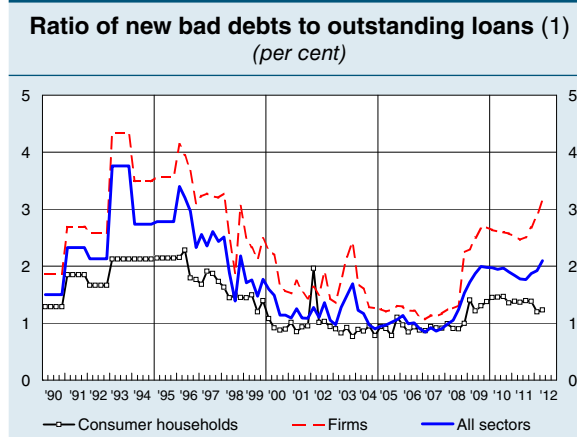
Credit quality

The deterioration in the quality of business loans continues ...

Credit quality continues to suffer from the recession. In the first half of 2012 the flow of new bad debts in relation to total lending rose back to the peaks reached in 2009 (Figure 3.5). The increase was entirely due to loans to firms and involved all the productive sectors, with the sharpest rise recorded in the construction industry. By contrast, in relation to lending to households new bad debts diminished.

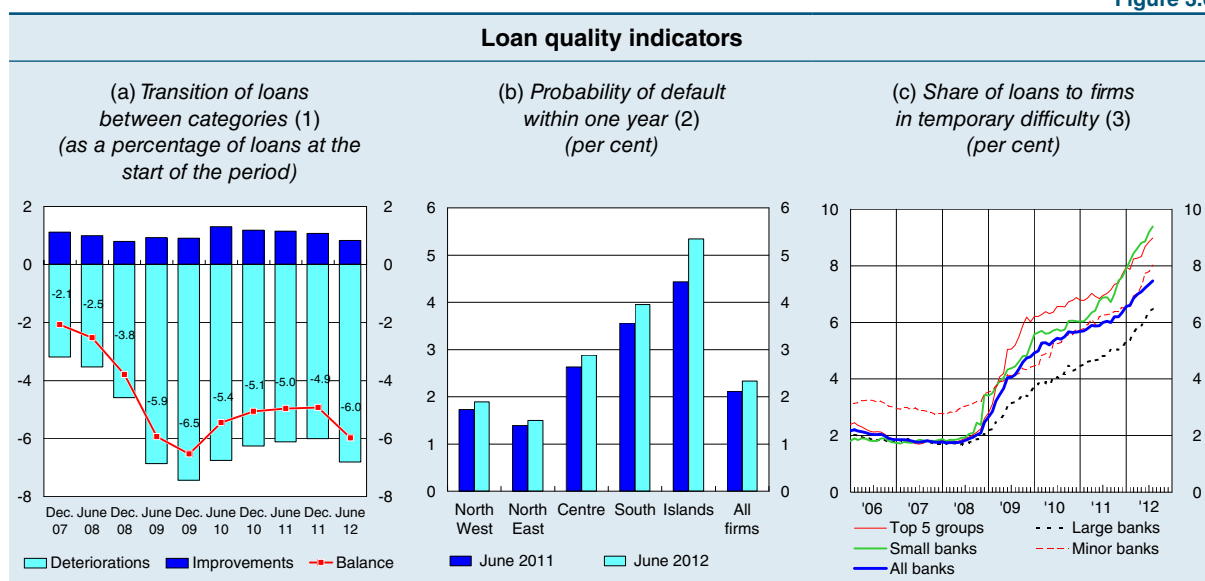
Leading indicators suggest that the quality of loans to firms will deteriorate further (Figure 3.6). The indicator based on the transition of loans between the different classes of quality used by banks for management purposes worsened again; the probabilities of default within one year and the share of loans to borrowers in temporary difficulty (so-called substandard loans) have both increased.

Figure 3.5



Sources: Supervisory statistical reports and Central Credit Register.
(1) Quarterly flow of adjusted bad debts in relation to the stock of loans at the end of the previous quarter; annual data up to the fourth quarter of 1995. Seasonally adjusted where necessary and annualized.

Figure 3.6



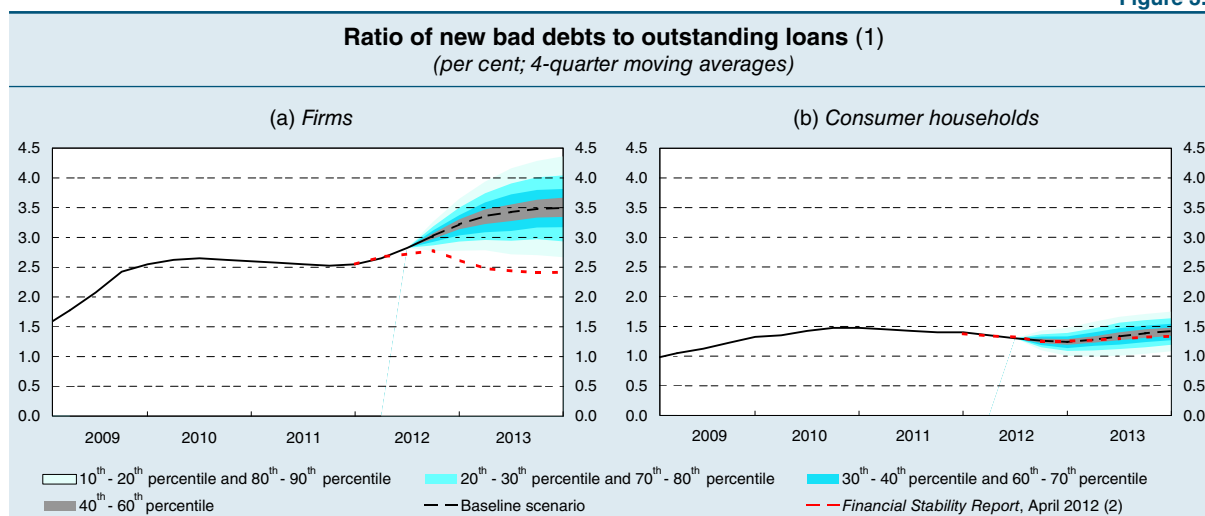
Sources: Central Credit Register and company accounts.

(1) The index considers the movements of loans to firms between the different categories (loans with no anomalies, overdrafts in breach of limits, past-due loans, restructured loans, substandard loans and bad debts). It is calculated as the balance between the percentages of loans whose quality deteriorated/improved in the 12 preceding months. – (2) The probabilities of default are estimated for some 800,000 non-financial firms on the basis of vulnerability indicators derived from company accounts and indicators of financial strain in credit relationships. – (3) Loans classified by intermediaries as substandard loans and restructured loans. The division into size classes is based on the composition of banking groups at August 2012 and total non-consolidated assets at December 2008. Top 5 groups: banks belonging to the UniCredit, Intesa Sanpaolo, Banca Monte dei Paschi di Siena, Unione di Banche Italiane and Banco Popolare groups. The size classes "large", "small" and "minor" refer to banks belonging to groups or independent banks with total assets, respectively, greater than €21.5 billion, between €3.6 billion and €21.5 billion, and below €3.6 billion. Excludes branches of foreign banks.

... and is expected to peak in 2013

The flow of new bad debts in relation to loans to firms is expected to grow through the first half of 2013 (Figure 3.7.a), mainly reflecting the contraction in economic activity. For loans to households, instead, the default rate is expected to stay at its

Figure 3.7



(1) Quarterly flow of adjusted bad debts in relation to the stock of loans at the end of the previous quarter. Seasonally adjusted where necessary. The probability distribution of the forecasts, which permits assessment of the size and direction of the risks characterizing the baseline forecast, was calculated on the basis of stochastic simulations performed with random extractions from the distribution of the shocks of the Bank of Italy's quarterly econometric model. The distribution is shown graphically by percentile classes. – (2) Baseline scenario.

present level over the entire forecasting horizon (Figure 3.7.b); the adverse effect of the worsening of labour market conditions and the decline in disposable incomes is likely to be offset by the low level of short-term interest rates. As seen in Chapter 1.3, the low riskiness of loans to households also reflects the prudent mortgage lending criteria applied by banks. These forecasts are also subject to a high degree of uncertainty and to risks, balanced overall, in relation to the sovereign spread and the state of the economy.

Intermediaries record a rise in the incidence of non-performing loans ...

The stock of gross non-performing loans (bad debts, substandard loans, restructured loans and past-due exposures) of banks and financial companies amounted to 12.3 per cent of customer loans in June 2012 (Table 3.1), compared with 11.1 per cent at the end of 2011; net of provisions, non-performing loans were equal to 8.1 per cent of net lending and 70 per cent of regulatory capital.

Business loans made up three quarters of non-performing loans, with a non-performing-loan ratio of 16.8 per cent.

... whose classification criteria are being evaluated by the Bank of Italy

International comparisons of non-performing loans are affected by national differences. In Italy, the accounting criteria banks use in classifying loans are aligned with specific prudential rules of particular severity. Moreover, the stock of non-performing loans is kept high by the slowness of credit recovery procedures, which compels intermediaries to keep impaired positions on their balance sheets longer

than in other countries.

Supervisory practices also count, and in Italy they are traditionally scrupulous. The Bank of Italy evaluates the adequacy of loan classification criteria by means of thorough periodic on-site inspections in order to limit the risk of forbearance, typical of periods of weak economic activity.⁴ Loan reclassifications resulting from inspections constitute a significant share of the positions examined; for example, the inspections carried out in the first half of 2012 led to the reclassification of 20 per cent of the loans examined. In addition, the Bank of Italy examines the risks of banks' portfolios continually on the basis of detailed and frequent statistical reports on each bank's exposure to every firm, assessing

⁴ Banks may display excessive leniency towards borrowers in difficulty in order to delay adjustments in their balance sheets.

Table 3.1

Loan quality: Ratio of performing loans and non-performing loans to total lending and coverage ratios (1)
(per cent; June 2012)

| | Top 5 groups | | Large banks | | Small banks | | Minor banks | | Financial companies not belonging to a banking group | | Total system | |
|-------------------------|--------------------------|-----------------|--------------------------|-----------------|--------------------------|-----------------|--------------------------|-----------------|--|-----------------|--------------------------|-----------------|
| | Percent-age com-position | Cover-age ratio | Percent-age com-position | Cover-age ratio | Percent-age com-position | Cover-age ratio | Percent-age com-position | Cover-age ratio | Percent-age com-position | Cover-age ratio | Percent-age com-position | Cover-age ratio |
| Customer loans | 100 | 5.7 | 100 | 3.8 | 100 | 5.0 | 100 | 3.6 | 100 | 7.9 | 100 | 5.2 |
| of which: | | | | | | | | | | | | |
| Performing | 87.0 | 0.6 | 90.1 | 0.5 | 86.8 | 0.5 | 87.0 | 0.4 | 85.9 | 1.0 | 87.7 | 0.6 |
| Non-performing | 13.0 | 40.3 | 9.9 | 33.5 | 13.2 | 34.6 | 13.0 | 25.1 | 14.1 | 49.9 | 12.3 | 37.7 |
| <i>Bad debts</i> | 7.2 | 55.9 | 5.1 | 51.2 | 6.6 | 54.8 | 5.6 | 46.1 | 9.2 | 65.1 | 6.7 | 54.7 |
| <i>Substandard</i> | 3.5 | 23.3 | 3.0 | 18.4 | 4.3 | 18.2 | 5.4 | 11.3 | 3.1 | 26.4 | 3.6 | 20.6 |
| <i>Restructured</i> | 1.3 | 20.2 | 0.7 | 15.5 | 0.5 | 10.8 | 0.3 | 12.9 | 0.2 | 7.6 | 1.0 | 18.9 |
| <i>Past-due</i> | 0.9 | 10.2 | 1.2 | 5.9 | 1.8 | 5.6 | 1.8 | 3.1 | 1.5 | 11.7 | 1.1 | 7.9 |
| <i>Memorandum item:</i> | | | | | | | | | | | | |
| Customer loans (€ mn) | 1,344,635 | | 490,846 | | 133,696 | | 183,908 | | 66,520 | | 2,219,604 | |

Source: Supervisory statistical reports.

(1) The coverage ratio is the amount of loan loss provisions as a share of the corresponding gross exposure. In the case of performing loans, it is calculated as the ratio of generic provisions to performing loans. Excludes branches of foreign banks. The classification of banks is the same as in Figure 3.6.c.

the adequacy of the classification criteria adopted by different intermediaries for the same customer. This limits the possibility of debtors effectively in default being classified as performing.

Coverage ratios decline ...

The non-performing-loan coverage ratio (the stock of provisions over gross non-performing loans) is 37.7 per cent, compared with 49.4 per cent in 2007. Four percentage points of the decline are due to the change in the composition of non-performing loans. In keeping with past experience, the new slump in economic activity has increased the portion of non-performing loans other than bad debts, typically characterized by lower coverage ratios: for bad debts the coverage ratio is 54.7 per cent, compared, for example, with 20.6 per cent for substandard loans (Table 3.1). In turn, the differences between coverage ratios reflect differences between loss ratios: for bad debts they are generally more than double those for substandard loans. Moreover, the coverage ratio differs markedly among banks: it is relatively high for the five largest banking groups, while it is lower for minor banks, which have higher capital ratios (their core tier 1 ratio was 12.6 per cent last June, against 10.5 per cent for the five largest groups).

... but many factors help contain the residual risk borne by banks

In evaluating the average data on the coverage ratios described above, it is necessary to consider several factors that attenuate the residual risk borne by banks. First and foremost is the degree of collateralization of non-performing exposures, which is very high for Italian banks. Among the top thirty groups, the average coverage ratio is lower for banks that have a larger share of non-performing exposures backed by collateral (and thus higher expected recovery rates).⁵

In addition, in their balance sheets banks tend to write off the portion of the loan on which they ascertain definite losses, thereby determining an underestimation of the actual coverage of non-performing positions (see the box “Coverage ratios and write-offs”).

⁵ The comparison is between the banks with more than 50 per cent of their non-performing exposures collateralized and all other banks. The first group's non-performing loan coverage ratio is 11 percentage points lower than the second's. For the entire banking system, collateralized loans made up 45 per cent of total loans in June 2012, a higher percentage than in the period before the crisis.

COVERAGE RATIOS AND WRITE-OFFS

Banks can record losses on non-performing loans in two ways. The first one consists of setting up provisions against the portion of the exposure deemed unrecoverable; the second one involves directly writing off that portion of the exposure. Banks generally choose the write-off when the loss is confirmed by indubitable and specific elements;¹ otherwise they opt for making provisions. The choice of accounting method may depend on tax considerations: under Italian law, when a loss is confirmed by indubitable and specific elements the write-offs are wholly deductible for corporate income tax purposes (IRES), whereas in a given fiscal year provisions are deductible only up to a maximum of 0.3 per cent of the value of balance-sheet loan assets; any amount over the 0.3 per cent limit is deductible in equal instalments over the next 18 fiscal years.

The choice between the two methods is irrelevant to the value of the loans entered in the balance sheet, in both cases net of losses. However, from the accounting standpoint, the write-off results in an underestimation of the effective coverage ratio,² since it does not show the decreased riskiness of the non-performing loans remaining on the balance sheet after the write-off. Consider, for example, the case of a bank which in respect of a loan entered in the balance sheet of €100 and an expected loss of €20 (unsubstantiated by indubitable and specific elements), makes a provision for the amount of the expected loss. In this case the coverage ratio is 20 per cent. If, subsequently, the bank finds, based on indubitable and specific elements, that the €20 is not recoverable and decides to write it off (lowering by that amount both the value of the non-performing loan and of provisions), it will show a coverage ratio of nil. In fact, in both cases, a share equal to 20 per cent of the credit has already been accounted for as a loss in the financial statements.

Our analyses show that write-offs amount to about 5 per cent of the value of the non-performing loans.

¹ For example, when the debtor has been subjected to bankruptcy proceedings or has concluded a debt restructuring agreement valid under the bankruptcy law, or when the conditions laid down by the IFRS/IAS to cancel even part of the credit from the balance sheet have been met.

² The coverage ratio is the ratio of the stock of provisions to total gross non-performing loans; this total, in turn, is the sum of the presumed realizable value of the non-performing loans entered in the balance sheet plus the related provisions.

The Bank of Italy is stepping up its interventions for capital strengthening

Faced with deteriorating macroeconomic conditions and the consequent risks for banks, the Bank of Italy is intensifying its assessment of the adequacy of the provisions made by each bank, taking account of both aggregate variables (system-wide averages, the outlook for the real economy) and individual variables (level of the coverage ratio in the period before the crisis, composition of loan portfolios, types of problems, collateral and personal guarantees, accounting practices). Banks with inadequate coverage ratios are asked to take prompt corrective action.

The exposure to euro-area sovereign risk and foreign assets

The exposure in Italian government securities increases in 2012

In June the Italian banking system's exposure to the domestic public sector amounted to €351 billion (Table 3.2), €110 billion more than in September 2011. The increase was due to banks' purchases of securities early this year, partly connected with the need to temporarily invest the liquidity they had raised through the Eurosystem's two three-year refinancing operations. The purchases, which were widely spread among the individual banks, brought the total stock of securities to €297 billion; they were concentrated in the component with an original maturity of up to three years and recorded mostly in the banking book. The value of medium- and long-term Italian government securities owned by the banks is currently 2.5 per cent higher than in September 2011, the reference date for determining the capital buffer requested by the European Banking Authority for potential losses on sovereign debt valued at market prices.

Table 3.2

**Exposures of Italian groups and banks to residents
in euro-area countries by sector of counterparty (1)**
(billions of euros at 30 June 2012)

| | Public sector | Banks | Financial companies | Households and non-financial firms | Total | As a percentage of the total exposures reported to the BIS (2) |
|--------------|---------------|--------------|---------------------|------------------------------------|----------------|--|
| Italy | 351.0 | 119.3 | 101.1 | 1,412.9 | 1,984.3 | 78.6 (3) |
| Germany | 50.8 | 36.5 | 15.0 | 92.5 | 194.9 | 14.9 |
| Austria | 11.3 | 7.9 | 1.6 | 54.7 | 75.5 | 39.2 |
| France | 2.3 | 18.2 | 3.9 | 6.5 | 30.8 | 3.9 |
| Luxembourg | 0.4 | 4.7 | 10.3 | 4.2 | 19.5 | 4.9 |
| Spain | 4.2 | 3.7 | 3.5 | 6.2 | 17.6 | 4.1 |
| Netherlands | 0.1 | 4.2 | 5.6 | 5.0 | 14.9 | 2.4 |
| Ireland | 0.3 | 1.5 | 6.2 | 0.5 | 8.5 | 2.7 |
| Portugal | 0.4 | 0.4 | 0.2 | 0.6 | 1.6 | 1.3 |
| Greece | 0.0 | 0.1 | 0.0 | 0.6 | 0.8 | 1.3 |
| Other (4) | 4.7 | 2.0 | 1.3 | 18.0 | 26.0 | 3.9 |
| Total | 425.5 | 198.5 | 148.7 | 1,601.7 | 2,374.4 | |

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

(1) Exposures to "ultimate borrowers", gross of bad debts and net of write-downs. BancoPosta and CDP are excluded. – (2) As a percentage of the total foreign exposures to each country in March 2012, reported to the BIS by a large group of international intermediaries. – (3) Exposure of Italian banks to resident customers; the difference with respect to 100 is given by the lending of foreign groups and banks to Italian customers via establishments in Italy and cross-border transactions. – (4) Slovenia, Slovakia, Belgium, Finland, Cyprus, Malta and Estonia.

Exposure to debtors resident in Greece, Ireland, Portugal and Spain is modest (1.2 per cent of total exposures to euro-area residents). Indirect exposures, held through claims on foreign banks which in turn are exposed to those four countries, are also very small, both in absolute terms and by international comparison.

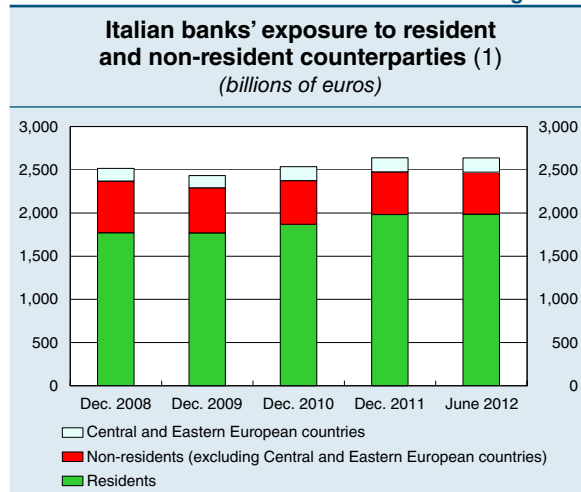
Exposure grows to Central and Eastern European economies with good prospects but elements of financial fragility

Exposure increased slightly towards the countries of Central and Eastern Europe (Figure 3.8), characterized by financial fragility (primarily in connection with the large share of their debts in foreign currency) but still with favourable macroeconomic conditions. In recent months the risks in the region were attenuated by the confirmation, at the beginning of 2012, of the so-called Vienna Initiative.⁶

Italian banks follow conservative policies

Impaired claims on counterparties in Central and Eastern Europe amounted to 10.4 per cent of total assets in the region in June 2012. The two largest Italian banking groups maintained a high ratio of annual value adjustments to outstanding loans (an average of 1.72 per cent), and they followed especially conservative policies where credit risks were greatest (in Ukraine and Hungary value adjustments came to respectively 4.88 and 4.24 per cent of lending). In mid-2012 the non-performing-loan coverage ratio was comparable to that of the end of 2011 (above 45 per cent).

Figure 3.8



Source: Supervisory statistical reports.

(1) End-of-period exposures in loans and securities to bank and financial counterparties, governments, households and firms; does not include intragroup exposures.

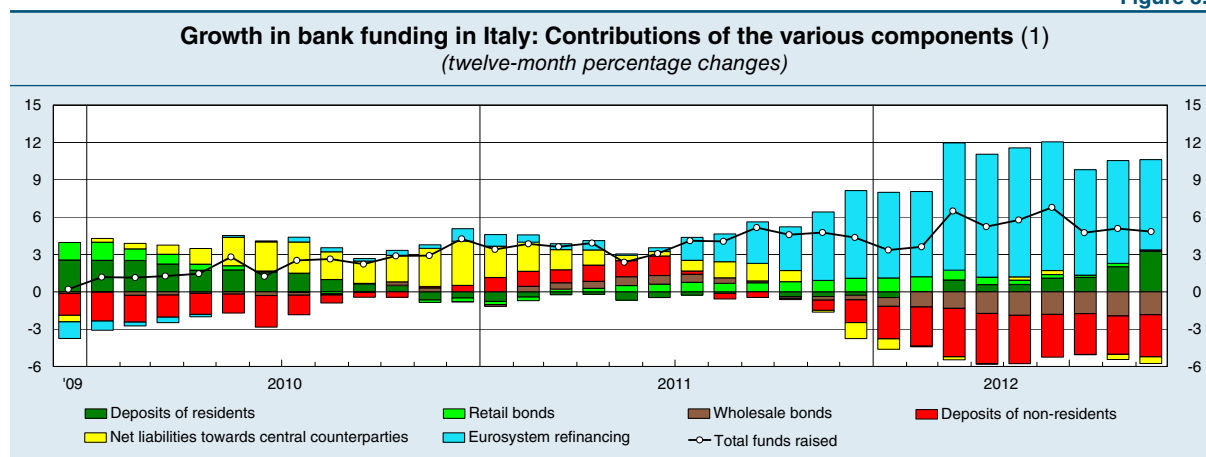
⁶ The Vienna Initiative, launched in 2009, promotes cooperation between authorities to prevent a large-scale withdrawal from the region on the part of EU-based cross-border banking groups.

3.3 BANK FUNDING, LIQUIDITY RISK, REFINANCING RISK

Retail funding continues to grow

The latest available data (for September) put the twelve-month rate of growth in Italian banks' total funding at 4.8 per cent (Figure 3.9). The growth was mainly due to recourse to the Eurosystem's longer-term refinancing operations. An increasing contribution has come from retail funding (residents' deposits and bonds subscribed by households), which rose at a twelve-month rate of 5.3 per cent.

Figure 3.9



There are signs of improvement in foreign and wholesale funding

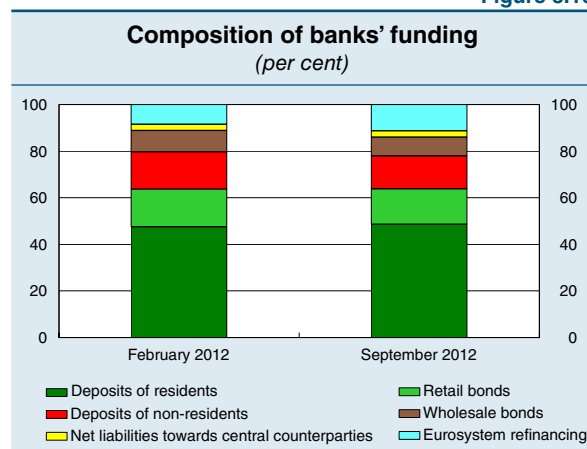
The contribution of wholesale funding has stabilized. Its twelve-month variation remains negative, however, still reflecting both problems of accessing international markets and the sharp drop in the (mainly interbank) deposits of non-residents between the summer of 2011 and the first few months of 2012. Since July, with the attenuation of sovereign risks, the major Italian banks have resumed issuances on international markets. The top five groups placed commercial paper and certificates of deposit (totalling €8 billion), unsecured bonds (€8 billion) and covered bonds (€2.6 billion). The issues came as spreads declined steadily but were still high (an average of 335 basis points), in part reflecting their relatively long maturity and the fact that some were subordinated liabilities.

Net of the domestic interbank component, at the end of September 64 per cent of banks' funding consisted of retail fundraising from residents (deposits and bonds), 11 per cent of Eurosystem refinancing, and the rest of wholesale funding, mainly deposits of non-residents – virtually all interbank – and bonds (Figure 3.10).

The funding gap narrows and the average cost of funding declines

The contraction of lending and the expansion of retail funding enabled Italian banks to reduce the share of lending financed by wholesale funding still further, to 16 per cent (see

Figure 3.10



the box “The funding gap of Italian banks”). The average cost of funds came down by more than 20 basis points between February and September, to 1.4 per cent. The rates on residents’ deposits and bonds were stable.

THE FUNDING GAP OF ITALIAN BANKS

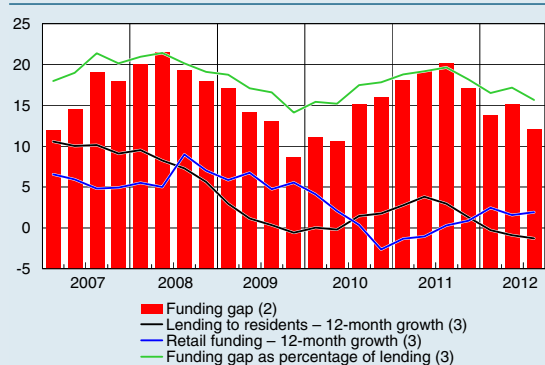
In situations of instability, reliance on wholesale funding (interbank funds, certificates of deposit, commercial paper and bond issues) to finance lending exposes banks to liquidity risks, which in fact materialized repeatedly throughout the financial crisis. This is why supervisory authorities and the markets are paying increasingly close attention to banks’ funding gap, i.e. the difference between lending and retail funding (both in absolute terms and as a ratio to lending).

Despite its conceptual simplicity, the use of the funding gap indicator is problematic in practice, especially for purposes of international comparison, because it involves a number of methodological choices that can affect the end results. The data needed to calculate the indicator are not always available in sufficient detail. For one thing, correct measurement should consider lending net of provisions and should include securitized loans repurchased in the form of liabilities issued by the securitization vehicle. Further, in measuring the possible impact of wholesale funding strains on a country’s economy, one should properly count only lending to residents. The data on retail funding should include both residents’ deposits and other forms of retail fundraising (such as bank bonds subscribed by households), while they should exclude liabilities related to securitization operations. Finally, repos with central counterparties should be excluded on both the lending and the funding side.

However, the data provided by the main international institutions (BIS, IMF and OECD) do not permit the calculation of the indicator so described. Not even the ECB’s monthly data on the accounts of monetary financial institutions within the euro area, highly harmonized and detailed as they are, allow correct international comparison. In particular, they lack data on the amount of bank bonds placed with retail investors (in Italy this amount is substantial, representing a quarter of the funding gap) and on loan loss provisions, which in Italy exceed €50 billion.¹

Figure A

Composition of Italian banks’ funding gap (1)
(billions of euros, per cent, twelve-month changes)

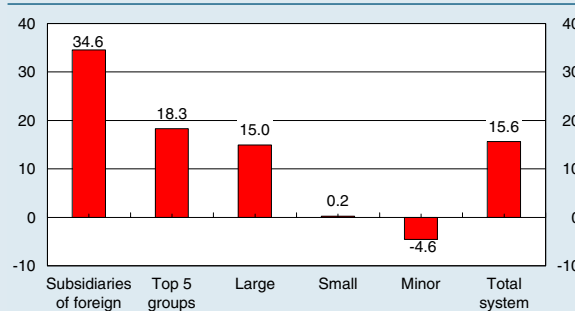


Source: Supervisory statistical reports.

(1) Excludes Cassa Depositi e Prestiti and branches of foreign banks. – (2) Right-hand scale, billions of euros. – (3) Left-hand scale.

Figure B

Funding gap by category of bank, September 2012 (1)
(per cent)



Source: Supervisory statistical reports.

(1) Excludes Cassa Depositi e Prestiti and branches of foreign banks.

¹ The ECB’s Statistical Data Warehouse also lacks other information essential to the construction of internationally comparable indicators. For example, not all countries release figures on the amount of deposits related to securitizations or on repos with central counterparties. Accordingly, the measures of the funding gap calculated by market analysts based on this source are imprecise.

Since mid-2008 the funding gap of Italian banks has diminished, albeit with fluctuations (Figure A).² The deterioration that took place during the phase when sovereign debt tensions emerged has been recouped in recent months, thanks to the strong growth in retail funding at a time of contraction in lending. The funding gap indicator now stands at 16 per cent (€240 billion). The differences in the indicator between classes of bank are correlated with their ability to access wholesale funding markets (Figure B). The largest gap is that of the subsidiaries of foreign banks, which finance about a third of their lending from sources other than retail funding from residents, for the most part transfers from the parent bank. Excluding these foreign intermediaries, the overall funding gap for the Italian banking system is reduced to 13 per cent (€185 billion).

² This analysis excludes foreign bank branches and Cassa Depositi e Prestiti (CDP). The funding gap of the foreign bank branches is extremely wide, because their liabilities consist largely of transfers from their parent bank; that of CDP, whose liabilities consist almost exclusively of postal deposits, is practically nil.

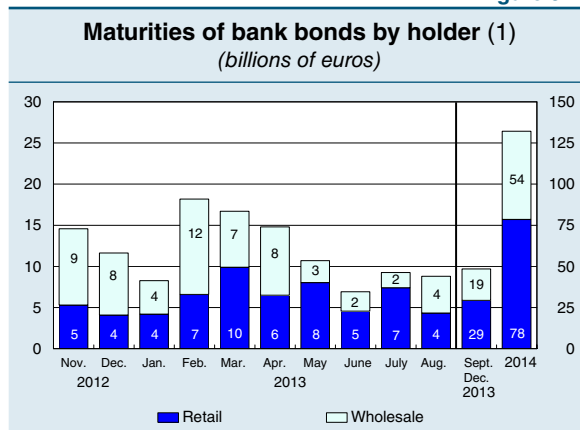
Refinancing risk diminishes ...

A total of €78 billion in bonds issued on the wholesale market by the 33 Italian banking groups subject to the Bank of Italy's weekly liquidity monitoring will mature by 2013 (Figure 3.11). This is much less than the volume of liquid assets acquired by Italian banks as a result of the Eurosystem's three-year refinancing operations. What is more, eventual liquidity strains can be dealt with by further recourse to the central bank, given the banks' substantial holdings of unencumbered eligible assets.

... and although the portion of encumbered assets has risen ...

Recurrently in recent months, difficulty in accessing the market for unsecured wholesale funding (interbank funds, commercial paper, certificates of deposit) has led banks to resort increasingly to collateralized funding, committing a growing share of their assets to repos and to the Eurosystem. For the banks subject to weekly monitoring, total secured funding rose to €397 billion in October 2012 from €280 billion a year earlier. Collateral facilitates funding, but its use could also heighten counterparties' perceptions of risk for the banks that have a large proportion of encumbered assets, impeding the return to unsecured funding. For Italian banks the proportion is modest overall (see the box "Italian banks' liquidity position and asset encumbrance").

Figure 3.11



Source: Data for a sample of 33 banking groups subject to period monitoring of their liquidity position by the Bank of Italy.

(1) Data updated to mid-October 2012; excludes government-guaranteed bonds pursuant to Decree Law 201/2011. Values to the right of the black line, right-hand scale.

ITALIAN BANKS' LIQUIDITY POSITION AND ASSET ENCUMBRANCE

The financial crisis has heightened markets' perceptions of counterparty risk, prompting a significant increase in the share of collateralized transactions on the wholesale markets and a corresponding decline in the portion of unencumbered bank assets, those to which unsecured creditors can resort in case of default. The main types of collateralized funding sources that give rise to such asset encumbrance include covered bonds, asset-backed securities and repos. The Bank of Italy has recently measured the level of encumbrance at 24 banks that hold over 85 per cent of total system assets. Data as of December 2011 indicate average encumbrance of 22 per cent, with slightly lower values for the smaller than for the larger banks, which make greater recourse to the wholesale funding

market.¹ Overall, asset encumbrance is relatively modest. About half of it is related to refinancing operations with the central bank, while the other half stems from various forms of collateralized wholesale funding. The unencumbered portion consists of assets eligible as collateral for Eurosystem refinancing (mostly government securities and loans) and ineligible assets. The latter consist in loans to households not used as collateral for ABS or covered bonds, other loans (too low in quality or too small, demand loans, non-performing loans) and other ineligible securities (equity, low-rated securities). These assets would be available to creditors in the event of a bankruptcy proceeding.

Asset encumbrance is also influenced by the way in which banks obtain liquidity from the central bank. The ratio of the nominal value of the loans used to back covered bonds and ABSs to the liquidity obtained ranges from 150 to 180 per cent; it is slightly lower for covered bonds than for ABSs. The ratio is affected both by the requirements of rating agencies, which impose a certain degree of overcollateralization in order to keep a security's rating unchanged, and by the haircuts applied by the Eurosystem. The two parameters tend to increase as the sovereign risk of the country where the bank is located increases, a characteristic that has proven particularly disadvantageous to Italian banks during the crisis.

¹ The indicator excludes own-use bonds with government guarantees (pursuant to Decree Law 201/2011) and structured securities kept on banks' balance-sheets, where they are not pledged as part of collateralized financing operations.

... the liquidity position is improving

The liquidity position of the sample of 33 banks monitored weekly is improving (Figure 3.12), benefiting from the easing of the sovereign debt market strains. Another contributory factor, especially for the major banks, is the lengthening of funding maturity and the restitution of a portion of the margins posted against repo contracts.

3.4 INTEREST-RATE RISK AND MARKET RISK

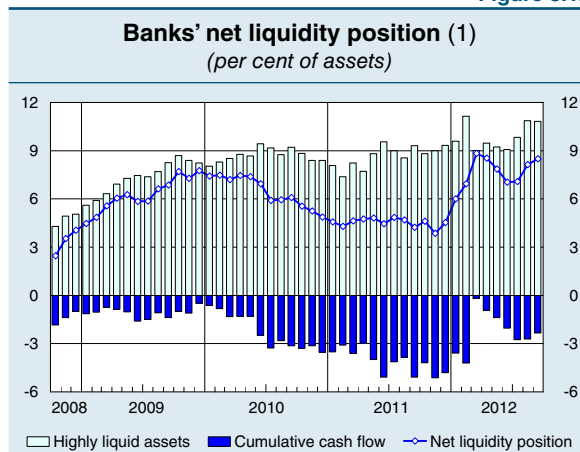
The exposure to interest-rate risk is limited

Italian banks continue to have limited exposure to unexpected movements in the risk-free yield curve according to the method suggested by the Basel Committee (a parallel shift of 200 basis points over the entire yield curve). The data provided by 13 banks that use internal models to measure this risk exposure show that a rise in yields of 200 basis points would result in a loss of 7.7 per cent of regulatory capital, as against the 20 per cent warning threshold established by the Committee. This result combines two opposite effects. On the one hand an increase in the rates would have a positive impact on credit intermediation activity, thanks to the different speed of re-pricing of assets, mainly indexed loans, and liabilities. However, this effect would be more than offset by the decrease in the value of long-term fixed-rate assets, above all government securities.

There is a slight reduction in market risk

Italian banks' exposure to market risk, proxied by the performance of the VaR used by six large banking groups in valuing their trading and investment portfolios, is falling, albeit with some fluctuations (Figure 3.13). Following

Figure 3.12

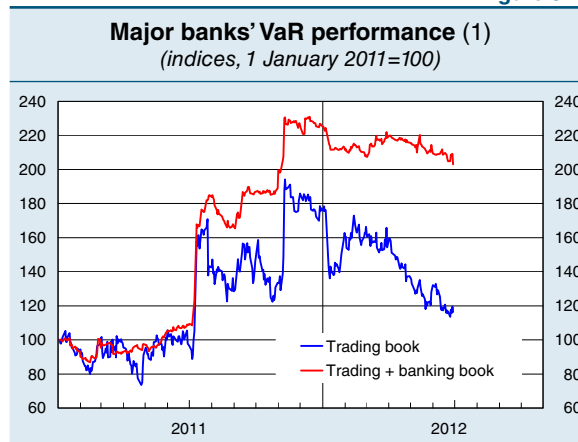


Source: Data for a sample of 33 banking groups subject to periodic monitoring of their liquidity position by the Bank of Italy.

(1) Averages. The net liquidity position is calculated as the (positive or negative) difference between holdings of assets eligible for use as collateral for Eurosystem refinancing operations and cumulative expected cash flow. The time frame is 1 month; on prudential grounds it is assumed that there is no roll-over of maturing obligations vis-à-vis institutional counterparties.

the easing of financial market tensions, the banks have sold part of the long-term sovereign debt held in their trading books; the overall maturity of the book has therefore been shortened and the amount of VaR reduced. Market risks for the entire securities portfolio (which includes both the trading book and the securities held for investment purposes in the banking book) has also diminished, but by less. Among other things, this is due to the classification of recently purchased government bonds in the available-for-sale portfolio: this practice, which is shared by many large European banks, follows the significant increase of capital requirements against assets held in the trading book determined by the transition to Basel 2.5.

Figure 3.13



3.5 BANKS' CAPITAL AND PROFITABILITY

The capital strengthening of the main groups proceeds

In the first half of 2012 the capital base of the fourteen main listed banking groups was strengthened, especially as regards the core tier 1 component. The improvement came both from the substantial recourse made to fresh equity and from the larger contribution of self-financing compared with the first half of 2011; the capital gains arising from the buyback of hybrid capital instruments had a limited impact.

Risk-weighted assets have declined significantly. The major groups continued to shift their portfolio towards assets with more favourable weighting factors. Some of them have completed the switch to internal models for the calculation of capital charges or expanded the scope of their application, thus completing a process initiated some time ago, subject to Bank of Italy supervision and deemed useful by the EBA for the purpose of complying with its recommendation on capital.

By June 2012 the core tier 1 capital of the fourteen main listed banking groups had risen on average to 10.2 per cent of their risk-weighted assets, from 8.8 per cent in December 2011 (Figure 3.14). Their tier 1 and total capital ratios were respectively 10.8 and 13.8 per cent.

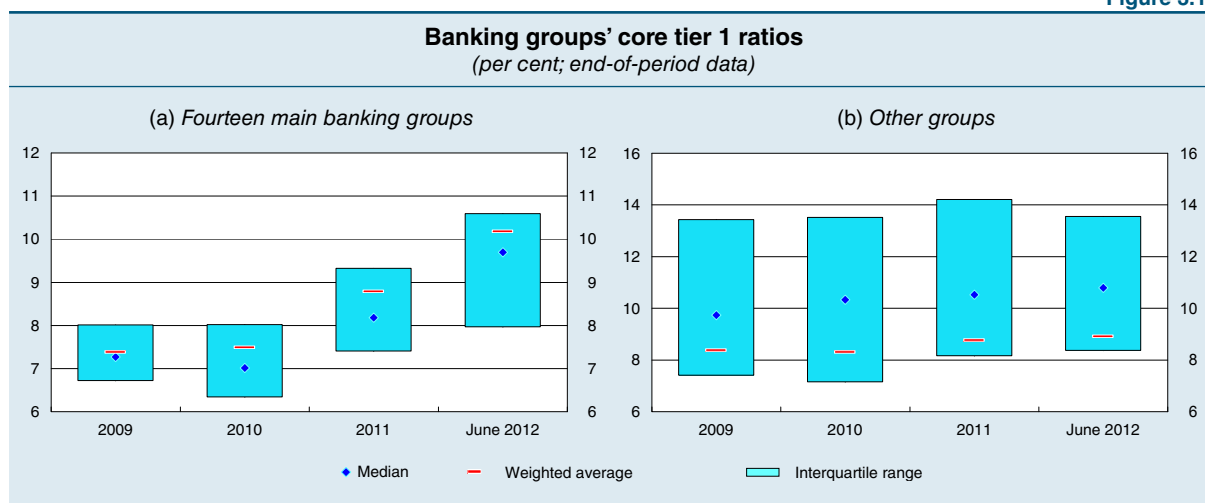
By international standards Italian banks' ratios are lower but so is their financial leverage

The capital ratios of the main Italian groups remain slightly below those of the major European banks, which in several cases benefited from large-scale public support. However, financial leverage, measured as the ratio of total balance-sheet assets to tier 1 capital, is lower for Italian intermediaries – 18 as against a European average of 24 at the end of 2011 (Figure 3.15). The different indications deriving from the international comparison of capital ratios on the one hand and financial leverages on the other are largely due to the differences in the determination of risk-weighted assets in relation to total balance-sheet assets (see the box “The risk-weighted assets of Italian banks”).

The EBA's recommendation

Three of the four Italian banking groups that in December 2011 the EBA had recommended should strengthen their capital bases (UniCredit, Banco Popolare

Figure 3.14



Source: Consolidated supervisory reports.

and UBI Banca) have done so by increasing their own funds.⁷ The capital strengthening of the fourth group (Banca Monte dei Paschi di Siena) required an intervention by the Government, which in June of this year authorized the Ministry for the Economy and Finance to subscribe new financial instruments up to €2 billion; the operation should be completed by the end of the year.

Profitability is low; the short-term outlook remains uncertain

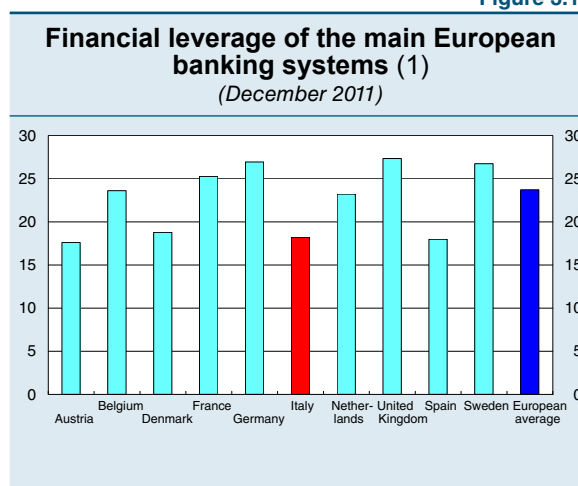
Excluding extraordinary items connected with write-downs of goodwill, in the first half of 2012 the annualized return on equity (ROE) of the fourteen main listed banking groups was 3.5 per cent, as against 4.7 per cent in the first half of 2011. Net interest income decreased by 2.2 per cent. Non-interest income increased by 2.6 per cent: the growth in income from trading, which mainly occurred in the first quarter, more than offset the contraction in net fee income. The ROE of the other banks remained stable at 2.8 per cent. All banks suffered from the sharp increase in loan losses, which on average eroded more than half of their operating profit.

Expectations of banks' profitability have stabilized close to the low levels reached last March. According to analysts, the earnings per share of the five largest groups will remain small this year and next, with only modest growth from 2014 onwards.

Cost cutting continues

The fourteen main listed banking groups are continuing to pursue policies aimed at curbing costs and rationalizing their distribution networks. In the first

Figure 3.15



Source: ECB Consolidated banking data.

(1) Ratio between total balance-sheet assets and tier 1 capital.

⁷ The EBA requested the main European banks to constitute, where necessary, an exceptional and temporary capital buffer against their exposures to sovereign issuers so as to bring their core tier 1 ratio to 9 per cent, after valuing their sovereign exposures at the end of September 2011 at market prices (see the "Final report on the fulfilment of the EBA recommendation on banks' capital").

six months of this year their operating costs decreased by 2 per cent and their cost/income ratio by about one percentage point to 60 per cent (compared with 67 per cent for the main European banks), partly as a result of a reduction in staff costs.

THE RISK-WEIGHTED ASSETS OF ITALIAN BANKS

Recent reports by market analysts show that the ratio of banks' risk-weighted assets (RWAs) to balance-sheet assets varies considerably from one country to another and among banks within the same country. This dispersion raises doubts about the reliability of RWAs as the measure of the risk actually borne by the individual banks and hence about their capital ratios, i.e. the ratio of regulatory capital to RWAs. This is because differences in RWAs may be due in part to factors not directly related to the riskiness of the underlying assets, such as heterogeneous accounting practices or supervisory standards.

Analysts often base their comparisons across financial institutions on the ratio of RWAs to total assets, partly because the data needed to make this calculation are readily available and partly because the indicator is a synthetic proxy of prudential metrics. However, such comparisons can be misleading. To begin with, RWAs include operational risk, which finds no direct counterpart among a bank's assets; the ratio is therefore only directly comparable in the case of banks specializing in the same business. Furthermore, total assets does not include off-balance-sheet items, although these do affect RWAs. Even considering only credit risk, a correct comparison should also take into account the effects of different methodologies for calculating RWAs – whether standardized or advanced – and differences in balance-sheet composition.

Recent research at the Bank of Italy¹ shows that the RWA differences between Italian banks are largely explained by the differences in their business model. Focusing on credit risk only, in order to obtain a homogeneous basis for comparison, the study finds that in December 2011 the average ratio of RWAs to total exposure was 51 per cent, with a range of variation of 76 percentage points (from a maximum of 91 to a minimum of 15 per cent). It emerges that 38 percentage points of the dispersion are due to differences in balance-sheet composition, 20 points to differences in the use of the advanced methodologies for the calculation of capital requirements (at the same date, five groups used the IRB method) and 10 points to other factors not linked to banks' estimates of risk parameters. Consequently, at 8 percentage points, the unexplained part remains fairly small.

The lack of comparable data makes it impossible to study the determinants of international banks' RWAs in sufficient depth. However, preliminary research based on a sample of European banks suggests that the RWAs differences are caused only in part by differences in riskiness. In fact, at the end of 2010 the ratio of RWAs to total assets, which averaged 40 per cent, had a range of variation of some 60 percentage points. Considering only credit risk, and including off-balance-sheets assets in the denominator, the range is about 40 percentage points. The remaining portion of the dispersion might also be explained – apart from differences in the use of advanced methodologies and in balance-sheet composition – by differences in supervisory practices between jurisdictions, such as the validation criteria for banks' internal models.

The issue of RWA differences between banks is also being examined by ad hoc working groups set up by the EBA and the Basel Committee.² Their mandate is to identify and minimize the portion of RWA variability not attributable to actual differences in the risk borne by banks. The first results of this stream of research will be published in the coming months.

¹ See F. Cannata, S. Casellina and G. Guidi, "Inside the labyrinth of Basel risk-weighted assets: how not to get lost", Banca d'Italia, *Occasional Papers*, No. 132, 2012.

² Notably the EBA's Task Force on the Consistency of Risk-Weighted Assets (TCOR) and the Basel Committee's Standards Implementation Group – Banking Book/Trading Book (SIG-BB/TB).

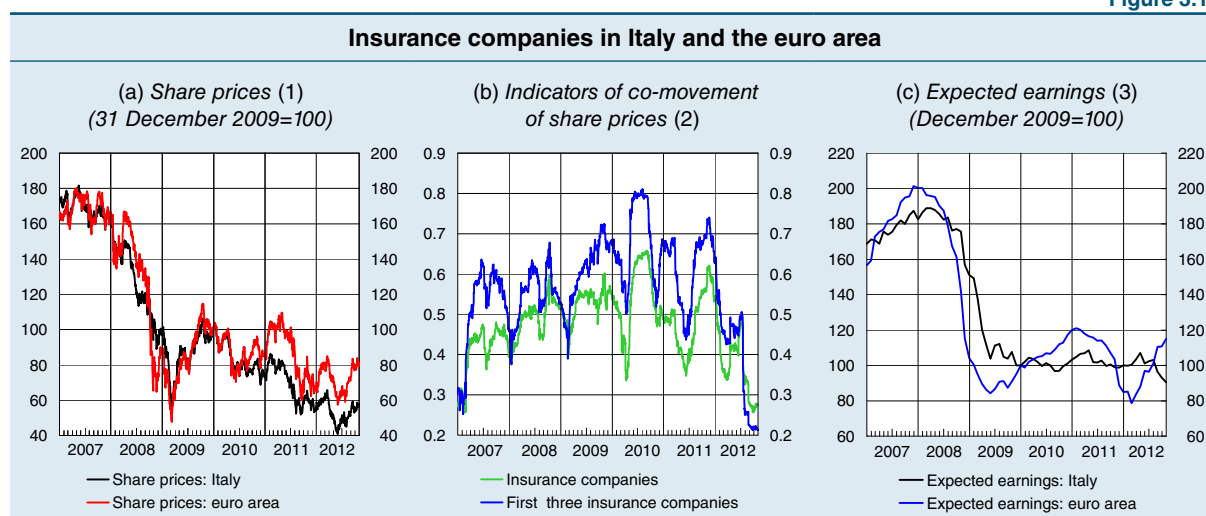
3.6 INSURANCE COMPANIES

The market's assessment

Market indicators are improving, but uncertainties remain

The improvement in financial conditions in the euro area has been reflected since the summer in a rise in the share prices of the main Italian insurance companies (Figure 3.16.a) and a reduction in common risk factors (signalled by the decreased correlation of equity returns; Figure 3.16.b). The industry is still marked by elements of fragility: analysts' earnings forecasts have been revised downwards with respect to the end of last year (Figure 3.16.c), the expected default rates implied by share prices have increased, and the revisions of the main rating agencies have generally been downwards.

Figure 3.16



Sources: Based on Thomson Reuters Datastream and I/B/E/S data.

(1) Daily data. Insurance company share indices. – (2) Daily data. Simple average of the correlations between yields on shares of pairs of insurance companies calculated on daily data and 6-month moving averages. Insurance companies included in the FTSE Italia All-Share index and the largest three insurance companies, gauged by parent group technical reserves, of those in the index (Assicurazioni Generali, Fondiaria and Unipol). – (3) Average value of expected earnings per share in the 12 months following the reference date. Monthly data. For Italy the data refer to the following companies: Assicurazioni Generali, Mediolanum Assicurazioni, Società Cattolica Assicurazioni, UGF Assicurazioni, Vittoria Assicurazioni; for the euro area the data refer to the companies included in the Morgan Stanley insurance sector index.

Premium income

Premium income suffers from the poor state of the economy and competition from banking products

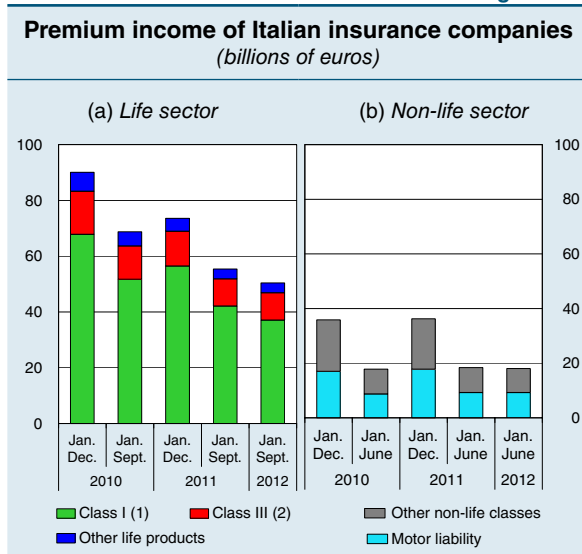
In the first half of 2012 premiums written were down by 8.9 per cent compared with the same period of 2011, mainly owing to the recession. In the life sector the fall in premium income (Figure 3.17.a), especially large for with-profits and capital redemption contracts, reflected the lesser propensity of the banks to distribute third-party products. In the non-life sector the decline was more moderate; motor liability insurance premiums, which account for about half of total premiums, were unchanged from 2011 (Figure 3.17.b).

Investments and the liquidity position

Sovereign risk is still a factor

The sovereign debt crisis continues to weigh on Italian insurance companies because of their substantial holdings of Italian government securities with a long term to maturity (Figure 3.18). Their corporate bond portfolios, consisting mostly of bank bonds with a high rating, are also feeling the strains. In the course of the year insurance

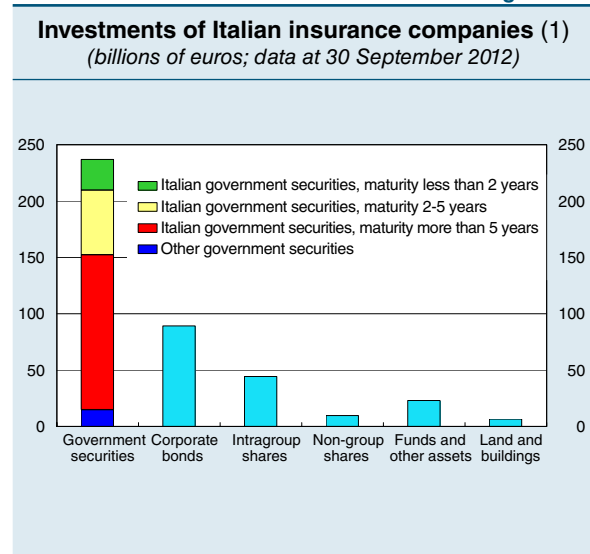
Figure 3.17



Source: ISVAP.

(1) Mostly with-profits policies. – (2) Mostly unit-linked and index-linked policies.

Figure 3.18



Source: ISVAP.

(1) Balance-sheet values. The composition of government securities is partially estimated.

companies slightly increased the share of government securities in their portfolios, reducing the proportion of those with maturities beyond five years.

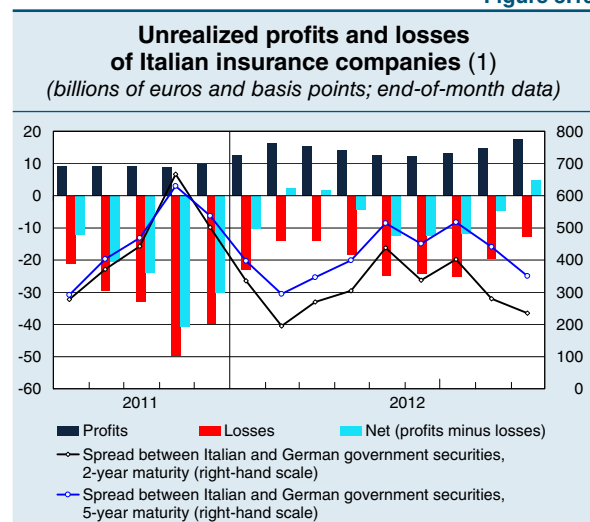
In recent months unrealized losses are reduced

The repercussions of sovereign risk on the balance sheets and capital requirements of Italian insurance companies are mitigated by anti-crisis measures that allow them, after setting aside adequate unavailable reserves, to sterilize the impact of their unrealized losses on debt securities issued or guaranteed by EU member states: these measures will remain in place until the entry into force of the new European prudential regulation (Solvency II). The other main European countries have also introduced measures with similar purposes. In recent months the reduction in the spreads on Italian government securities and the shortening of the average maturity of portfolios have restored a positive balance between unrealized profits and losses (Figure 3.19).

Liquidity risk is limited but growing

Liquidity risk is generally limited, since most liabilities are long-term and provide for early redemption penalties. Nevertheless the risk has grown in the last two years because of the increase in life insurance policy surrenders: in the first nine months of 2012 the outflow of funds exceeded premiums (Figure 3.20). A recent sample survey of Italian insurers shows that liquidity risk is managed mainly by increasing the more liquid asset components and opening bank credit lines to be drawn on in times of need. The survey also found that insurance companies make limited use of financial instruments such as liquidity swaps and of the different forms of short-term funding.

Figure 3.19



Sources: ISVAP and Bloomberg.

(1) Unrealized capital gains and losses represent the difference between market value and balance-sheet value of the securities held.

Profitability and capital adequacy

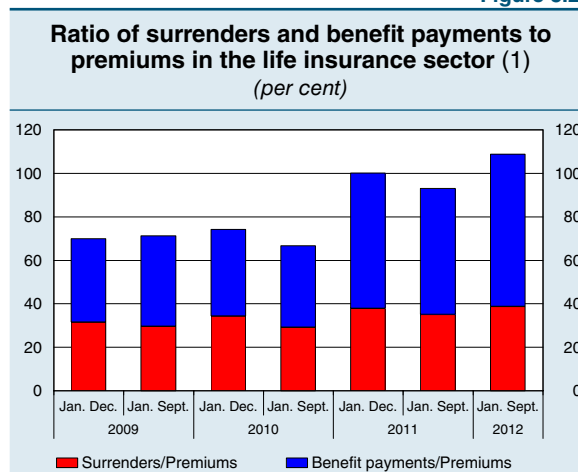
Overall profitability improves ...

The data for the first half of the year show an improvement in insurance companies' profitability, mainly as a consequence of the better result on financial operations. ROE rose to 7.2 per cent in the life sector and 3.5 per cent in the non-life sector, compared with negative returns of 9.3 and 5.0 per cent respectively in 2011 (Figure 3.21.a). In the non-life sector the combined ratio showed a general improvement (Figure 3.21.b), notably for motor liability insurance. This trend could continue as a result of risk-selection policies, price revisions and the containment of the cost of claims, which has been assisted by recent rules on the valuation of biological damage. The new rules introduce stricter standards for valuing minor injuries and should therefore produce benefits in the form of speedier claims payment and an improvement in the valuation of the technical reserves.

... but life sector results are depressed by declining new business

In the life sector operating profits continue to be held down by the negative trend in new business and the increase in surrenders of traditional products. The risks associated with the low level of interest rates are relatively modest: although a large proportion of policies carry a guaranteed minimum return, most of the assets covering the technical reserves consist of Italian government securities that

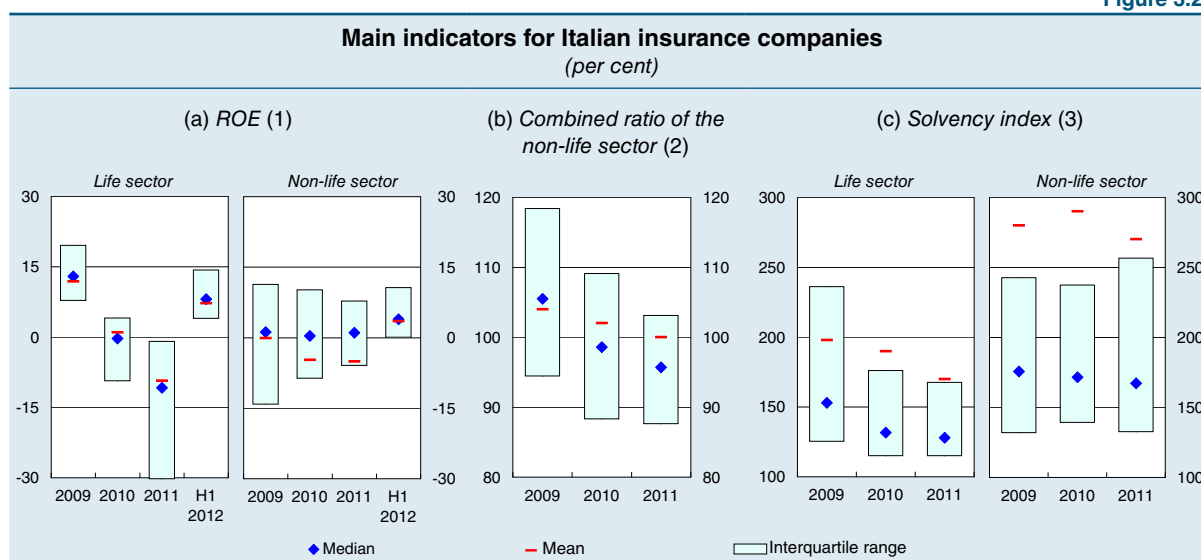
Figure 3.20



Source: ISVAP.

(1) The indices are calculated as the sum of policy surrenders and benefit payments at policy maturity (principal and annuities) in proportion to premium income during the period.

Figure 3.21



Source: ISVAP.

(1) Ratio of earnings to shareholders' equity. The ratio for the first half of 2012 is not annualized. – (2) Ratio of incurred losses plus operating expenses to premium income for the period. – (3) Ratio of regulatory capital to capital requirement. It is calculated for single insurance companies and refers to the Italian market. The high overall averages reflect the presence of companies (for the most part parent companies of conglomerates, including international groups) whose individual solvency ratios are far above the minimum requirement.

offer relatively high returns. Looking ahead, life insurance profitability could benefit from the reduction in unrealized losses on government securities in recent months.

Insurance companies remain well-capitalized

The solvency indicators of the life and non-life sectors are well above the regulatory requirements. At the end of 2011 regulatory capital, though down from the previous year, was still equal to 1.7 times the amount required for the companies of the life sector and 2.7 times for those of the non-life sector (Figure 3.21.c).

Even eliminating the effect of the above-mentioned anti-crisis measures, capital would still be well above the minimum requirement. Data for listed insurance groups show an improvement in capital ratios in 2012, thanks among other things to capital increases amounting to about €2.8 billion. The effects of the anti-crisis measures, capital increases and management decisions aimed at improving the liquidity position have created the conditions for facing further tensions that may arise on the financial markets.

The greatest risks stem from the adverse economic cycle and financial market uncertainties

Overall, the main risks for the Italian insurance industry derive from the protraction of the phase of economic weakness and from the conditions of uncertainty on financial markets. The poor state of the economy, by depressing the rate of growth of premiums and prompting policy surrenders, could further burden the profitability of companies' technical operations and worsen their liquidity position. Premium income will continue to suffer from the competition of bank products. Finally, Italian insurance companies' exposure to sovereign risk remains high.

4 MARKETS, EUROSISTEM REFINANCING AND PAYMENT INFRASTRUCTURES

4.1 THE LIQUIDITY MARKET

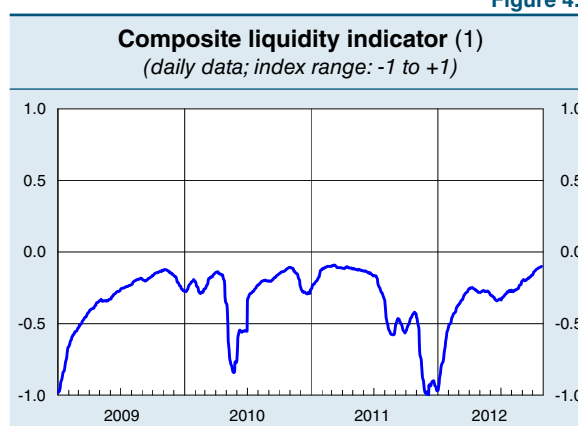
The liquidity of the Italian markets improves

Liquidity conditions are improving on the Italian markets (Figure 4.1), mainly thanks to the progress made by the share market, especially the banking segment, and more recently by the government securities market.

Interbank transactions are still concentrated on the collateralized markets ...

The uncertainty still pervading Italy's financial system has restricted trading to the collateralized segments. On the electronic liquidity markets, Italian and foreign traders have concentrated their transactions on the general collateral and special repo segments (Figure 4.2). By contrast, transactions on the unsecured segment are extremely few, even including Italian banks' one-day OTC contracts, for which estimates are available.

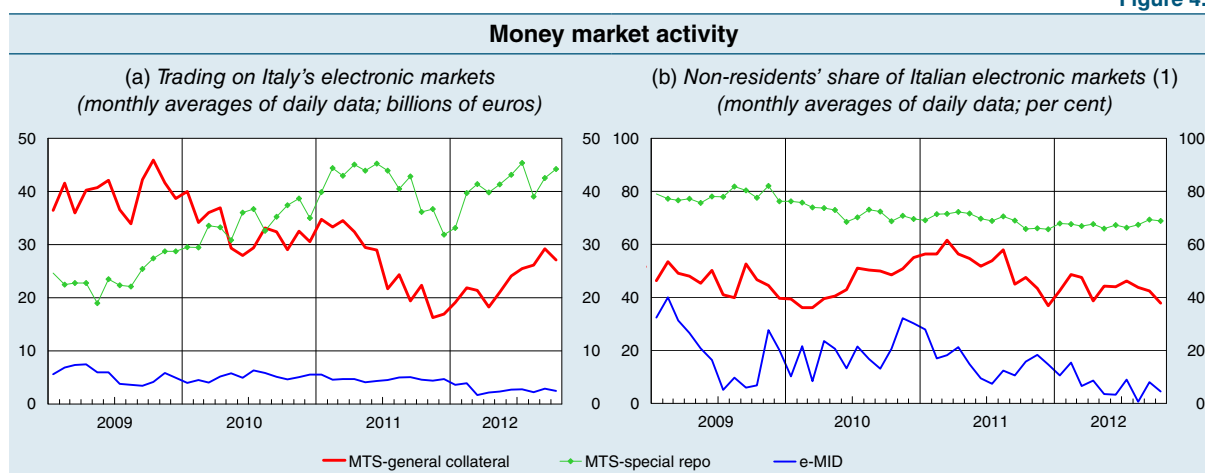
Figure 4.1



Sources: Based on Thomson Reuters Datastream, Bloomberg and Bank of Italy data.

(1) Positive (negative) values indicate higher (lower) liquidity than the average for 1999-2006; 20-day moving averages. For the method of constructing the index, see *Financial Stability Report*, No. 1, December 2010.

Figure 4.2



Sources: Based on e-MID SIM S.p.A. and MTS S.p.A. data.

(1) Based on remote-access trading activity.

... where conditions have become easier for Italian banks

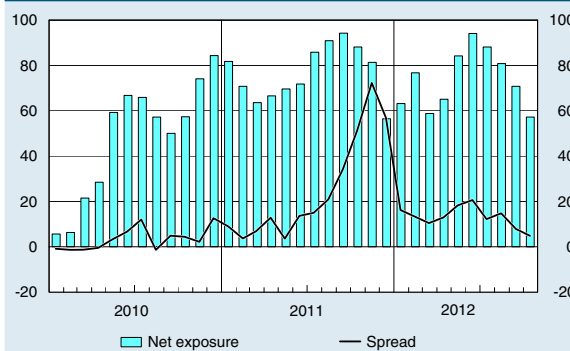
Italian banks are still net borrowers on MTS repo markets (Figure 4.3), but their net exposure has decreased since June, from €94 billion to €57 billion, in conjunction with the revival of issues on the wholesale markets. The cost of liquidity has come back into line with the average on European markets.

The Italian banks connected to TARGET2 have an extremely low intraday liquidity risk thanks to their ability to withstand shocks originating from their counterparties (see the box “The intraday liquidity risk of banks connected to TARGET2-Banca d’Italia”). The policies followed in recent months have avoided strains similar to those that emerged in the second half of 2011, at the height of the Italian sovereign debt crisis.

Figure 4.3

Italian banks’ net debtor position on repo markets and spread against Eurepo (1)

(end-of-month data and monthly averages of daily data; billions of euros and basis points)



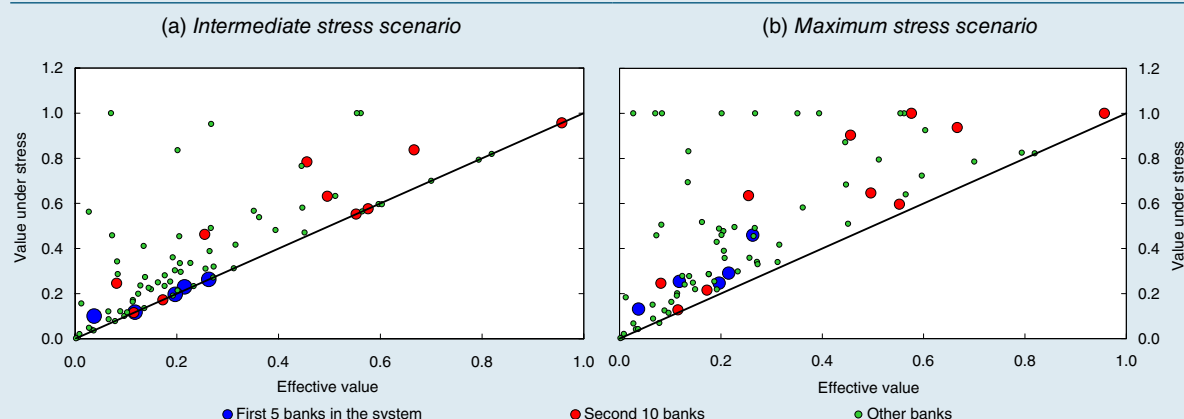
Source: Based on MTS data.

(1) Balance between debtor and creditor positions on the MTS general collateral and MTS special repo markets. Spread between MTS general collateral and Eurepo tomorrow-next rates.

THE INTRADAY LIQUIDITY RISK OF BANKS CONNECTED TO TARGET2-BANCA D’ITALIA

The Bank of Italy periodically runs stress tests on the TARGET2 settlement system to assess the banks’ ability to withstand liquidity shocks. A counter-factual exercise has been conducted for the period July-September 2012 to reconstruct what the intraday liquidity position of each banking group would have been if its main TARGET2 counterparty had been unable to meet its payment obligations for that day. In the first scenario, one of intermediate stress, it is assumed that the recipient bank can cancel all its payments due to the defaulting counterparty during the day. In the other simulation, of maximum stress, it is assumed instead that the recipient bank is obliged to make these payments anyway. The ratio between the value of the maximum net intraday exposure

Italian banks’ intraday liquidity risk (1)



(1) The figures show, for each bank, the ratio between their maximum cumulative net intraday exposure and the liquidity held in settlement accounts (central bank money and available margin on credit lines). Specifically, the 75th percentile of the ratio’s distribution in the period July-September 2012 is shown on the horizontal axis. The same percentile for the ratio calculated in a situation of stress (as explained in the body of the text) is shown on the vertical axis. This ratio is set equal to the effective value when it is lower than the effective value itself and to 1 when it is higher than 1. The simulation has been made for each working day in the reference period and at group level in view of the methods of liquidity management commonly adopted, which provide for flows to be centralized with the parent company.

and the liquidity on deposit with the central bank is then calculated for each scenario and each bank. Panels (a) and (b) of the figure show these ratios, together with the value of the ratio actually recorded. If the banks' liquidity is not affected to a significant degree by the situation of stress, the dots will lie along the 45° slope; the greater the lack of liquidity caused by the stress, the higher up the dots will appear.

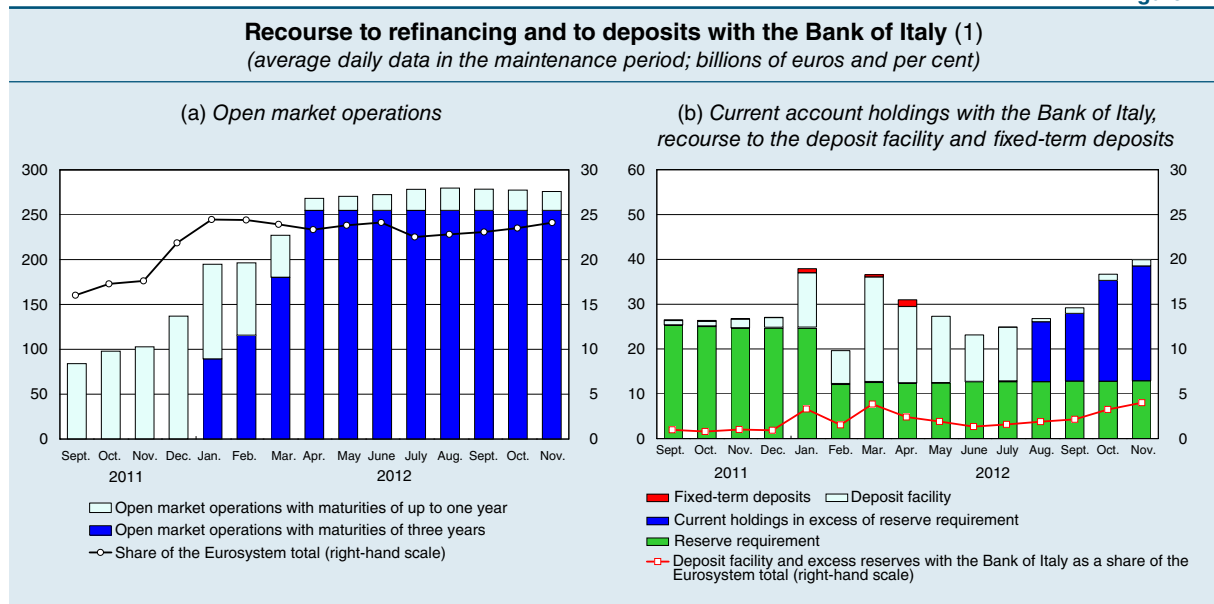
Usually, the banks have more than enough liquid assets on deposit with the central bank to cope with a blockage of inflows from their main counterparty, bearing out the results of similar exercises conducted in the past (see the box "Simulation of the effects on TARGET2-Banca d'Italia of a shock in the interbank market", *Financial Stability Report*, No. 1, November 2010). Under the hypothesis of intermediate stress, more than 95 per cent of banks would be able to make the payments within much the same time frame as that actually observed. That proportion drops to 85 per cent in the worst-case scenario. The banks that would be obliged to postpone making payments or turn to additional sources of liquidity account for a very small share of payments, amounting to 4 per cent of the total in the worst-case scenario and 1 per cent in the best. In both scenarios the repercussions on the functioning of the system would be negligible.

4.2 EUROSISTEM REFINANCING

Italian banks' recourse to the Eurosystem remains stable

In recent months Italian banks' recourse to Eurosystem credit held steady at about €280 billion (Figure 4.4.a); the two three-year longer-term refinancing operations (LTROs) account for 92 per cent of the total. The volume of short-term operations declined slightly following the announcement of Outright Monetary Transactions (OMTs) consisting in sovereign bond purchases on the secondary markets by the European Central Bank, and the attendant improvement in the wholesale markets for bank funding.

Figure 4.4



Sources: Based on ECB and Bank of Italy data.

(1) The date indicated on the x-axis refers to the month in which each maintenance period ends. For the last maintenance period, the average is calculated up to 31 October.

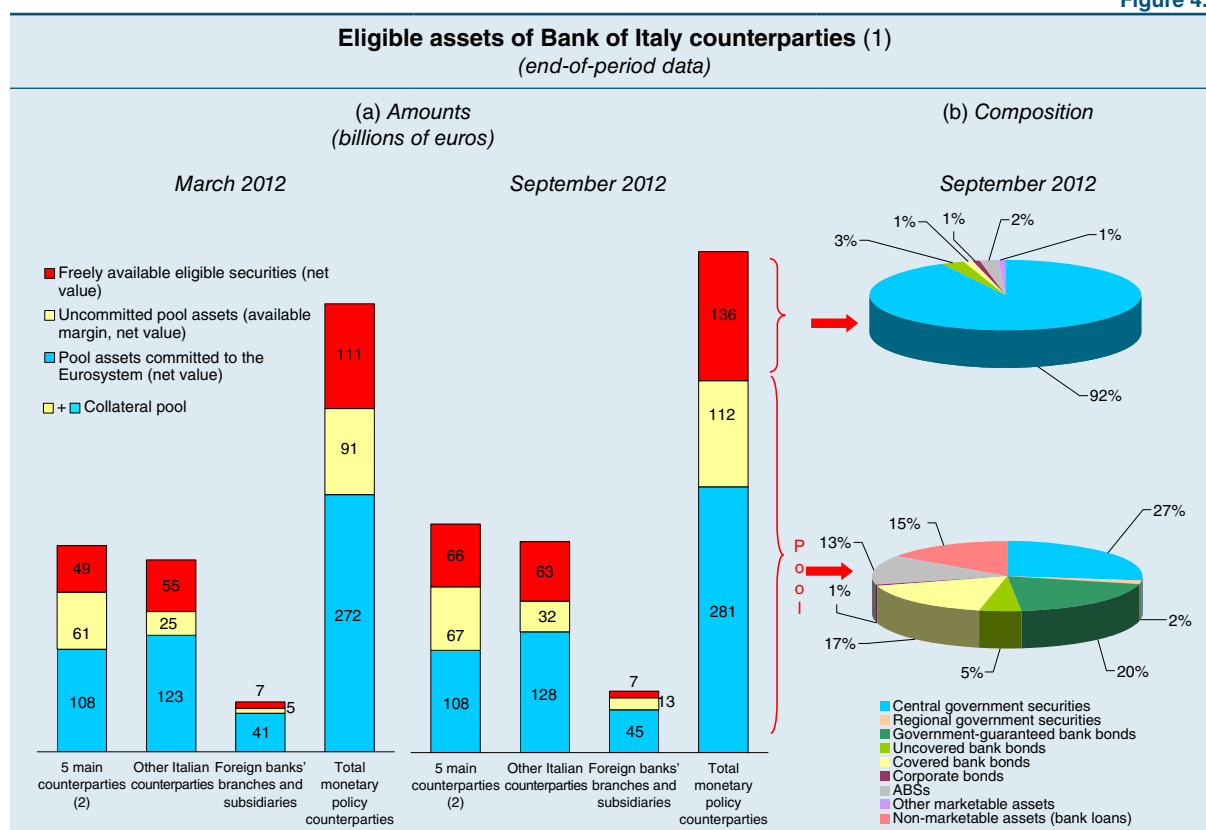
Surplus funds deposited with the Bank of Italy are limited

The liquidity surplus deposited with the Bank of Italy (both current account holdings in excess of the reserve requirements and the deposit facility) gradually increased to €27 billion (Figure 4.4.b).¹ These resources, which are equal to 4 per cent of the surplus funds deposited with the Eurosystem by all the banks in the area, are held by Italian banks for precautionary purposes as other funding instruments near maturity, and in order to have resources available to counter possible liquidity shocks.

The assets in the collateral pool are increasing further ...

The assets deposited with the Bank of Italy as collateral for Eurosystem credit operations (the collateral pool) continued to increase. At the end of September, net of haircuts, they had reached €393 billion, of which €112 in freely available collateral (Figure 4.5.a). Inside the pool, the share of covered bank bonds rose from 11 to 17 per cent of the total (Figure 4.5.b), while that of government securities and government-guaranteed bank bonds declined from 51 to 47 per cent.

Figure 4.5



Sources: Based on supervisory statistical reports and ECB data.

(1) The amount of assets committed to the Eurosystem includes the portion covering interest accrued and dollar refinancing. – (2) Main monetary policy counterparties by volume of assets of the group they belong to.

... in part thanks to the measures to expand collateral in Eurosystem operations

The measures to increase the use of loans (see the box “Measures to expand collateral in Eurosystem operations,” in *Financial Stability Report*, No. 3, April 2012) also permitted small and medium-sized intermediaries, which had little possibility of recourse to other instruments such as asset-backed securities and covered bonds, to

¹ After the last reduction in the Eurosystem official rates, decided on 5 July, it is now indifferent for banks to maintain funds on the reserve account or on the deposit facility, given that the return in both cases is equal to zero. The Italian counterparties have almost completely replaced recourse to the deposit facility with deposits of funds on the reserve account.

access Eurosystem credit. The lowering of the minimum credit rating for ABSs (to BBB-) has so far translated into a €5.4 billion increase in Italian banks' collateral and there are margins for further increases. In order to strengthen the measures recently adopted to expand collateral, the Bank of Italy, in line with other national central banks, decided to lower the minimum threshold for the eligibility of a credit claim from €500,000 to €100,000.

A survey conducted on a representative sample of banks shows how the decision to pledge loans as collateral is carefully weighed against a variety of factors, such as funding conditions, the operational costs of mobilizing loans, the impact of the haircuts applied to curtail the risks run by the central bank, and the availability of liquid assets. The use of loans as collateral is held back by the widespread recourse made in Italy to technical forms of credit (such as demand loans) which do not meet the Eurosystem's eligibility requirements. Banks declared their willingness to carry out a joint examination of potential solutions.

Freely available collateral remains substantial Uncommitted eligible securities held outside the pool are estimated at €136 billion, net of haircuts, of which government securities continue to make up the largest share (92 per cent). At the end of September, banks were accordingly able, where necessary, to increase their refinancing with the Eurosystem rapidly by a further €248 billion. For just under one third of the counterparties, which together hold 26 per cent of the system's assets, freely available eligible assets amounted to less than half the refinancing already obtained.

The lowering of credit ratings poses the main risk to eligible collateral Freely available collateral provides safety margins in the event of renewed tensions on the liquidity front. The haircuts envisaged for securities rated A or higher are currently applied to Italian government securities.² It is estimated that if all the agencies were to cut their rating below A-, the decline in the value of the collateral in the pool, as a result of the larger haircuts, would be around €30 billion. In this situation, any lack of liquidity for individual banks could be countered by using government securities outside the collateral pool (whose value for security purposes would fall by around €6 billion overall due to the downgrade), increasing the volume of ABSs and pledging more loans thanks to the new eligibility criteria.

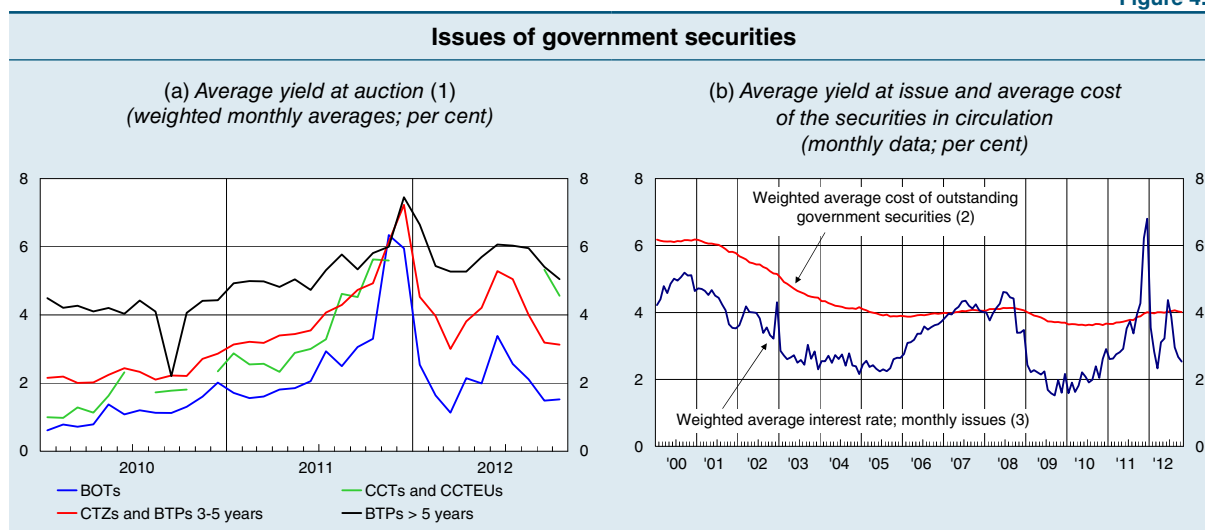
4.3 THE GOVERNMENT SECURITIES MARKET

The primary market continues to work smoothly; the average cost of issues is falling Government securities issuance has proceeded regularly, in line with the Treasury's issue plans. The cover ratio, the relationship between the amounts demanded and the amounts supplied, has always been well above one; for ten-year BTPs it has averaged 1.4 in 2012. In September there was strong demand for fifteen-year on-the-run BTPs, the last issue of which dated back to July 2011. The placement of more than €18 billion of BTP Italias in October confirmed investors' lively interest in Italian government securities. The renewal of confidence was reflected in a significant decline in yields at issue from July onwards (Figure 4.6.a), with the average interest rate on new issues falling to close to 2.5 per cent (Figure 4.6.b).

The residual life of the public debt remains long and the average cost low Calculated on the entire stock of public securities, the average cost of the debt remained at about 4 per cent. One contributory factor was a reduction in the average maturity of new issues, although in the last few months this has come to a halt (Figure 4.7.a). This has led to a moderate shortening of the average residual life of the stock of public debt, the value of which is nonetheless still one of the longest among the main euro-area countries.

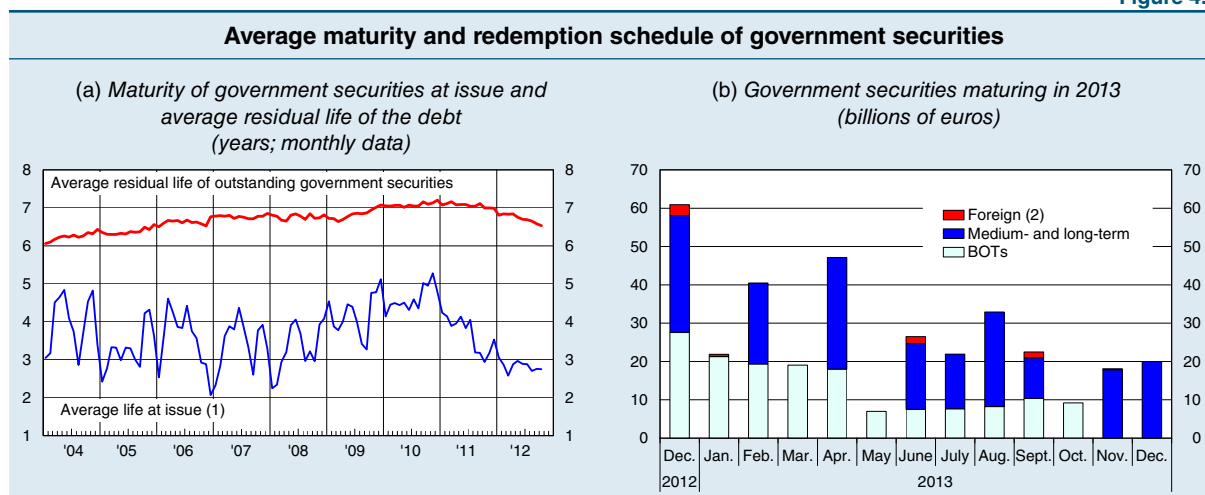
² The Eurosystem establishes a minimum credit rating for accepting assets as collateral. The first-best rule is applied: in the event of there being several ratings, the best available is used. Assets with a lower credit rating are subject to larger haircuts.

Figure 4.6



The volume of securities maturing will be especially large in December 2012 (€61 billion; Figure 4.7.b), a month when the Treasury is nonetheless expected to have a large cash surplus. In 2013 the volume of medium- and long-term securities maturing will be smaller than in 2012 (€155 billion as against €192 billion) and will be more evenly distributed over the year.

Figure 4.7



The secondary market for government securities is showing signs of improvement ...

The liquidity of the MTS secondary government securities market began to improve in the summer (see the box “The efficiency of the secondary market in government securities”). In the BTP segment the bid-ask spread narrowed and, starting in September, there was a gradual increase in the volume of trading (Figure 4.8). The upturn in activity also involved the BondVision market, which serves institutional clients, thanks above all to the purchases of domestic non-bank investors; the volume of BondVision trading sometimes exceeded that on the MTS Cash market.

THE EFFICIENCY OF THE SECONDARY MARKET IN GOVERNMENT SECURITIES

Turnover in Italian government securities on domestic electronic markets remained significant even in the moments of greatest tension, ensuring the efficiency and transparency of price formation.¹

A liquid market is able to absorb high-value orders easily, without significant effects on prices. To assess the efficiency of MTS, the impact of high-value orders (buy and sell orders of €20 million) on the quoted prices of benchmark ten-year securities was measured for the period from January 2010 to September 2012.

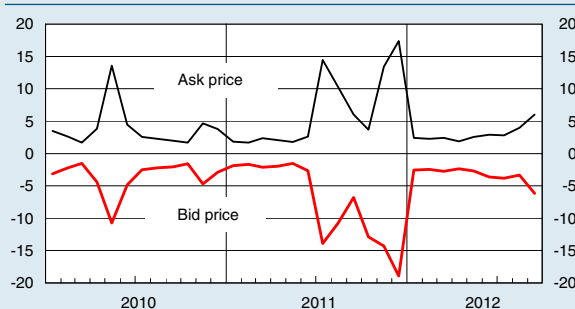
The results show that the impact was limited: entering a buy (sell) order caused prices to rise (fall) by an average of 5 basis points in the period considered (Figure A). The impact was relatively modest (and symmetrical) even in the phases of greatest tension: for example, the impact on prices was 14 basis points in May 2010, when the Greek crisis provoked instability on the other euro-area government securities markets, and 18 basis points in the second half of 2011, when Italian sovereign debt came under pressure. In addition, the phases of high price sensitivity to volumes offered tended to unwind rapidly.

The liquidity of trading on the spot market benefits from the smooth operation of the securities lending market, which enables sellers to quickly gain possession of the financial instrument they have sold and need to deliver. For Italian government securities, most lending takes place in the special repo segment, which recorded a markedly high volume of trading even during the phases of turbulence (Figure 4.2). A securities loan can originate both from short-selling, whose aim is to profit from a fall in prices, and from normal yield arbitrage, also carried out by means of trades of securities with different maturities.

To assess the motive for special repo transactions, the volume of loans of BTPs (which account for more than 70 per cent of total securities lending) was set in relation to the order flow recorded in the spot market

Figure A

Impact of high-value orders on the prices of benchmark ten-year securities quoted on MTS Cash (1)
(monthly data; basis points)

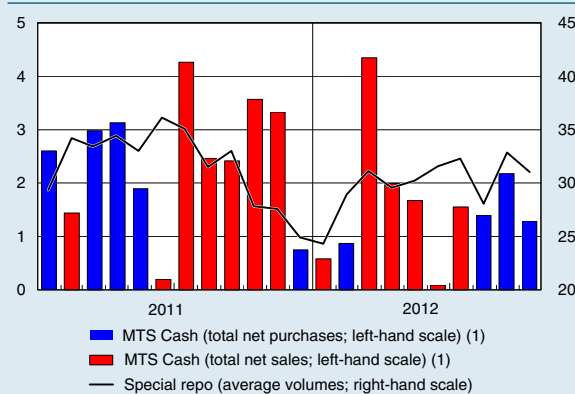


Source: Based on MTS S.p.A. data.

(1) The simulations were conducted using orders worth €20 million, which represented four times the average value of transactions in the reference period and 0.5 per cent of the total value of trades.

Figure B

Net purchases and sales and loans of BTPs
(monthly data; billions of euros)



Source: Based on MTS S.p.A. data.

(1) In each month, trades initiated by buy (sell) orders net of those initiated by sell (buy) orders on MTS Cash.

¹ Surveys of specialists in Italian government securities indicate that trades are divided roughly equally between the electronic platforms (wholesale and retail) and the over-the-counter market. The regulated wholesale markets – MTS Cash and BondVision – handle about 30 per cent of total trading; MTS Cash accounts for more than 70 per cent of the interdealer transactions concluded on the electronic markets.

for the same type of securities. In general, the trend in securities lending is positively correlated with the emergence of buy- or sell-side pressures in MTS Cash (Figure B). The taking of bearish positions appears to have been the main reason for loans of BTPs between the second half of 2011 and the spring of 2012, when sales of securities prevailed in the spot market. Sales subsequently died down, giving way to net purchases during the summer, when the main impulse to special repo trading came from movements of the yield curve and from the consequent reallocation of portfolios.

The European regulation on short-selling – Regulation (EU) No. 236 of the European Parliament and of the Council of 14 March 2012 – entered into force on 1 November. Among other things, the regulation introduced the obligation to report net short positions and placed some restrictions on short-selling of government securities. Its impact on MTS Cash should be limited by the exemption envisaged for market makers and primary dealers in government securities.

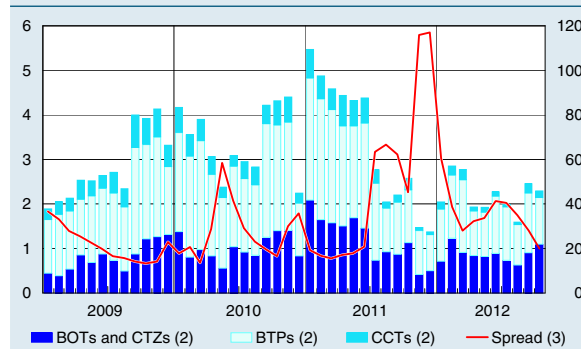
After the summer the proportion of failed transactions remained small, at 2.3 per cent of the total, partly as a result of the system of penalties introduced in September 2011 (see the box “The measures against fails and short selling,” *Financial Stability Report*, No. 2, November 2011).

... and non-residents' demand appears to be recovering

Although the volatility of the premiums for sovereign risk in the euro area remain high, from the second quarter of 2012 onwards there have been signs of a resumption of net purchases of Italian government securities by non-resident investors (see the box “Non-residents' demand for Italian government securities”).

Figure 4.8

Bid-ask spread and trading volume on MTS (1)
(monthly data; billions of euros and basis points)



Source: Based on MTS S.p.A. data.

(1) The spread is measured as the simple average of the bid-ask spreads observed during the trading day for all the BTPs listed on MTS. – (2) Volumes traded on MTS; left-hand scale. – (3) Bid-ask spread; right-hand scale.

NON-RESIDENTS' DEMAND FOR ITALIAN GOVERNMENT SECURITIES

Between mid-2011 and mid-2012 foreign investors made very substantial disposals of Italian government securities. According to financial accounts data, the portion held abroad fell from 52 to 41 per cent of the total stock. Not counting foreign investment funds and individually managed portfolios attributable to Italian savers, the foreign-owned share fell from 47 to 33 per cent (Figure A). Excluding also the securities held by the Eurosystem under the Securities Markets Programme (net of those held by the Bank of Italy), whose amount is based on market estimates, the foreign-owned portion of Italian government securities fell by 19 percentage points to 28 per cent.

Beginning in the second quarter of this year, there have been signs of renewed interest in Italian government securities on the part of foreign investors. Their net disinvestment diminished in April and gave way to net purchases in May and June, concentrated mainly on medium- and long-term paper (Figure B, panel a). Since then, the pattern suggests that the trend of foreign demand has been determined by changing perceptions of the solidity of the EMU. In July and August there was modest disinvestment, followed in September by further substantial net

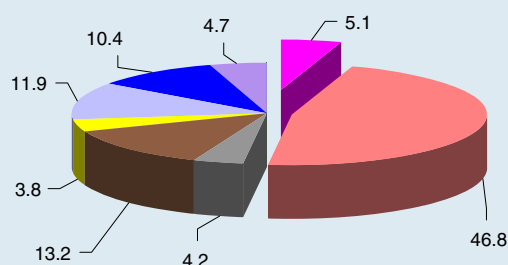
Figure A

Italian government securities: Distribution by holder and type of security

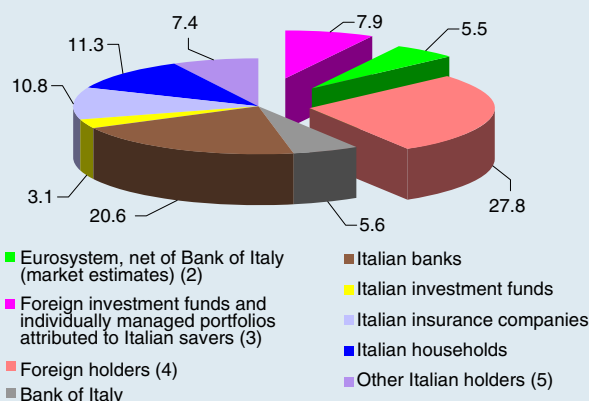
(end-of-period data; per cent)

(a) Distribution by holder (1)

June 2011



June 2012



■ Eurosystem, net of Bank of Italy (market estimates) (2)

■ Foreign investment funds and individually managed portfolios attributed to Italian savers (3)

■ Foreign holders (4)

■ Bank of Italy

■ Italian banks

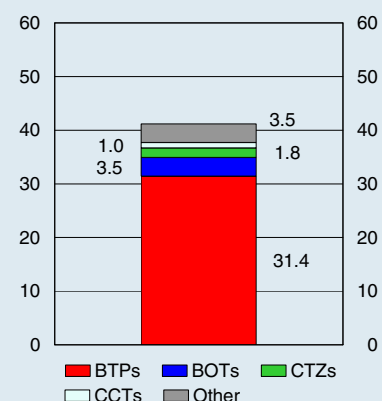
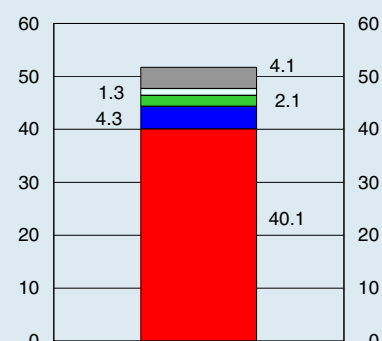
■ Italian investment funds

■ Italian insurance companies

■ Italian households

■ Other Italian holders (5)

(b) Distribution of non-residents' holdings by type of security (6)



1) Financial accounts data. Shares calculated at market prices, net of securities held by the Italian general government sector. The shares held by non-residents are shown separately. – (2) Market estimates of Italian government securities held by the Eurosystem (net of those held by the Bank of Italy) under the Securities Markets Programme. – (3) Investment funds and individual portfolios managed by foreign institutions but attributable to Italian savers. Partially estimated. – (4) Net of investment funds and individual portfolios managed by foreign institutions but attributable to Italian savers and of holdings of the Eurosystem (excluding the Bank of Italy). – (5) Non-financial companies, pension funds and other classes of investor. – (6) Distribution of all the Italian government securities held by non-residents (also shown separately in the pie chart, left). The distribution is estimated on the basis of balance-of-payments data at face value. "Other" includes Republic of Italy issues (2.3 per cent in June 2012), local government securities (0.8 per cent) and residual items (0.4 per cent).

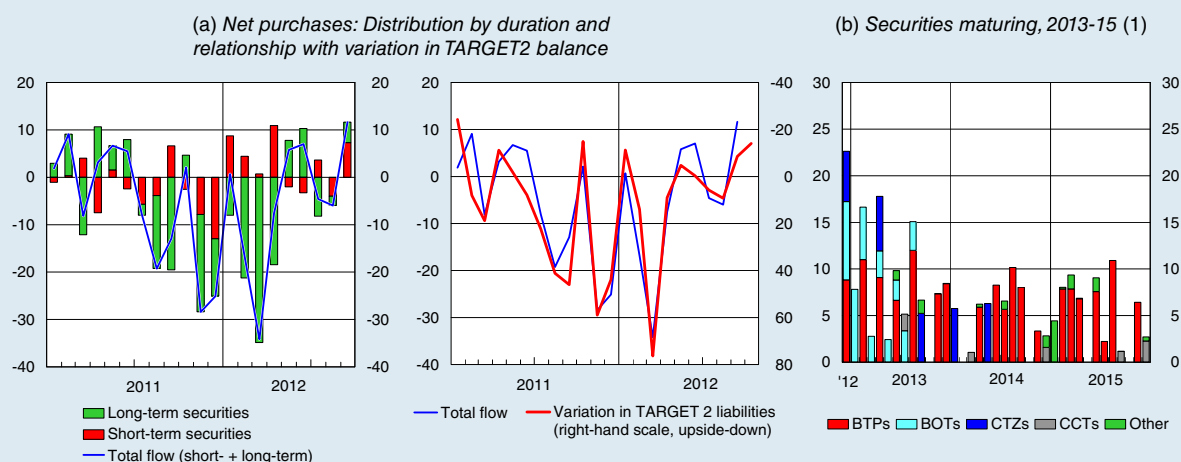
purchases; in October the TARGET2 balances showed a continuation of the upturn in non-resident demand.¹

According to the data available in August, foreign-held securities worth €100 billion will mature in 2013 (of which BOTs and CTZs account for €41 billion; Figure B, panel b), or 41 per cent of the total amount falling due. Any decline in the portion of securities going to non-residents could be

¹ Recent trends in the Bank of Italy's TARGET2 balance have mainly reflected net disposals of Italian government securities by non-residents and the decline in foreign funding by Italian banks (see M. Cecioni and G. Ferrero, "Determinants of TARGET2 imbalances" in Banca d'Italia *Occasional Papers*, No. 136, 2012). The close correlation during this period between foreign disinvestment in Italian government securities and the variation in the balance suggests that the bank funding determinant has stabilized, so that the trend in the TARGET2 balance can provide indications concerning net foreign demand for Italian government securities, the data on which are available with a two-month lag.

Figure B

Non-residents' holdings of Italian government securities (monthly data; billions of euros)



(1) Redemptions calculated on the basis of the stock of securities held by non-residents at the end of August 2012. "Other" includes Republic of Italy issues, local government securities and residual items.

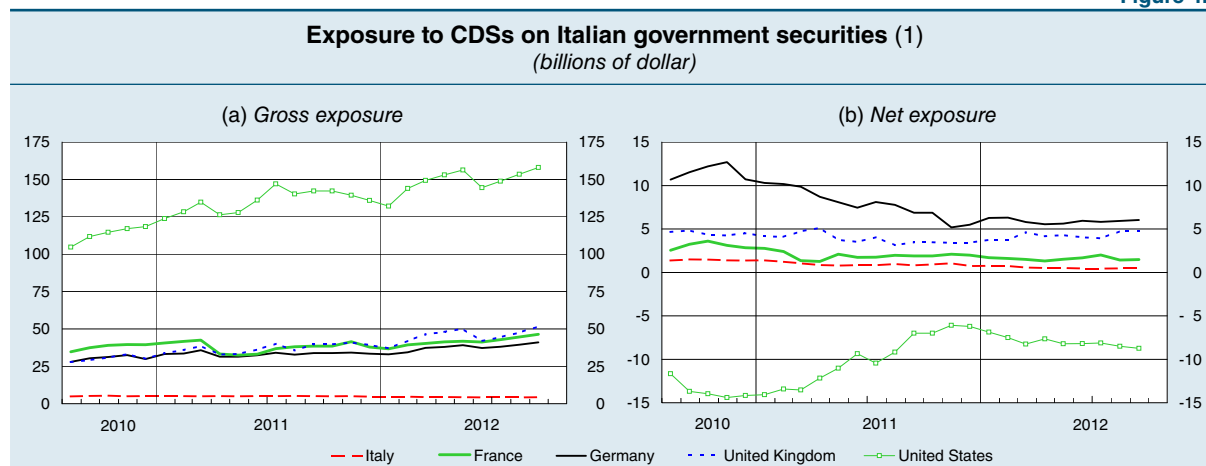
amply offset by increased purchases by Italians, households in particular, which in the past held a much larger share of their financial wealth in the form of Italian government securities.

4.4 THE MARKET IN CREDIT DEFAULT SWAPS

Italian banks' CDS exposure remains marginal

Italian intermediaries have very small CDS positions, both gross and net (sales less purchases), vis-à-vis Italian government securities (Figure 4.9). At the end of September their net exposure amounted to \$0.5 billion and in no case exceeded

Figure 4.9



Source: Based on Depository Trust & Clearing Corporation (DTCC) data.

(1) CDS positions of financial companies of the countries specified. In panel (b), positive (negative) values indicate net sales (purchases) of protection against default risk. The net exposure of each country is calculated as the algebraic sum of the net exposures of residents (on an ultimate parent basis) to Italian government securities.

0.03 per cent of a bank's total assets. Italian intermediaries also have limited exposure to CDSs on the government securities of Spain, Ireland and Portugal. No Italian intermediary had notional net exposure to the public securities of these three countries of more than 0.05 per cent of its total assets.

On 1 November 2012 the European regulation on short selling entered into force, which introduced, among other things, restrictions on naked sovereign CDSs in order to discourage non-hedging activity.

**Interconnection
measured on the basis
of CDSs is limited**

At the end of September Italian banks had gross CDS exposures towards banks and other intermediaries for a total of \$95 billion, 33 per cent of their total CDS exposure. Some 91 per cent of the financial reference entities had their headquarters in European countries, only 5 per cent in Italy. No Italian institution had a gross CDS exposure to financial reference entities exceeding 4.2 per cent of its total assets (or a net CDS exposure of 0.4 per cent); 95 per cent of the total gross exposure was held by three groups.