BANCA D'ITALIA

EUROSISTEMA

Financial Stability Report

November 2011

Number 2

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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

FOREWORD

The global financial system is being shaken by severe strains. The deterioration of the world growth outlook and increasing risk aversion have heightened investors' concerns for the soundness of heavily indebted issuers, public and private alike. The time horizon for investment has shortened; the preference for low-risk assets has strengthened.

These tensions have affected Italy, inducing a significant increase of its sovereign spreads. In the judgment of investors, the Italian economy is suffering from high public debt and low growth. But Italy can also count on a series of strengths, which are reviewed in this Report: the trend towards the consolidation of the public accounts, the low level of private sector debt, the absence of imbalances in the real-estate market, and limited foreign debt.

The Italian banking system is not a source of instability. Its capital position is sound, and will be strengthened further as part of the initiatives under way at European level. However, the analyses contained in this Report show that the system is feeling the repercussions of the sovereign debt strains and the cyclical economic slowdown. Similar strains are affecting the banking systems of the other main countries, although to a lesser extent.

To regain investors' confidence and achieve the lasting reduction of sovereign risk, to preserve the stability of the financial system, it is necessary to proceed resolutely with the consolidation of the public finances. With equal determination, the impediments to a sustained growth of the economy must be removed. The commitment that Italy has undertaken with the European Union to reduce the public debt and initiate a broad programme of structural reforms must be honoured consistently and rapidly.

Ignazio Visco

November 2011

OVERVIEW

The deteriorating growth outlook has heightened financial tensions

The worsening of the outlook for the growth of the world economy has heightened fears for the soundness of heavily indebted borrowers, public and private alike. The strains have affected the international banking system and given rise to risks to global financial stability. Within the euro area the sovereign debt crisis has spread to Italy and Spain. The difficulties encountered by the authorities in implementing suitable countermeasures against the crisis have played a part.

There are fears that the cyclical weakness may persist …

Fears are emerging that the phase of weakness for the global economy will persist, with possible repercussions on consumption and investment decisions.

… as a consequence of the necessary corrective measures for the public finances …

The main advanced countries are stepping up the necessary effort for the adjustment of their public finances. In the absence of structural reforms to boost expectations of future incomes and sustain demand, however, fiscal consolidation measures applied simultaneously in a number of countries could trigger a downward spiral of declining economic activity and deteriorating public finances.

… of deleveraging in the private sector …

The leverage of households and firms is decelerating or decreasing, especially in economies where debt is at high levels. If excessively rapid and widespread, this trend – necessary though it is – also threatens to depress demand.

… and of the difficulties of the banking sector

In the euro area, the sovereign debt tensions are having repercussions on banks' market evaluations and their ability to raise medium- and long-term funds. In the short term, funds from the Eurosystem allow banks to cope with the illiquidity of the wholesale funding markets, but protraction of the tensions entails the risk of shrinking banks' balance sheets and tightening credit supply conditions.

The debt crisis is the main macroeconomic risk

The debt crisis in Europe is the main risk for the world economy. The scenarios set forth in this Report take account of the aggravation of the crisis in recent months; they posit that the countermeasures already taken, or those to be decided in the future, will prevent the materialization of the worst cases.

Europe needs an overall strategy to resolve the crisis

Towards the end of 2008 and in the early part of 2009 the European authorities intervened successfully to recapitalize banks and guarantee their fund-raising. In today's circumstances the scope for action by the public sector is limited. The banks' difficulties are strictly linked to those of sovereign borrowers. The measures decided by the European Council in October tackle both problems at once by strengthening the European Financial Stability Facility's capacity for action, adopting a new programme for Greece, and preparing a plan for the recapitalization of the largest banks and guarantees for banks' bond issues. The procedures for the implementation of these measures, now being defined, will be of the greatest importance.

The Italian economy has weaknesses, but important strengths as well

In investors' assessments Italy is penalized by its high public debt and above all by slow growth. However, Italy also has strengths, notably the small budget deficit, the low debt of the private sector, the soundness of the banks, and limited foreign debt. The Government forecasts

that over the next three years the ratio of public debt to GDP will be reduced significantly. If the fiscal consolidation targets are met, our calculations indicate that the ratio should come down or stabilize even if interest rates on government securities were to undergo significant increases.

The permanent reduction of sovereign risk will nonetheless require measures to increase the potential for growth, which in the present phase are closely linked with financial stability. Italy's European commitments for effective reform must be swiftly implemented.

The improvement in the condition of firms has come to a halt

Firms are being affected by the weakening of economic activity. Business surveys point to expectations of a decline in levels of activity and a worsening of the terms for access to credit. If these expectations materialize, the financial condition of many firms could worsen in 2012.

The financial condition of households is solid

On the whole Italian households are financially sound. Their indebtedness is modest; their substantial wealth consists largely of low-risk assets. Our analysis indicates that the risk of a significant increase in interest expense is limited. Strains could arise for lower-income households, which hold a very limited portion of bank loans.

The banking system is being affected by the sovereign debt crisis

The difficulties with which the Italian banking system must now contend did not originate within the system. Italian banks' exposure to the countries for which financial support programmes have been instituted is very low in both securities and CDS markets. As in other banking systems, the asset share made up of domestic government securities is significant. In part for this reason the banks' CDS spreads have been following the rising trend of those for Italian sovereign debt.

Credit to the private sector should continue to expand in 2012

Our estimates, which assume the gradual pass-through of the recent rises in government securities yields to banks' lending rates, suggest that the current strong expansion of credit to non-financial firms would weaken slightly in 2012; the rate of growth in lending to households would remain unchanged. If banks' difficulty in accessing the wholesale funding market were to persist, the credit slowdown could become more pronounced.

The new bad debt ratio declines

The flow of new bad debts is decreasing in proportion to outstanding loans, albeit slowly. The outlook remains uncertain, however, with the risk of an upturn, especially in respect of lending to firms.

Italian banks have reduced their foreign exposure; within this aggregate there has been a shift towards the countries of Central and Eastern Europe, which have good growth prospects but also high macroeconomic risk.

Retail funding has increased but wholesale funding has declined

Italian banks' retail fund-raising continues to expand at a steady rate, but the illiquidity of the international capital markets is affecting their overall funding capacity. Their ability to cope with these strains is underpinned by the large share of highly stable retail funding, the absence of maturing government-guaranteed securities, and a balanced, though diminishing, liquidity position.

The sovereign debt tensions have had repercussions on liquidity ...

In the absence of a revival in the wholesale funding markets, Italian banks' recourse to Eurosystem refinancing – which, like that of banks in other leading European countries, has already increased in the past few months – will inevitably expand further. The Italian banking system as a whole can count on very substantial assets eligible as collateral with the central bank.

... and on banks' profitability

Banks' profitability is stable, but the prospects are clouded by developments in the real economy and the strains in the financial markets. The containment of costs will have to play a key role in recouping profitability.

Further capital strengthening is under way

Italian banks have boosted their capital bases significantly this year thanks to their capital increases and retained earnings. This action will continue, as part of European initiatives. Stronger capital buffers will enable Italian banks to withstand shocks and maintain a sound capital position and reactivate wholesale funding.

In the money market, collateralized transactions and those intermediated by the central counterparty predominate

Interbank trading has contracted and been concentrated on the contract types best able to contain counterparty and liquidity risk. For the most part funds are traded through collateralized operations with the interposition of the central counterparty. Within the uncollateralized segment banks continue to have substantial recourse to the OTC market, which handles most of Italian banks' transactions with foreign counterparties.

The government securities market has lost liquidity but has continued to operate regularly

The liquidity of the secondary market in government securities has diminished significantly during the periods of tension. On the primary market the placement of Italian government securities has proceeded smoothly. The cover ratio of demand to supply has consistently been above one, with only occasional slight dips.

The payment and securities settlement systems have operated regularly and with full business continuity.

1 MACROECONOMIC RISKS AND INTERNATIONAL MARKETS

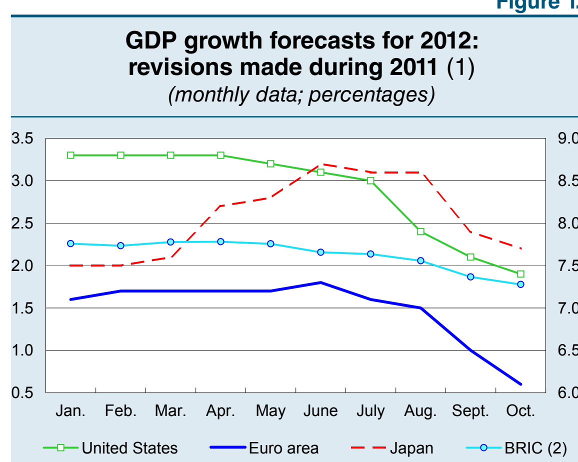
1.1 THE OUTLOOK AND MACROECONOMIC RISKS

The sharply deteriorating growth outlook engenders systemic risks

Since mid-2011 the abrupt and unexpected worsening of the outlook for the world economy (Figure 1.1) has heightened investors' risk aversion and accentuated fears over the soundness of heavily indebted borrowers, public and private alike. Within the euro area the sovereign debt crisis has been exacerbated, spreading to Italy and Spain. The strains have affected the international banking system and brought out risks to global financial stability.

Figure 1.1

GDP growth forecasts for 2012: revisions made during 2011 (1)
(monthly data; percentages)



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.

The cyclical slowdown reflects temporary factors ...

The duration and the depth of the cyclical slowdown are among the greatest sources of uncertainty for the world economy. The economic weakening could turn out to be brief, the product of temporary factors (such as higher oil prices and the earthquake in Japan, with consequent problems in the supply of intermediate goods). The severity of the slowdown could be attenuated by the postponement of increases in monetary policy rates in the main countries and by the measures in support of the economy and banks decided in September and October by the leading central banks (see *Economic Bulletin*, October 2011).

... but a risk of protracted sluggishness has emerged

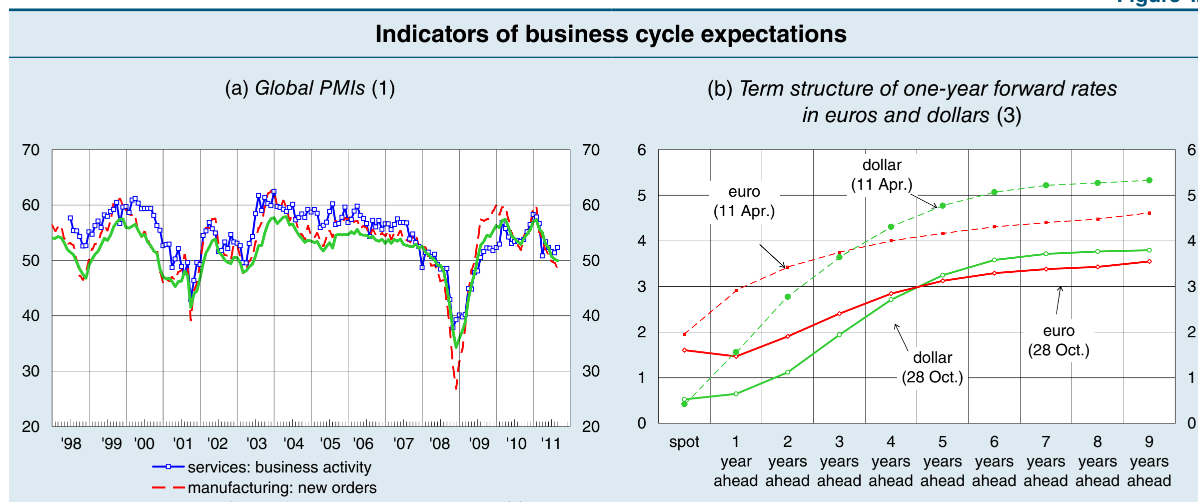
Nevertheless, there is a risk that the cyclical slowdown may be protracted owing to restrictive budgetary policies and the threat of new financial strains. Signs that such fears may be taking root and being incorporated into expectations can be seen in the world Purchasing Managers' Index, which has now come down to levels consistent with a contraction in economic activity (Figure 1.2.a), and in the deterioration of household confidence in the United States and the euro area. The sharp corrections in world stock markets since July and the rapid flattening of the yield curve (Figure 1.2.b) are also consistent with a situation of prolonged economic weakness.

Policymakers' indecisiveness has made for added tension and uncertainty ...

Fears for the sustainability of sovereign debt have been stoked not only by the worsening outlook for growth but also by the hesitancy displayed to date by a number of countries in coming to grips with the crisis. In the United States the difficult compromise in Congress on fiscal consolidation measures and the doubts concerning the substance of some future adjustments have accentuated the

Figure 1.2

Indicators of business cycle expectations



Sources: Markit and based on Thomson Reuters Datastream data.
(1) Monthly data. Indices based on purchasing managers' valuations and referring to global trends in output in manufacturing and services. – (2) Composite indicator of output, orders, employment, purchase prices and inventories. – (3) Percentages; data with reference to 11 April 2011 (dotted lines) and 28 October 2011 (solid lines).

concern over the public finances. In the euro area the main worry is the precarious state of the Greek public finances and economy. In addition, there is scepticism over the effective ability of the European Financial Stability Facility (EFSF) to cope with a deepening of the crisis. The lack of agreement among national authorities and the slowness of the decision-making process, in particular as regards the reinforcement of the EFSF, have also played a role.

At the European summit of 26 October the Heads of State and Government announced measures to restore the proper functioning of the sovereign debt and bank wholesale funding markets: the strengthening of the EFSF's intervention capacity, with the possibility of guaranteeing public securities issues and the creation of a financial vehicle to raise resources from private and public investors and intervene in the securities market or provide support to the banking system; the adoption of a new programme for Greece providing for private investors to bear part of the adjustment cost; and the design of a plan to provide capital and guarantees to banks that takes account of the repercussions of the sovereign debt crisis on their balance sheets.

... and increased volatility and the risk of contagion

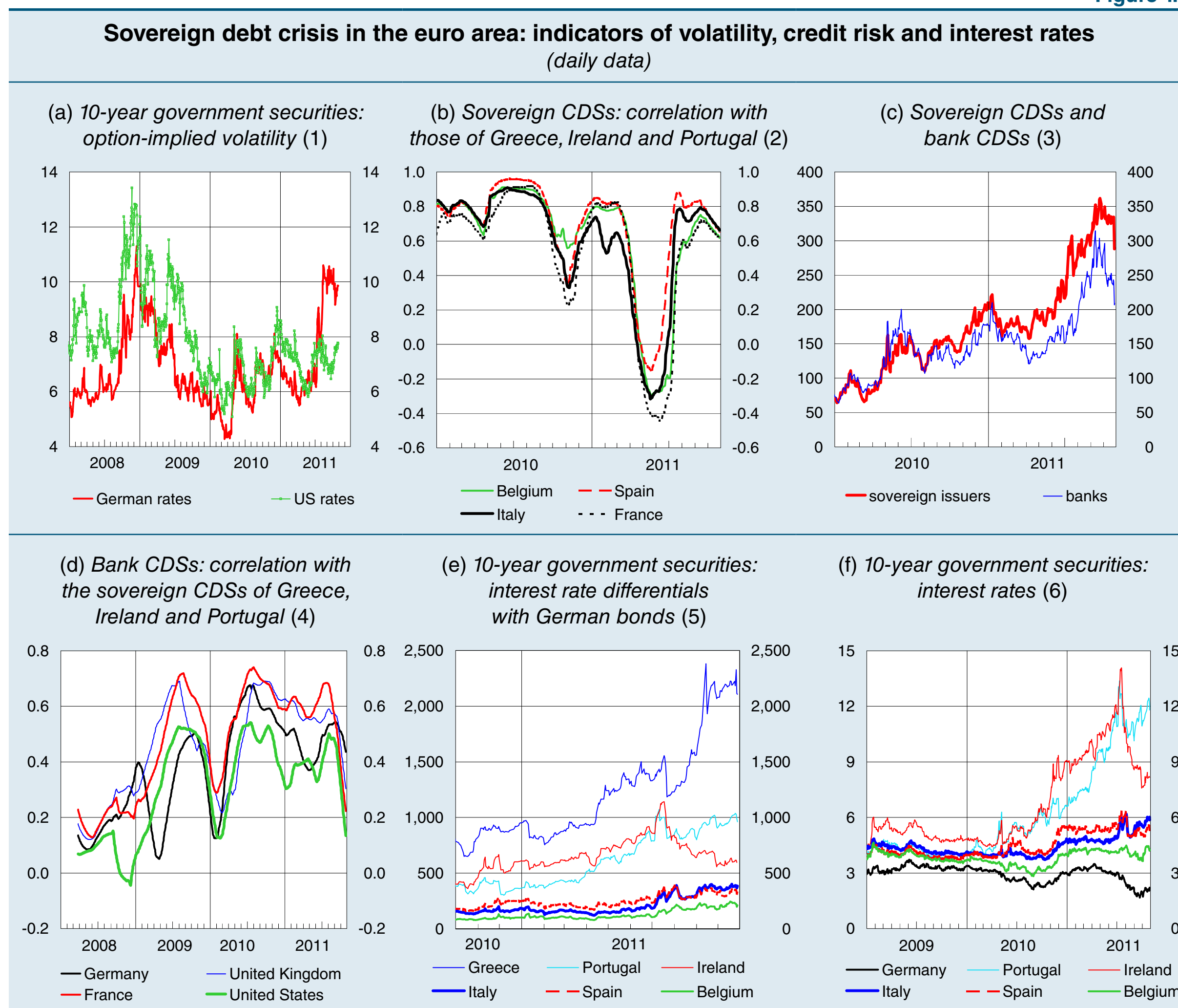
The uncertainty prevailing in the euro-area government securities markets has been reflected in a sharp increase in implied volatility, which has returned to levels not far below those reached on the occasion of the Lehman Brothers collapse (Figure 1.3.a). High risk aversion has provoked a massive portfolio shift towards assets judged to be safer, such as US and German sovereign debt, gold, and the Swiss franc. Widespread sales of reputedly risky assets have increased the threat of contagion, reflected in the growing correlation between sovereign risk spreads within the euro area (Figure 1.3.b). The rise in risk premiums has been transmitted to the banking sector, including banks in the financially soundest countries (Figures 1.3.c and 1.3.d).

Sovereign debt strains are propagated

The risk premiums on government securities, measured as the yield spread over German Bunds, have increased particularly in the countries with high public or private debt and uncertain growth prospects, such as Italy, Spain and, to a lesser extent, Belgium (Figure 1.3.e); there was a slight increase in French spreads in October. However, the impact on the level of interest rates in these countries has been less pronounced (Figure 1.3.f), in that the widening of the spread is partly due to the reduction in the yields on Bunds, which have fallen to exceptionally low levels; moreover Italian and Spanish bonds have benefited from the purchases made

Figure 1.3

Sovereign debt crisis in the euro area: indicators of volatility, credit risk and interest rates
(daily data)



Sources: Based on Bloomberg and Thomson Reuters Datastream data.
(1) Annualized percentage points. Volatility implied in the options on futures listed on Eurex and the Chicago Board of Trade. – (2) For each country, mean of the correlation, calculated on a 6-month moving window, of the spreads on 5-year CDSs of that country with the spreads on sovereign CDSs of Greece, Ireland and Portugal. – (3) Basis points. iTraxx indices for baskets of CDSs on sovereign issuers and investment grade financial issuers (mainly banks). – (4) Three-month moving average of the correlation coefficient (calculated on the basis of a GARCH(1,1) statistical model) between the daily changes in the bank CDS index of the country specified and the daily changes in the average of the sovereign spreads of Greece, Ireland and Portugal. A country's bank CDS index is the average of individual banks' CDS spreads. – (5) Basis points. – (6) Percentages.

by the European Central Bank starting in August. In recent months the risk premiums on sovereign bonds have diminished, instead, in Ireland, where the policies adopted are consistent with the fiscal adjustment plans agreed with the international authorities.

The Italian economy has weaknesses, but important strengths as well

In investors' assessments Italy is penalized by its high public debt and by slow growth, which, to a large extent, reflects the country's progressive loss of competitiveness. In the absence of measures capable of boosting the economy's growth potential, this situation could drag on and, in the long run, increase sovereign risk significantly. However, Italy does have numerous strengths (see the box "The sustainability of the public finances"). Further, our calculations, which take the latest government forecasts (see *Economic Bulletin*, October 2011) as the baseline scenario, show that the debt/GDP ratio should come down or stabilize at current levels even if interest rates on government securities were to undergo a further, sharp increase in relation to recent values (see the box "The dynamic of Italy's public debt").

THE SUSTAINABILITY OF THE PUBLIC FINANCES

The deterioration in global growth projections and the increase in risk aversion have prompted investors to focus much more attention on the level of public and private sector debt, at the expense of analysis of the outlook for issuers' solvency. This development has contributed to more onerous borrowing conditions for Italy, but it does not appear to take full account of the strengths of the Italian economy, such as the prudent conduct of fiscal policy in recent years, the solid financial situation of households and firms, the low level of foreign debt, the absence of imbalances in the real-estate sector, and the soundness of the banking system.

According to the IMF, in the next two years the debt-to-GDP ratio will continue to rise in all the leading countries except Germany and Italy (see table). In Italy, it is expected to begin decreasing in

Financial sustainability indicators

(per cent of GDP)

	Budget deficit (1)			Primary surplus (1)			Public debt (1)		
	2010	2012	2013	2010	2012	2013	2010	2012	2013
Italy	4.6	2.4	1.1	-0.1	2.6	4.1	118.4	121.4	120.1
Germany	4.3	1.1	0.8	-1.8	0.8	1.2	83.2	81.9	81.0
France	7.1	4.6	4.0	-4.6	-2.1	-1.4	82.3	89.4	90.8
Spain	9.3	5.2	4.4	-7.4	-3.1	-2.1	61.0	70.2	72.8
Greece	10.6	6.9	5.2	-5.0	0.8	3.3	144.9	189.1	187.9
Portugal	9.8	4.5	3.0	-6.8	0.1	1.9	93.3	111.8	114.9
Ireland	31.3	8.6	6.8	-28.2	-4.4	-1.5	94.9	115.4	118.3
Euro area	6.2	2.3	....	....	....	....	85.4	....	....
United Kingdom	10.3	7.0	5.1	-7.3	-4.1	-2.2	79.9	84.8	85.9
United States	10.3	7.9	6.2	-8.4	-6.3	-4.6	94.4	105.0	108.9
Japan	9.2	9.1	7.8	-8.1	-7.7	-6.2	220.0	238.4	242.9

	Characteristics of public debt			Sustainability indicators			Private sector debt at end-2010		External debtor position at end-2010	
	Share maturing plus deficit in 2012	Average residual life of government securities in 2011 (years)	Share held by non-residents in 2011 (per cent of public debt) (2)	S2 indicator (3)	Vulner-ability indicator (4)	IMF indicator (5)	House-holds	Non-finan-cial firms	Current balance	Net interna-tional invest-ment position
Italy	23.5	7.2	42.4	2.3	0.41	4.1	45.0	81.1	-3.5	-24.0
Germany	10.5	5.6	50.1	5.0	0.18	4.6	61.6	65.4	5.7	38.4
France	20.8	7.0	57.9	5.5	0.32	7.9	55.1	104.7	-1.7	-10.0
Spain	20.6	6.2	42.1	12.0	0.52	10.4	85.8	140.5	-4.6	-89.5
Greece	16.5	6.9	55.1	....	0.60	19.0	60.7	62.9	-10.1	-95.8
Portugal	22.3	6.0	50.3	....	0.61	13.8	95.2	152.2	-10.0	-107.4
Ireland	13.9	6.2	55.6	15.2	0.48	13.5	119.0	185.9	0.5	-90.9
Euro area	....	....	52.1	6.4	....	....	66.3	101.4	-0.5	-13.4
United Kingdom	14.7	13.9	23.1	9.6	0.41	13.3	114.2	100.1	-2.5	-13.5
United States	30.4	5.1	29.6	....	....	17.0	91.7	74.3	-3.2	-17.0
Japan	58.6	5.8	6.5	....	....	14.3	62.2	96.6	3.6	52.5

Sources: IMF, Eurostat, ECB, European Commission, national financial accounts and balance-of-payments data.
(1) The 2010 data for EU countries are taken from Eurostat's press release of 21 October 2011 and incorporate into the latest revisions to the budget figures and to GDP. The forecasts for 2012 and 2013 (IMF, Fiscal Monitor, September 2011) are based on outturns preceding this latest update. – (2) The euro-area share refers to 2010. – (3) Increase in the primary surplus/GDP ratio (with respect to 2010) 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 evaluations of the latest stability and convergence programmes, which update the figures given in Sustainability Report 2009. – (4) Index built from a broad set of budget and macro-financial variables: a value above the threshold level (estimated, on the basis of past episodes, at 0.51) signals the possibility of a budget crisis; European Commission provisional estimates in Report on Public Finances in EMU 2011. – (5) Increase in the primary surplus/GDP ratio that must be achieved by the end of 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 2010 and 2030.

2013 (in 2012 according to government forecasts) thanks to the substantial deficit reduction planned over the next two years. The resources needed to finance the maturing debt and the new deficit in Italy in 2012 amount to 23.5 per cent of GDP, less than in the United States (30.4 per cent) and Japan (58.6 per cent) and only slightly more than in France and Spain.

Moreover, the traditional indicators of the sustainability of the public debt paint a fairly favourable picture for Italy. For instance, the European Commission estimates that the improvement in the primary budget balance needed to stabilize the debt-to-GDP ratio is 2.3 percentage points for Italy, compared with 6.4 points for the euro area as a whole and 9.6 for the United Kingdom. A similar indicator calculated by the IMF confirms Italy's favourable position also with respect to the United States and Japan. The result for Italy reflects the pension reforms introduced beginning in the 1990s, which have significantly reduced age-related expenditure (when fully phased in they will be 1.5 percentage points of GDP higher than at present, against 3.4 points for the euro area as a whole). Similar results are obtained using an indicator recently developed by the Commission to take account of additional information concerning a country's vulnerability to macroeconomic risks.

The analysis of a country's conditions also entails an assessment of factors not specifically related to the public finances, including the debt exposure of the private sector and the net international investment position. In Italy, the total financial debt of households and non-financial firms amounted to 126 per cent of GDP at the end of 2010, compared with 168 per cent in the euro area, 166 per cent in the United States, and more than 200 per cent in the United Kingdom.

In Italy the share of public debt held by non-residents is 42 per cent, against a euro-area average of 52 per cent. A low share for non-residents is usually regarded positively when assessing sovereign risk, both because domestic investors have a greater propensity to maintain their exposure to their home country and because of the stronger government incentive to honour commitments to domestic creditors.

Italy's net international investment debtor position is equal to 24 per cent of GDP, which is higher than the average for the euro area (13 per cent), but well below the figures for Portugal (107 per cent), Greece (96 per cent), Ireland (91 per cent) and Spain (89 per cent). Italy's balance of payments has worsened since the mid-1990s, mainly on trade, owing to a progressive loss of competitiveness. Our analyses indicate that the current account deficit will diminish considerably over the medium term, reflecting both a more favourable performance of trade volumes and an improvement in the terms of trade, which have been penalized in the last two years by large rises in energy prices.

THE DYNAMIC OF ITALY'S PUBLIC DEBT

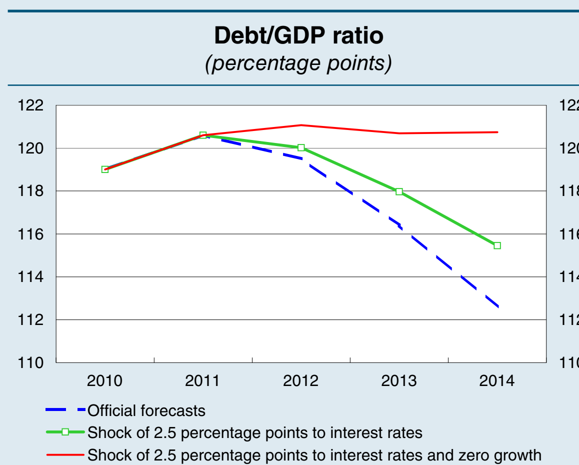
High and excessively volatile yields on sovereign securities can fuel markets' fears for the sustainability of the public debt, especially in economies, such as Italy's, burdened by a high debt/GDP ratio. Simulations taking the Government's latest estimates as baseline scenario nevertheless demonstrate that even if the interest rates on new issues increased significantly, the debt/GDP ratio would decline or stabilize. According to the official estimates, which incorporate the fiscal consolidation measures approved during the summer and the rise in interest rates through September,[1] the debt/GDP ratio would be reduced from 120.6 per cent in 2011 to 112.6 per cent in 2014 (see figure).

To evaluate how this would be influenced by a shock to the cost of fundraising, in a first alternative scenario, from January 2012 the yields on all new issues of government securities are assumed to increase

[1] *Nota di aggiornamento del Documento di economia e finanza*, 2011. Net borrowing is expected to fall from 3.9 per cent of GDP in 2011 to 0.1 per cent in 2013 and improve to a modest surplus of 0.2 per cent in 2014; economic growth is put at 0.7 per cent in 2011, 0.6 per cent in 2012, 0.9 per cent in 2013 and 1.2 per cent in 2014; the average cost of the debt is forecast to rise gradually from 4 per cent in 2010 to 4.9 per cent in 2014, reflecting the rise in interest rates in recent months and economic agents' expectations for the next few years.

by 2.5 percentage points over the baseline. This is an extreme case: in the summer of 2011, during a phase of great financial market instability, the gross yield on ten-year treasury bonds (BTPs) rose by around one percentage point. In a second alternative scenario, the increase in yields also has a negative effect on growth, cancelling it out in the three-year period 2012-14; this hypothesis is consistent with the available estimates on the economic effects of an increase in spreads. Both scenarios use standard budget elasticities with respect to changes in the macroeconomic picture. In particular, a fall of one percentage point in growth reduces the primary surplus by 0.5 points of GDP, [2] and an increase of one percentage point in interest rates increases outlays by 0.2 per cent of GDP in the first year, 0.4 per cent in the second, and 0.5 per cent in the third; the gradual nature of the impact reflects the long average residual maturity of outstanding government securities (over 7 years) and the limited proportion of securities at variable rates.

Debt/GDP ratio
(percentage points)



Source: Based on *Nota di aggiornamento del Documento di economia e finanza*, 2011.

The results indicate that in the first of these unfavourable scenarios the debt/GDP ratio would fall to 115.5 per cent in 2014. In the second, despite the prolonged stagnation of the real economy, Italian public debt would stabilize at just over 120 per cent of GDP.

[2] C. Bouthevillain et al, "Cyclically Adjusted Budget Balances: an Alternative Approach", ECB Working Paper, No 77, 2001.

Without structural reforms, the necessary corrective measures risk having contractionary effects

The severe strains in sovereign debt markets are bringing about an intensification of budget consolidation policies in the advanced economies. If not accompanied by structural reforms that boost expectations of future income and support domestic demand, the simultaneous implementation of restrictive fiscal policies by a number of countries could undermine growth further, triggering a downward spiral of declining economic activity and deteriorating public finances.

Deleveraging proceeds in the private non-financial sector ...

The financial tensions are, moreover, inducing private sector agents to restrain their borrowing. The ratio of household debt to disposable income is coming down, especially in the countries where it had risen most rapidly in the years preceding the crisis (the United States and, in Europe, the United Kingdom, Spain and Germany; Figure 1.4.a); in several countries this trend is reinforced by the weakness of the labour market. Deleveraging has proceeded for non-financial companies in the United States and the United Kingdom, while for euro-area firms the build-up of leverage has slowed or come to halt (Figure 1.4.b). A retreat from the high levels of private debt reached in some countries is good for financial stability, but if the process is too rapid and widespread it could weigh significantly on consumption and investment expenditure and set off a second negative spiral, between contracting output and the sustainability of private debts.

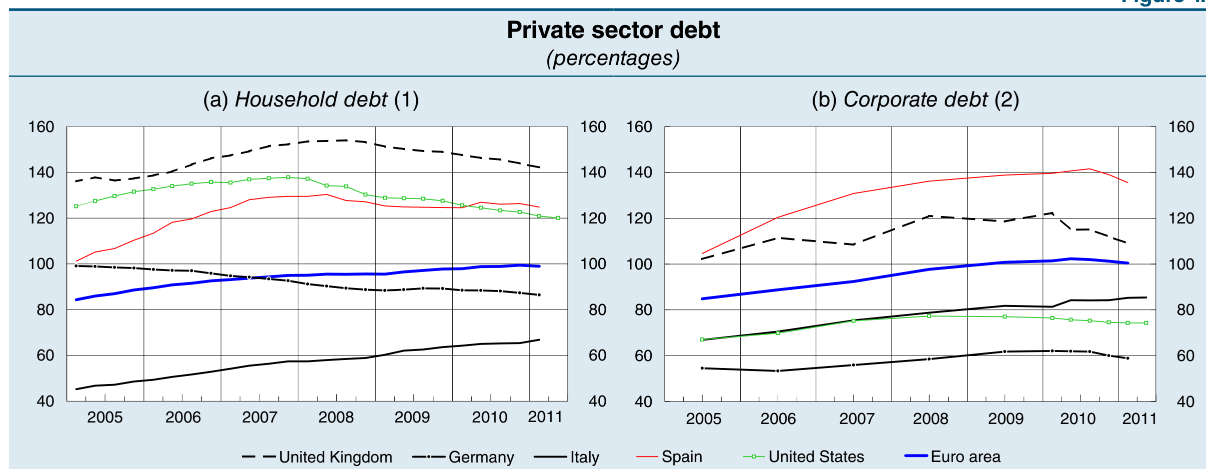
... and among the banks, with risks for economic activity

The main international banks have also continued to reduce their leverage (Figure 1.5.a). The deterioration of conditions in the markets for wholesale funds and, in a weak cyclical phase, the worsening of credit quality could accentuate the shrinking of balance sheets and tighten loan supply conditions for the economy. Signs of a tightening of credit to both firms and households are already discernible in a number of euro-area countries

(Figures 1.5.b and 1.5.c). There is, then, the risk of creating a vicious circle between the decline in economic activity and the sustainability of banks' balance sheets. In this context, it is essential to ensure suitable levels of capitalization of the leading international banks and an adequate supply of liquidity.

Figure 1.4

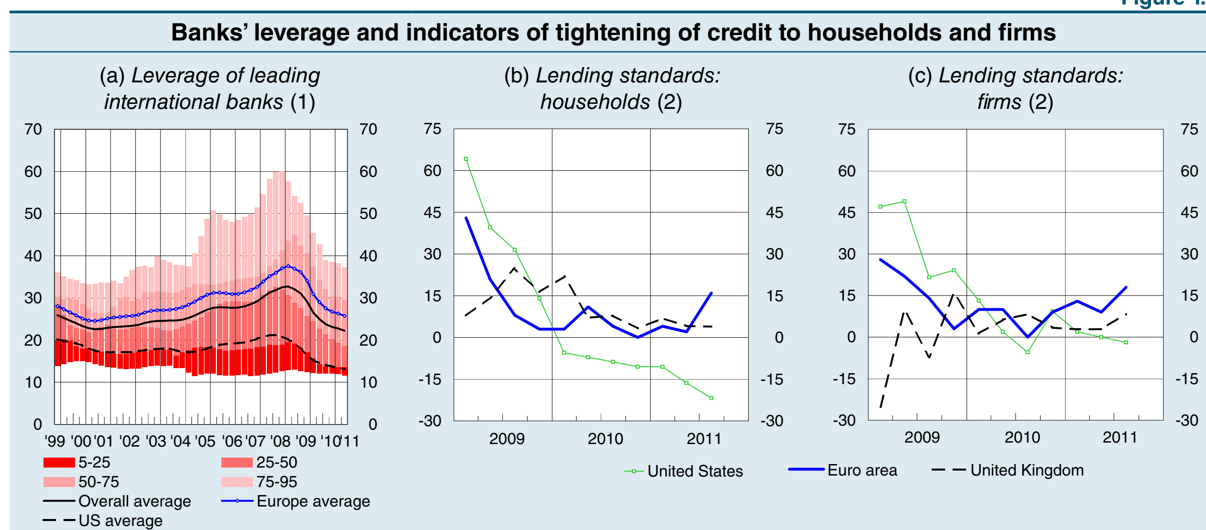
Private sector debt
(percentages)



Source: National financial accounts.
(1) Quarterly data. Ratio of total household debt to the 4-term moving average of disposable income. – (2) Annual data until 2009; quarterly data from 2010 onwards. Ratio of firms' financial debt to GDP.

Figure 1.5

Banks' leverage and indicators of tightening of credit to households and firms



Sources: Bank of England, Bloomberg , ECB and the Federal Reserve.
(1) Quarterly data. Ratio of balance-sheet assets to shareholders' equity. The different shades of red correspond to differences between the percentiles shown in the legend. The leading international banks considered comprise large European and US financial institutions that engage in various types of banking activity, including at international level: Banco Santander, Bank of America, Barclays, BNP Paribas, Citigroup, Crédit Agricole, Credit Suisse, Deutsche Bank, Goldman Sachs, HSBC, ING, Intesa Sanpaolo, JPMorgan Chase, Morgan Stanley, Royal Bank of Scotland, Société Générale, UBS and UniCredit. – (2) Quarterly data; percentage points. For the United States and the euro area: difference between the percentages of banks that report they have tightened and that of banks that report they have eased credit conditions compared with the previous quarter. For the United Kingdom: diffusion index.

For the emerging countries, the risks stem from high inflation and the volatility of capital movements

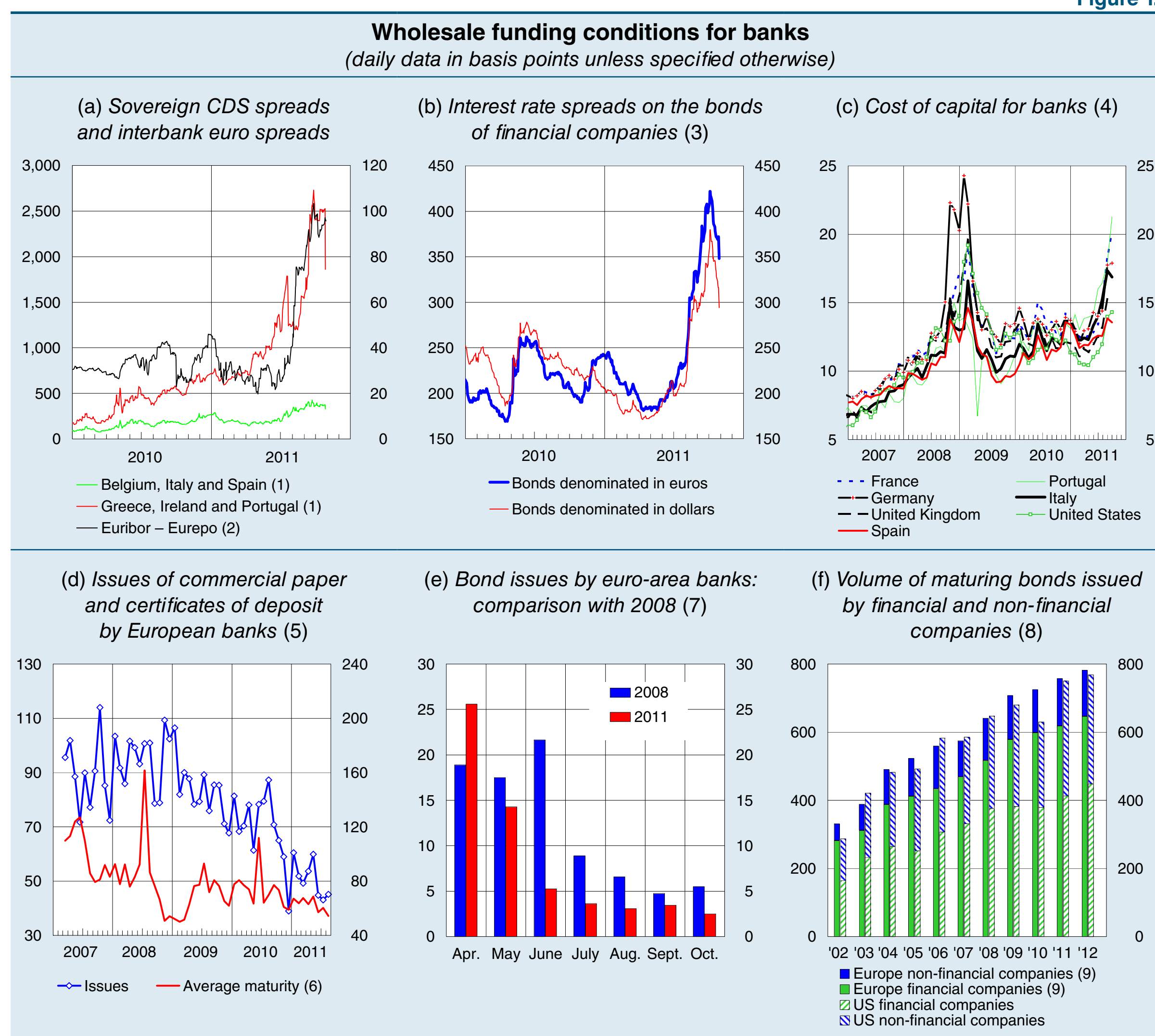
For the emerging countries, the main risks are posed by high inflation (over 7 per cent), which could affect domestic demand and lead to restrictive policies; by a possible slowing of exports, in connection with the worsening of the global economic picture; and, lastly, by the high volatility of capital movements, which could prompt a significant outflow of funds. Overall, however, these economies should still continue to support the growth of world demand.

1.2 THE RISKS IN THE FINANCIAL SYSTEM

The crisis has increased the funding risks for banks on wholesale markets ...

The sovereign debt crisis in Europe is affecting the leading banks' ability to raise medium- and long-term funds through numerous channels (see the box "The impact of sovereign risk on banks' funding"). The increase in risk premiums has raised the cost of funds on the interbank, bond and stock markets (Figures 1.6.a, 1.6.b and 1.6.c). Placements of commercial paper and certificates of deposit have fallen considerably and the average maturity has shortened (Figure 1.6.d). Issues of bank bonds have declined more sharply than in the months preceding the collapse of Lehman Brothers (Figure 1.6.e). Similar developments have affected the leading non-European banks, although to a lesser extent.

Figure 1.6



Sources: Based on Bloomberg, Dealogic, Merrill Lynch and Thomson Reuters Datastream data.
(1) For these countries, average of the CDS spreads of their respective sovereign issuers. – (2) Right-hand scale. Difference between the three-month Euribor and the three-month euro repo rate. – (3) Fixed-rate investment grade bonds with a residual maturity of not less than one year issued by financial companies. – (4) Monthly data. For each country, average of the estimates of the cost of capital obtained using three different models (cyclically adjusted earnings yield; beta model; dividend discount model). – (5) Monthly data. Issues, in billions of euros, made on international markets by euro-area and United Kingdom banks. – 6) Right-hand scale. Measured at issue, expressed in days and weighted by the amount issued. – (7) Monthly data. Issues made on the international market in billions of euros. Excludes all forms of bonds backed by collateral or public guarantees. – (8) Annual data in billions of euros. Bonds with a maturity at issue of 2 or more years issued on domestic markets or on the international market and classified according to the parent company's residence and sector. – (9) Euro-area and UK issuers.

European intermediaries are also experiencing difficulty borrowing in dollars, mainly because of the smaller supply from US money market funds. Banks' funding problems are causing concern particularly in view of the large volume of bank bonds maturing in 2012 (Figure 1.6.f) and the likelihood of heavy recourse to the market by both public and private sector borrowers.

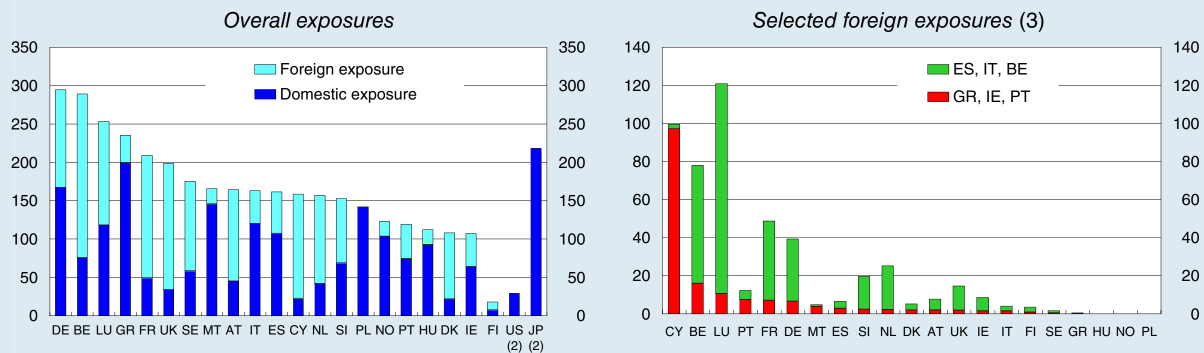
THE IMPACT OF SOVEREIGN RISK ON BANKS' FUNDING

An increase in sovereign risk adversely affects the cost and availability of financing for banks through several channels. First, a fall in the prices of government securities causes losses on banks' securities portfolios, weakening their balance sheets and increasing their riskiness. Generally, the impact is substantial in the case of a depreciation of domestic government securities, holdings of which are significant in relation to banks' capital (Figure A). By contrast, the exposure to foreign sovereign debt is ordinarily limited, although some euro-area banks located in countries with financially sound economies have considerable exposures to some of the countries hit hardest by the debt crisis.

Figure A

Banks' exposures to domestic and foreign public sectors (1)

(as a percentage of capital)



Sources: European Banking Authority, Federal Reserve and Bank of Japan.
Legend: AT = Austria, BE = Belgium, CY = Cyprus, DE = Germany, DK = Denmark, ES = Spain, FI = Finland, FR = France, UK = United Kingdom, GR = Greece, HU = Hungary, IE = Ireland, IT = Italy, JP = Japan, LU = Luxembourg, MT = Malta, NL = Netherlands, NO = Norway, PL = Poland, PT = Portugal, SE = Sweden, Si = Slovenia, US = United States.
(1) For the European countries: gross exposures on a consolidated basis at 31 December 2010 of the sample of banks that participated in the stress tests conducted by the European Banking Authority in July 2011, as a percentage of total regulatory capital. For the United States and Japan: exposures in central and local government securities, as a percentage of accounting capital.– (2) Foreign exposures are not considered. – (3) Exposures to the countries indicated; for the banks of these countries, domestic exposures are excluded.

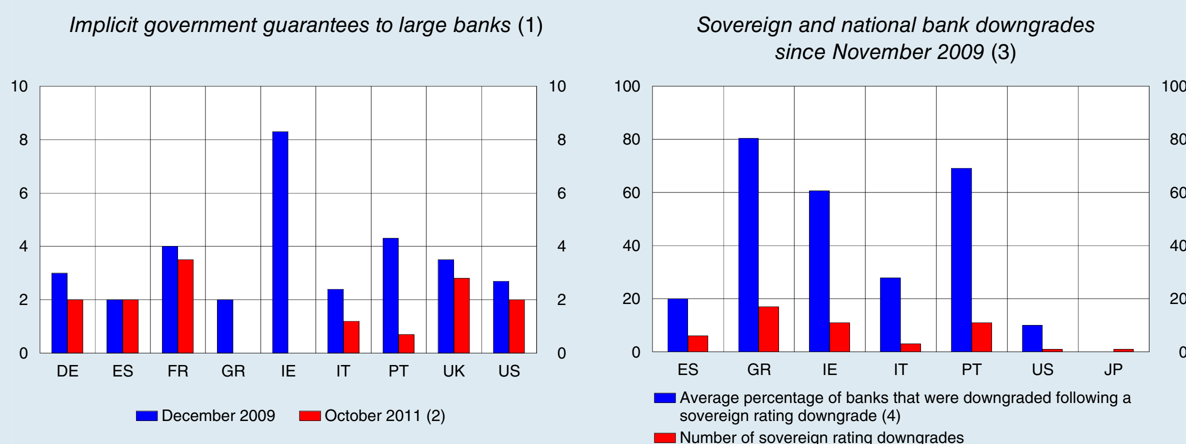
A second transmission channel is the loss of value of government securities that banks use as collateral for raising wholesale funds (for example, through repos) or with the central bank. Besides reducing the value of available collateral, an increase in sovereign risk can trigger margin calls or larger haircuts; in extreme cases, it can lead to the exclusion of the securities as eligible collateral in funding operations. In the past months the impact of this channel on the availability of funds for banks in Greece, Ireland and Portugal was attenuated by the interventions of the ECB, which adapted the criteria for defining eligible collateral in its refinancing operations to the evolving market conditions.

Fears concerning the solvency of a sovereign borrower also affect intermediaries by reducing the value of both explicit and implicit public guarantees on bank liabilities. The programmes of explicit guarantees instituted following the collapse of Lehman Brothers in 2008 have expired in nearly every country (see the box "The interventions in support of the financial system", *Financial Stability Report*, December 2010). At its meeting on 26 October the European Council announced the reintroduction of guarantees for medium- and long-term bank funding, observing that in current market conditions they will have to be closely coordinated at European level. Since the end of 2009 the value of implicit

guarantees – reflecting expectations of government intervention if domestic banks, especially those of systemic importance, get into difficulty – has fallen markedly in the economies with acute budgetary problems (e.g. Greece, Ireland and Portugal; Figure B): the reduction has also been significant for larger advanced countries, such as Germany and Italy.

Figure B

Relation between sovereign issuers' and banks' credit ratings



Sources: Based on Bloomberg and Moody's data.
Legend: DE = Germany, ES = Spain, FR = France, GR = Greece, IE = Ireland, IT = Italy, JP = Japan, PT = Portugal, UK = United Kingdom, US = United States.
(1) The bars measure the value of implicit guarantees (external government support for the banks' rating, measured as the difference between each bank's overall rating and its standalone rating) in terms of credit rating notches; data at 17 October 2011. Number of "large banks" included for each country: United States, six; Italy, five; United Kingdom and France, four; Ireland, Portugal and Greece, three; Germany and Spain, two. – (2) For Greece and Ireland, nil. – (3) Data refer to foreign currency long-term rating downgrades by Fitch, Moody's and Standard & Poor's. Data at 17 October 2011. National banks are defined as banks whose ultimate parent company is domiciled in the same country as the sovereign. – (4) Average share of national banks that had a rating downgrade within three months of the sovereign rating downgrade. The figure for Japan is nil.

A fourth mechanism through which sovereign risks are transmitted to banks derives from the connection between the ratings of public and private issuers. A downgrade of government securities is generally followed by a lowering of the ratings of other domestic borrowers (banks in particular), because, among other reasons, the sovereign rating normally represents a ceiling for the ratings assigned to private borrowers. Since November 2009 the seven advanced countries that have had a downgrade of their sovereign debt have also recorded a reduction in the credit ratings of about 40 per cent of intermediaries within the three following months (the figure exceeds 60 per cent in the countries that have had multiple downgrades). A downgrade increases the cost of funding; in extreme cases it can lead to the exclusion of a bank's liabilities from the basket of securities that certain categories of investor, such as pension funds and insurance companies, are allowed to purchase.

Tensions on a country's sovereign debt can be transmitted to foreign banks both through cross-border interbank relations and through exposures to private debtors in the country affected. Considering the banks of the main advanced economies, foreign interbank exposures towards the three European countries hit hardest by the sovereign crisis amounted to about 0.2 per cent of total assets at the end of the second quarter of 2011; exposures to the private non-financial sector and those stemming from derivative contracts, guarantees and loan commitments amounted to 1.6 per cent. The corresponding figures for the exposures vis-à-vis Belgium, Italy and Spain were 0.7 and 3.5 per cent respectively.

... as well as on retail markets in the countries worst hit

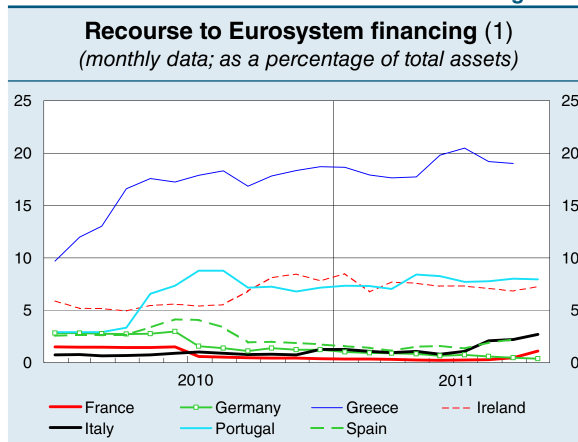
In the countries worst hit by the crisis (Greece, Ireland and Portugal) households' and firms' current account deposits are diminishing sharply, while the average interest rates on deposits have risen by about 1 percentage point since the beginning of 2010.

The Eurosystem has intervened to support liquidity ...

In the short term, the potentially destabilizing effects of the difficulty banks' are experiencing in raising medium- and long-term funds are mitigated by the intervention of the Eurosystem, which has increased the supply of liquidity in euros (Figure 1.7) and in dollars and lengthened its average maturity (see *Economic Bulletin*, October 2011). However, excessive and prolonged recourse to central bank financing would eventually be curtailed by the availability of collateral. Moreover, a persistent shortage of long-term market financing could distort banks' strategies, directing them towards short-term investments or encouraging a further shrinking of balance sheets.

Figure 1.7

Recourse to Eurosystem financing (1)
(monthly data; as a percentage of total assets)



Sources: ECB and national central banks.
(1) End-of-month data; for France, average of the maintenance period beginning in the month indicated.

... but other interventions will be necessary to restore confidence in the banks

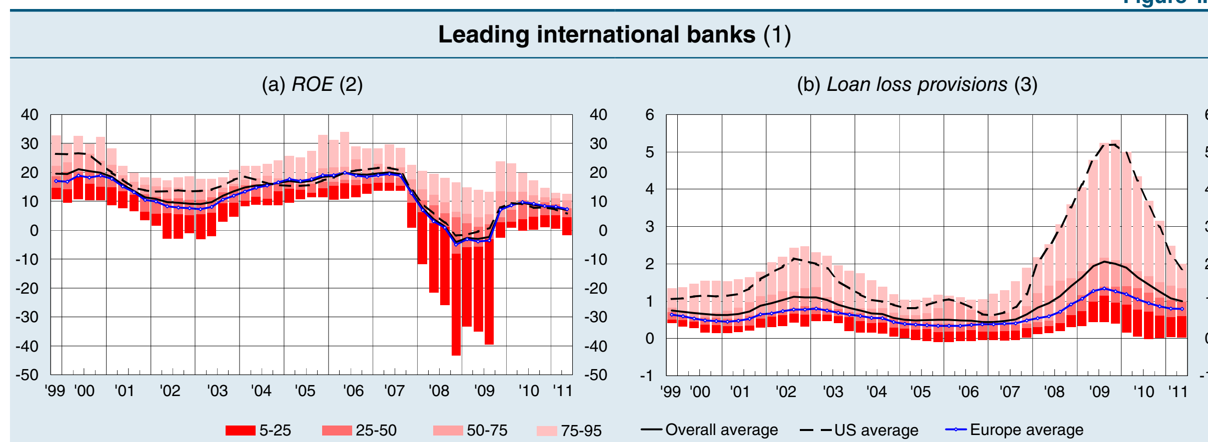
The orderly functioning of the credit market and financial stability require resolute action to rapidly restore investors' confidence in European intermediaries. Between 2008 and 2009, the European authorities intervened successfully to strengthen banks' capitalization and guarantee their long-term funding on the capital markets. In the new situation, the problem of strengthening banks' balance sheets and resolving the sovereign debt crisis are closely intertwined. Accordingly, the plan designed by the European authorities in October comprises both measures to counter the sovereign debt crisis and measures to strengthen banks' balance sheets and funding capacity.

Banks' profitability could decline

The profitability of the leading international banks, which was already falling in the second quarter of the year (Figure 1.8.a), could worsen further in the coming months, mainly as a result of three factors. First, the deterioration in the macroeconomic situation might halt the improvement in loan quality under way since the beginning of 2010 (Figure 1.8.b). Second, the increase in the cost of medium- and long-term fund-raising, if it persists, could compress banks' net interest income. Third, income from services might shrink if activity on the capital market continues to decline as in the previous months (the value of mergers and acquisitions has dropped by 20 per cent, bond

Figure 1.8

Leading international banks (1)



Source: Based on Bloomberg data.
(1) Moving sum of four quarters of quarterly data expressed in per cent. The different shades of red correspond to the differences between the percentiles shown in the legend. For some banks the balance-sheet data used in the figures are not all available. The banks considered are listed in the notes to Figure 1.5. – (2) Annualized quarterly rates of return. – (3) As a percentage of total loans.

and share placements by 40 and 60 per cent respectively). The US banks also face major legal risks owing to disputes concerning the criteria applied in foreclosures and in asset sales associated with mortgage loans.

In Europe financial linkages can accelerate the spread of tensions

Financial tensions can be transmitted from country to country not only through bank exposure but also through the cross-border creditor and debtor positions of other resident sectors. In Europe, and particularly in the euro area where financial interconnectedness has been accelerated by the introduction of the single currency, this mechanism could fuel the contagion from the financially weak countries to others (see the box below).

FINANCIAL INTERCONNECTEDNESS IN EUROPE

A comprehensive picture of the degree of financial integration between countries can be gained using the BIS data on the cross-border exposures of national banking systems together with balance-of-payments and international investment position data, which include the external assets and liabilities of the other resident sectors.[1]

Figure A

Investors' assets vis-à-vis Italy, Spain, Belgium and Greece/Ireland/Portugal by country of residence and type of investment (1)

(annual data; per cent of GDP)

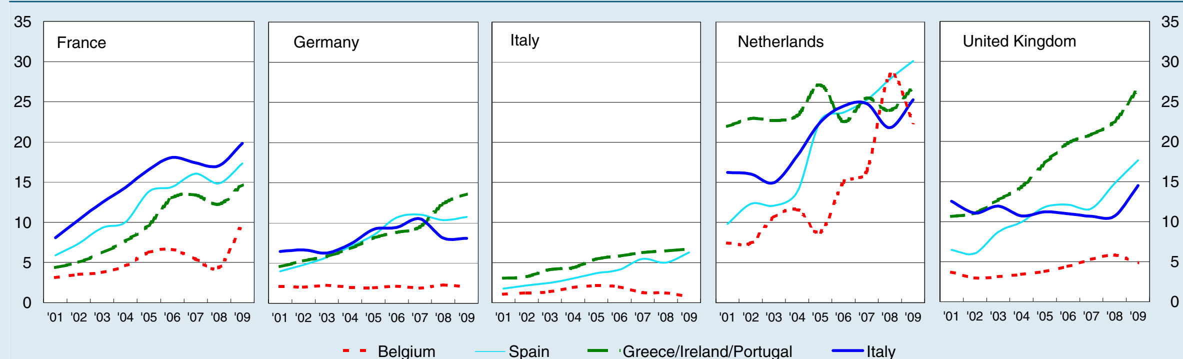
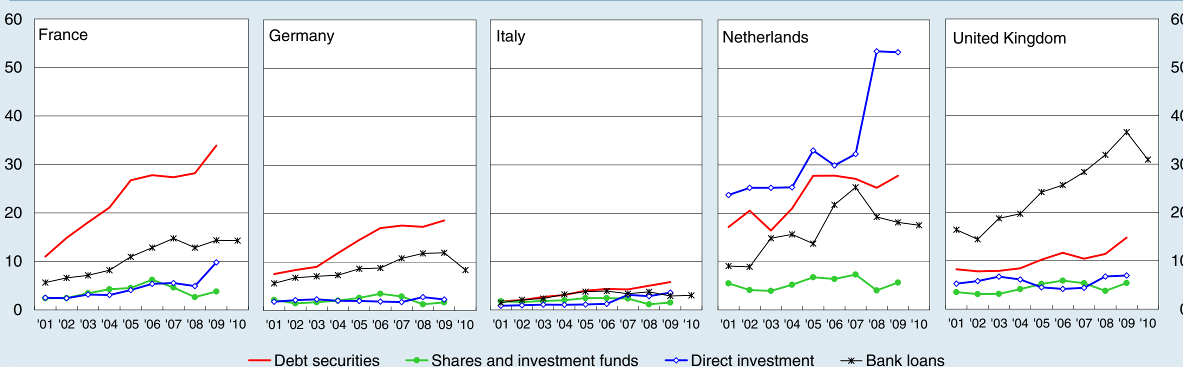


Figure B



Sources: Based on BIS, Eurostat and IMF data.
(1) The charts include the assets of all residents in each investor country. Assets: debt securities, shares and investment fund units, direct investment (through 2009) and bank loans (through 2010), which include interbank deposits. For Italy, only the assets vis-à-vis the other five countries are counted.

[1] The main financial instruments considered are: debt securities and equities and investment funds, using the bilateral data gathered by the IMF in its Coordinated Portfolio Investment Survey, and direct investment, using bilateral data from Eurostat. A joint initiative of the G20 and the Financial Stability Board is under way to strengthen and coordinate the collection of these statistics and the measures of cross-country interconnectedness in general.

Figure A shows the trend in the total gross assets held by some large European Union countries (France, Germany, Italy, the Netherlands and the United Kingdom) vis-à-vis Greece, Ireland and Portugal in the aggregate and also Belgium, Italy and Spain. The growth of gross assets was rapid for France, which had total exposure equal to about 60 per cent of its GDP at the end of 2009. For Germany the rise was more moderate but still resulted in an overall exposure of more than 30 per cent of GDP. The United Kingdom's exposure to Greece, Ireland and Portugal rose particularly sharply (to over 25 per cent of GDP). For the Netherlands, whose degree of openness and financial deepening is especially high, the exposure to the six countries comes to more than 100 per cent of GDP, owing in part to the massive presence of special purpose entities controlled by European financial companies. Italy's overall exposure to the countries with sovereign debt strains – not counting domestic assets – is much lower (less than 15 per cent of GDP), compared with the other main European countries.

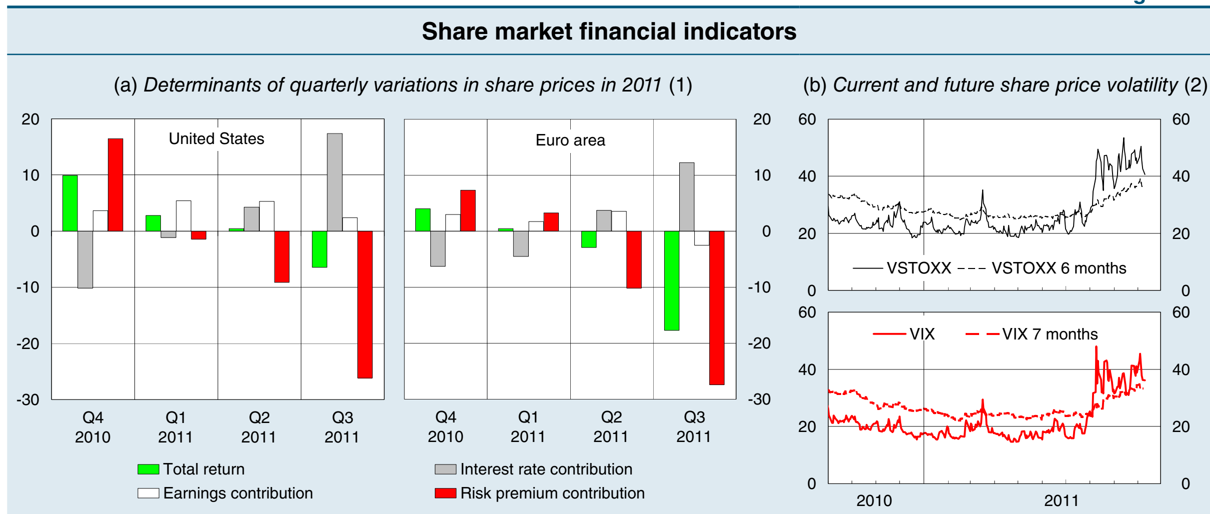
For both France and Germany the largest component of the exposure is debt securities (government and corporate), followed by bank loans (Figure B). For the UK the exposure consists primarily of substantial bank assets vis-à-vis Ireland.

The phase of high volatility of share prices could continue

The upswing in corporate profits, which has helped to limit the share price decline in recent months (Figure 1.9.a), could fade as the growth outlook deteriorates. Moreover, without clear progress towards a solution to the sovereign debt crisis, expectations that the volatility of share prices will diminish (derived from prices on the futures markets; Figure 1.9.b) might prove over-optimistic, with adverse effects on the already high level of risk premiums.

Figure 1.9

Share market financial indicators



Sources: Based on Bloomberg, IBES, Morgan Stanley and Thomson Reuters Datastream data.
(1) Quarterly data; percentages. The quarterly rate of return is broken down into the contributions of the three fundamental determinants (expected earnings, long-term interest rates and the risk premium) assuming that the risk premium is equal to the difference between the nominal return on the shares (equal to the ratio between earnings per share forecast by the financial analysts of the IBES panel for the following twelve months and the share price index) and the yield on ten-year government bonds. – (2) Daily data; percentage points on an annual basis. VIX Index for the United States and VSTOXX Index for the euro area of the implied volatility of spot share prices and similar forward indicators based on futures contracts on the two indices.

1.3 THE REAL-ESTATE MARKETS

In the United States the real-estate market still shows signs of weakness

The real-estate market in the United States continues to show signs of weakness. The futures market suggests that house prices, which began to fall again in the summer of 2010, will decline further in the next few months. Total house sales are struggling to emerge from their current low (Table 1.1), despite the fall of almost

one percentage point in interest rates since the start of the year; while sales of new houses, at their lowest level for fifty years, are declining still further. Difficulties have also emerged in the commercial property sector, where prices are close to the minimum recorded in the last ten years. The rate of delinquency on mortgage loans on residential and commercial property is still quite high.

In the euro area the differences between countries have sharpened

The conditions of the real-estate market in the euro area are still favourable overall, but the differences between countries have increased. House prices are definitely increasing in Germany and France, but still declining in Spain and the Netherlands; sales have picked up sharply in France but continue to fall in Spain. Prospects for the property market are being dampened by the slow recovery in the labour market, restrictive fiscal policies, and credit supply tensions that are emerging in some countries.

Table 1.1

House prices and sales
(percentage changes on the previous period)

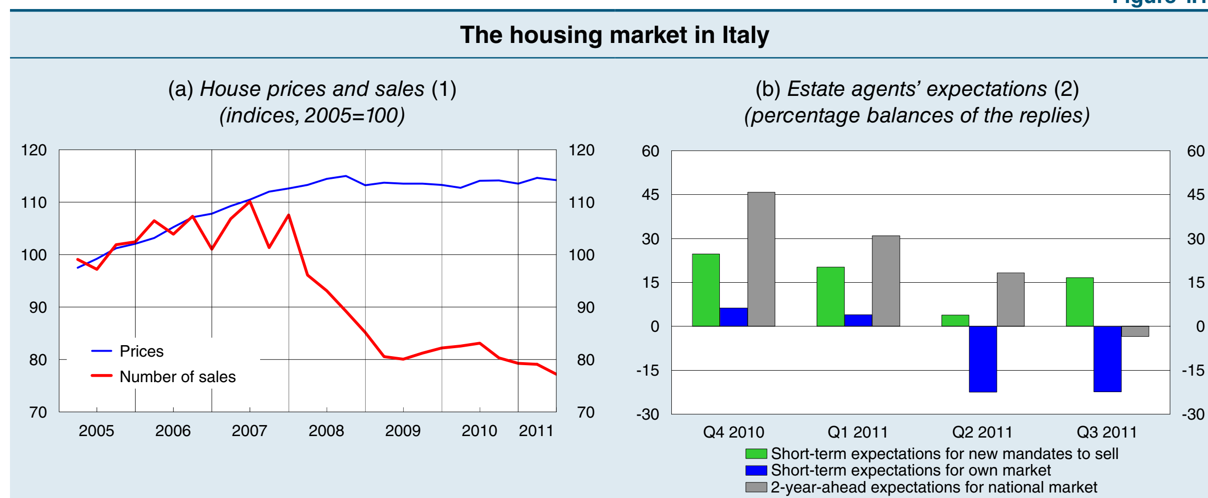
	Italy	France	Spain	United Kingdom	United States
			Prices		
2008	2.6	1.2	0.7	-6.7	-16.7
2009	-0.4	-7.1	-7.4	-7.4	-13.0
2010	0.1	6.4	-3.9	5.8	2.1
H2 2010	0.4	6.3	-1.5	-0.8	-1.1
H1 2011	0.5	1.8	-3.5	0.0	-2.2
			Number of sales		
2008	-15.2	-19.7	-32.5	-44.2	-16.6
2009	-11.3	-7.9	-17.8	-4.6	2.7
2010	0.4	8.2	5.9	3.1	-5.2
H2 2010	-4.7	9.4	-11.2	-0.9	-16.9
H1 2011	-1.2	5.6	-28.5	-3.0	11.8

Sources: Agenzia del Territorio for Italy, Insee for France, Inea for Spain, HM Revenue & Customs for the United Kingdom, Thomson Reuters Datastream for the United States.

In Italy there are signs of weakness in the real-estate cycle ...

In Italy indications of recovery in the property sector have given way in recent months to signs of weakness, especially in the housing sector. In the first half of 2011 investment in construction began to decline again, and the number of house sales fell to a ten-year low (Figure 1.10.a). House prices have remained stable. Conditions in the non-residential property sector remain weak, with stagnant prices and a new decline in sales, especially for office premises.

Figure 1.10



Sources: Based on Bank of Italy, Agenzia del Territorio, *Il Consulente Immobiliare* and Tecnoborsa data.
(1) Seasonally adjusted quarterly data. – (2) Quarterly data from surveys 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 and for agents' own market refer to the quarter following the one indicated.

... but with signs of steadying over the next few months

The most recent cyclical indicators point to stable conditions in the Italian real-estate market in the months ahead, albeit in a general climate of uncertainty. Construction firms' confidence, as measured by Istat in the summer, has remained unchanged; building activity remains quite subdued, but has shown some signs of picking up. October's quarterly housing market survey, conducted by the Bank of Italy, Tecnoborsa and the Agenzia del Territorio on a sample of estate agents, indicated there would be a slight increase in mandates to sell over the next few months (Figure 1.10b). Estate agents' short-term expectations for their own markets remained unchanged, but their medium-term outlook for the national market worsened, presumably because of growing pessimism over the general economic picture.

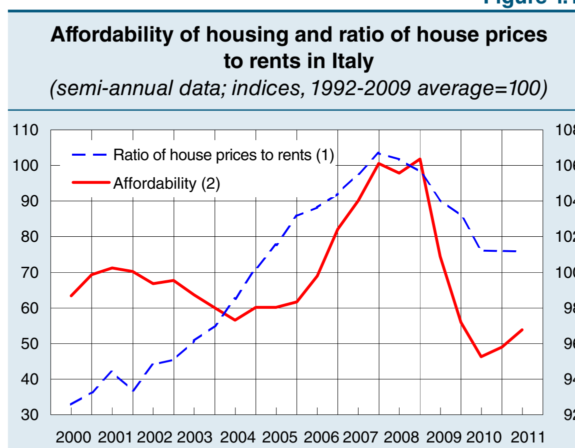
In Italy the risk of overvaluation is modest

In Italy the risk of an overvaluation of properties is still low. The ratio of prices to rents is close to its long-run level (Figure 1.11), and the affordability index is at a much more favourable level than the long-period average. The absence of signs of prices being overvalued is supported by econometric analyses that relate prices to the main determinants of supply and demand for houses, such as households' disposable income, rents, the cost of buildings, dwelling surface area per resident inhabitant, and the cost of credit. Estate agents polled in the latest survey confirm that the risk of sharp adjustments in prices over the next few months is limited; in particular, the October survey indicates that about half of the agents expect prices to remain stable.

Figure 1.11

Affordability of housing and ratio of house prices to rents in Italy

(semi-annual data; indices, 1992-2009 average=100)



Sources: Based on Bank of Italy, Istat, *Il Consulente Immobiliare* and Agenzia del Territorio data.
(1) Right-hand scale. – (2) The indicator is given by the ratio of debt service on new mortgage loans – approximated by the product of house prices and interest rates – to household disposable income; a fall indicates that housing is more affordable.

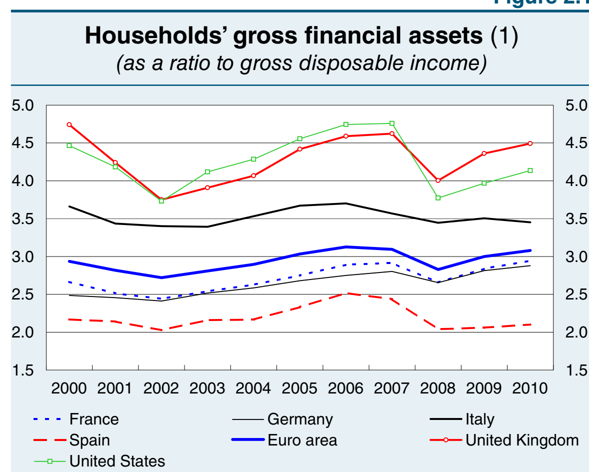
2 THE FINANCIAL CONDITION OF HOUSEHOLDS AND FIRMS

2.1 THE FINANCIAL CONDITION OF HOUSEHOLDS

Italian households' wealth is substantial by international standards

Italian households' total net wealth is particularly high by international standards, estimated at about eight times disposable income in 2010. Real assets make up more than two thirds of this aggregate; given the stability of Italian house prices, this composition has protected households from the turmoil of the markets. In the three years 2008-2010 total net wealth increased by 1.7 per cent; the growth was the result of the flow of saving, which, though declining, more than offset the effects of the small losses caused by the fall in the value of financial assets.

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 – Board of Governors 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.

Risky assets make up a small share of financial portfolios

The value of Italian households' financial assets as a ratio to disposable income (3.5) has remained unchanged and is higher than the ratio in the other main euro-area countries (Figure 2.1). The impact of the crisis was cushioned by the low degree of risk of households' financial portfolios, which contain a high proportion of deposits, public and private bonds, and insurance and pension reserves (see the Bank's Annual Report for 2010, Chapter 14 "The financial condition of households and firms"). Furthermore, ownership of riskier assets is concentrated in quite a small proportion of high-income households: 6 per cent of Italian households own shares (7 per cent hold investment funds) and they belong largely to the highest quartile of the distribution of equivalent income (a measure that takes household size into account). Ownership of less risky financial assets makes it possible to attenuate the impact of a drop in income on consumption. About a tenth of all households have no financial assets; only a fraction of these households are indebted.

Household debt is low but it is rising, especially in low-income households

Italian households' debt has risen in relation to disposable income in recent years, partly as a consequence of the contraction in income due to the crisis. It remains low by international standards, especially in the mortgage loan component (Figure 2.2).

The Bank of Italy's Survey on Household Income and Wealth shows that the low degree of indebtedness at aggregate level largely reflects the modest share of households with debt: 24 per cent in 2008 (the latest figure available), compared with between 40 and 50 per cent in the other major euro-area countries and more than 60 per cent in the United States and the United Kingdom. The share is rising, however, primarily because of more borrowing by low-income and

southern households. For indebted households, the median ratio of debt to income has also risen and now approaches 50 per cent; the ratio of debt to total assets, an indicator of debt repayment capacity, stood at 12 per cent, lower than in other countries for which data are available.

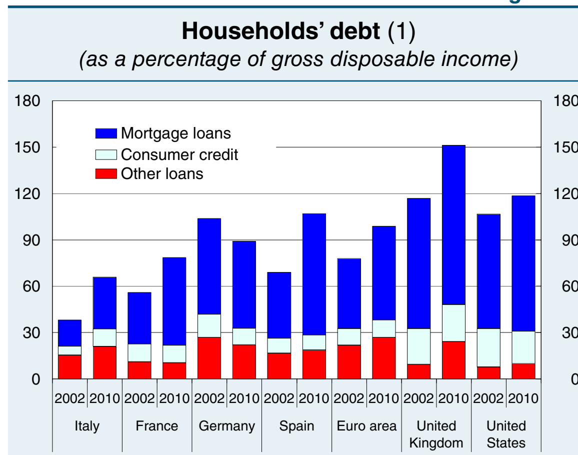
The risk of a significant increase in interest expenses is limited

If Italian banks' current difficulties in raising funds on wholesale markets were to persist, the interest rates on loans to households could rise considerably. Overall, however, the risk of a significant increase in the debt burden of Italian households seems limited. To begin with, the variable-rate mortgages granted in the past (some 70 per cent of the total stock of mortgage loans) are linked to Euribor, which the markets expect to come down in the coming months. Further, the low proportion of loans to households that are set to reach maturity in the next two years (Figure 2.3) suggests that new loans, whose cost will be influenced by the strains in banks' funding markets, will be for a limited amount. Finally, after the worsening of costs in recent months, the spread over three-month Euribor applied to new variable-rate mortgages is already high compared with the past (1.6 percentage points, against an average of about 1 point in the three years preceding the crisis) and not much lower than in euro-area countries that for some time have been feeling the effects of the sovereign debt crisis and of a prolonged slump in house prices.

Figure 2.2

Households' debt (1)

(as a percentage of gross disposable income)

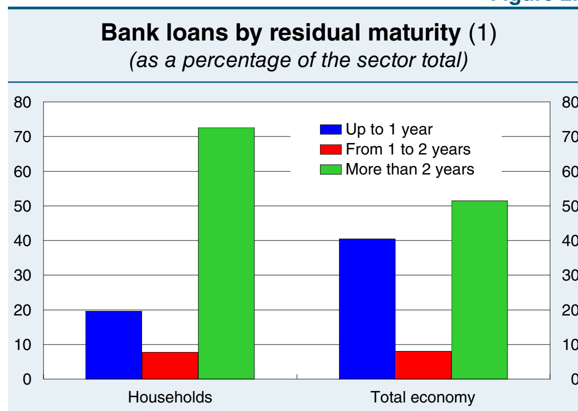


Sources: Bank of Italy and Istat for Italy; Eurostat and ECB for the other euro-area countries; Central Statistical Office and Bank of England for the United Kingdom; Federal Reserve System – Board of Governors and Bureau of Economic Analysis for the United States.
(1) The data include bad debts and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

Figure 2.3

Bank loans by residual maturity (1)

(as a percentage of the sector total)



Source: Supervisory statistical reports.
(1) The data refer to June 2011.

The phasing out of support programmes could weigh on the financial situation of indebted households

The effects of the measures taken during the financial crisis to support indebted households are fading. The moratorium promoted by the Italian Banking Association together with the main consumer organizations, which allows households in difficulty to suspend mortgage loan repayments, will expire at the end of January; up to last August more than 50,000 mortgage borrowers with residual debts of €6.3 billion had availed themselves of the moratorium. The government programmes introduced in 2010 (the solidarity fund for mortgages for the purchase of first homes and the credit fund for the newborn) are coming to an end. Despite the recent start of two additional public initiatives to support young couples and students, the expiry of the previous measures, which had a greater number of potential beneficiaries, could make low-income households with a high debt-servicing burden more vulnerable.

The risks depend mainly on the resilience of disposable income and the increase in interest rates

In the coming months the greatest risks for the financial situation of indebted households stem from the slowdown in disposable income and from possible further large increases in loan rates. An analysis of the impact that these risks could have on the most vulnerable households is given in the box below.

THE FINANCIAL VULNERABILITY OF INDEBTED HOUSEHOLDS

The vulnerability of indebted Italian households to a rise in interest rates or a sudden reduction in income is evaluated, taking as indicator the ratio of debt service to disposable income. The vulnerability threshold is set at 30 per cent, in keeping with the methodology employed by authorities abroad for financial stability analysis and with financial intermediaries' common conditions for lending.

According to the Bank of Italy's Survey of Household Income and Wealth (SHIW), 2.4 per cent of Italian households (i.e. 10.3 per cent of indebted households) had debt service ratios higher than 30 per cent in 2008; they accounted for 23.4 per cent of total household debt (see table). [1] In the lowest income quartile, the share of vulnerable households was 5.6 per cent, accounting for 11.7 per cent of the total household debt. The ratio of these households' net liabilities (debt minus financial and real assets) to the household sector's total debt – an indicator of the banks' potential loss in case of default – was equal to 0.65 per cent, very largely accounted for by the low-income households. If net liabilities are calculated including only real assets (which are more likely to be acquired by intermediaries in the course of default proceedings), the potential losses on loans to financially vulnerable households rise to 0.8 per cent of total lending to households. [2]

Indicators of financial vulnerability of indebted households (1)
(data for 2008; percentages)

Income quartiles	Vulnerable households as per cent of all households (2)	Vulnerable households as per cent of indebted households (3)	Per cent of debt held by vulnerable households (4)	Net liabilities of vulnerable households as per cent of total household debt (5)
1st quartile	5.6	28.4	11.7	0.54
2nd quartile	1.9	7.9	5.2	0.11
3rd quartile	1.2	5.2	3.2	0.0
4th quartile	1.0	3.8	3.3	0.0
Total	2.4	10.3	23.4	0.65

Source: Bank of Italy, Survey of Household Income and Wealth.
(1) Financially vulnerable households are defined as those with debt service equal to more than 30 per cent of disposable income. Income is gross of interest expenses. Quartiles are according to equivalent household income. – (2) Percentage of the number of households in each quartile and in the total sample. – (3) Percentage of the number of indebted households in each quartile and in the total sample. – (4) Percentage of overall household debt. The total is the sum of the figures shown in the rows. – (5) Net liabilities are equal to the difference between the liabilities and the assets of the vulnerable households. The total is the sum of the figures shown in the rows.

In order to evaluate the impact on the vulnerability indicators of shocks to the cost of debt or to disposable income in 2012, we have estimated the portion of debt that would be held by the vulnerable households under several adverse scenarios.

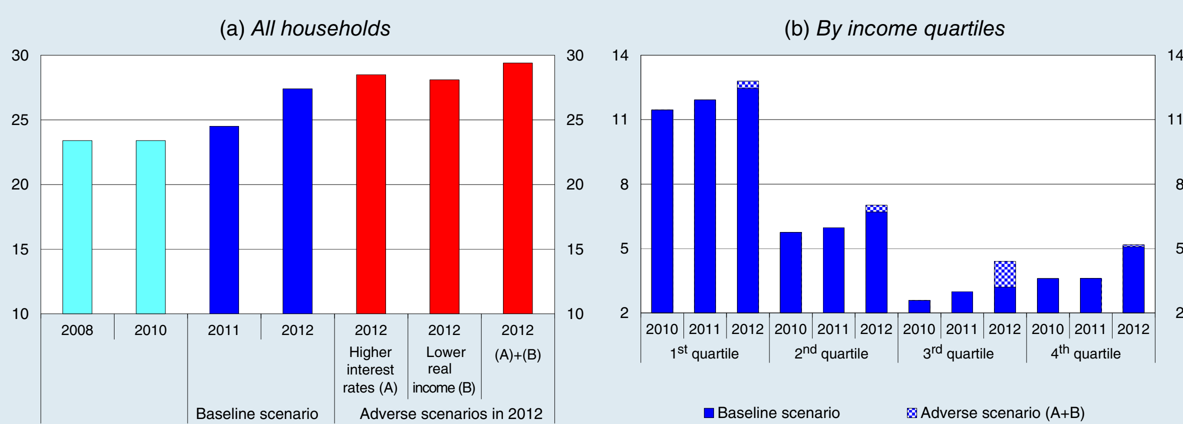
Since the SHIW microdata are for 2008, the initial income figure and the debt service burden for 2010 had to be estimated. [3] For 2011 and 2012 a baseline scenario was created. It assumes – using the Bank of Italy's quarterly model and factoring in the public finance measures of 2011 – that households' nominal disposable income rises by 2.5 per cent in 2011 and 1.1 per cent in 2012. It is further assumed that the sovereign debt tensions already registered cause a significant lagged rise in the interest rates on loans to households of about 90 basis points in the second half of 2011 and of

[1] If the vulnerability threshold is raised to 40 per cent, the portion of vulnerable Italian households decreases to 5 per cent of all indebted households, or about one third as many as found by surveys in Spain (2008) and the United States (2007).
[2] The actual losses sustained by banks in the case of insolvency of the vulnerable households could actually be greater than these households' net liabilities, insofar as part of a household's assets may not be subject to repossession as part of the credit recovery procedure and the proceeds from court-ordered sales of assets often fail to match their book value.
[3] This was done by projecting 2008 incomes on the basis of the trends found by Istat's labour force surveys, broken down into income quartiles. A second simulation factored in changes in unemployment rates and recourse to the Wage Supplementation Fund. The total debt service burden of households is estimated on the basis of observed changes in interest rates and in the volume of debt.

more than a full percentage point in 2012 (see footnote 1 in Chapter 3). This exercise produces an estimate of the share of debt held by vulnerable households in 2011 and 2012.[4, 5]

For 2012 three alternative scenarios were developed in connection with possible adverse shocks. The first alternative assumes that the yield on long-term government securities rises by an additional 60 basis points in the fourth quarter of 2011 (half as much as it rose in the third quarter), causing the rate on loans to households to rise by 40 basis points over the baseline in 2012. The second alternative involves a reduction of 5 per cent in households' real disposable income in 2012, more than during the recession of 2009. The last scenario combines these two alternatives, evaluating the joint effect of higher interest rates and a sharp recession.

Share of debt held by vulnerable households (1)
(percentages)



Source: Based on data from Bank of Italy Survey of Household Income and Wealth for 2008.
(1) For the forecasts for 2010, the data from the Household Income and Wealth Survey for 2008 are adjusted according to the aggregate changes in income, interest rates and credit recorded in 2009-10. For 2011 and 2012 four scenarios are considered. The baseline has nominal household income rising by 2.5 per cent in 2011 and 1.1 per cent in 2012, interest rates rising by 90 basis points in the second half of 2011 and over 1 percentage point in 2012. The higher-interest-rate scenario (A) assumes the aggravation of sovereign debt tensions in the fourth quarter of 2011, provoking an extra rise of 40 basis points in interest rates on loans to households in 2012. The lower-income scenario (B) posits a reduction of consumer households' real income of 5 per cent in 2012. The last scenario (A+B) combines the two alternative scenarios. The households in panel b are distinguished on the basis of equivalent household income.

The estimates for 2010 put the share of the total household debt held by vulnerable households at about the same as in 2008, around 23 per cent (figure, panel a), owing to a decline in real household income that was offset by the reduction in debt service produced by the fall in interest rates in 2009-10.

For the following years, in the baseline scenario the percentage of debt held by vulnerable households rises to exceed 27 per cent in 2012 (4 percentage points more than in 2010). In the adverse scenario positing a sharper rise in interest rates, the vulnerable households' share of the total debt could go above 28 per cent in 2012 (more than 1 point above the baseline projection). A shock to income would have a comparable impact. The cumulative effect of shocks both to interest rates and to disposable income would raise the vulnerable households' share of debt to over 29 per cent.

[4] As a robustness check, the exercise was replicated under a series of equally plausible alternative technical assumptions and the median estimate was selected.
[5] The simulations for 2011 and 2012 only raise the interest rates on new mortgage loans made during those two years. The cost of variable-rate mortgages granted in past years (usually indexed to Euribor) has been kept unchanged. Since the market expects a fall in Euribor over the coming months, this assumption presumably overestimates the cost of mortgage debt to households. The simulations also assume higher interest rates on consumer credit, given the short maturity of these loans and the possibility for banks to review their terms. Sensitivity exercises show that keeping interest rates on a portion of these contracts unchanged would have only a limited effect on the overall results.

The figure also disaggregates the baseline scenario results and the combined effect of the two shocks by income quartiles (panel b). The analysis shows that the baseline increase in the debt share between 2010 and 2012 is fairly evenly distributed among the different income classes of households. The additional shocks appear to affect the third quartile most sharply. The small impact on the bottom quartile needs to be read with caution, considering that incomes have been projected according to the aggregate trend, which could overestimate that of the low-income households.

Overall, the results of these simulations suggest a worsening of the vulnerability indicators in the baseline scenario but only a modest exposure of vulnerable households to the additional shocks considered.

2.2 THE ECONOMIC AND FINANCIAL CONDITION OF FIRMS

The weakness of economic activity hits firms' profitability and increases their external funding requirement

The first signs of the feebleness of the economic recovery are discernible in the data on firms. In June 2011 the rate of growth in gross operating profit fell to 1.4 per cent, from 3.3 per cent last December. The ratio of interest expense to gross operating profit inverted its downward trend and ended the period above the pre-crisis level (Figure 2.4). The external borrowing requirement rose as the growth in self-financing failed to keep pace with that in capital spending.

The slackening of the recovery also affected corporate bankruptcies, which turned upwards in the second quarter of 2011; the highest sectoral bankruptcy rates are in manufacturing and construction, but the recent worsening is mainly ascribable to service firms.

The improvement in the time to settlement of commercial transactions, the lengthening of which was one of the signs of the economic and financial strains during the crisis, is proceeding slowly. The data on trade receivables transferred to the financial system show that in the second quarter of 2011 the percentage of overdue trade credits fell to 13.2 per cent, from 13.6 per cent at the end of 2010. The indicator declined in services and industry but rose in construction (Figure 2.5).

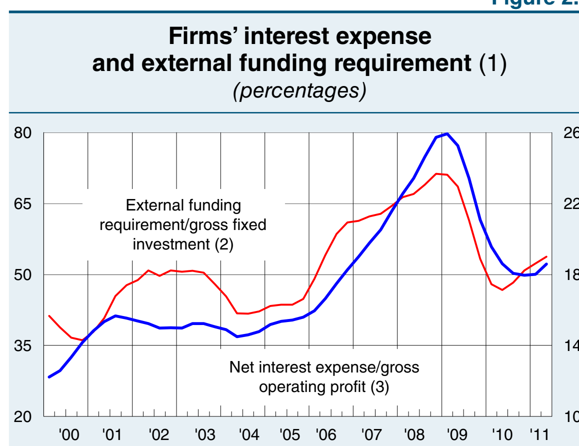
The survey of firms confirms the existence of strains ...

The Business Outlook Survey that the Bank of Italy carried out in September on a sample of some 4,000 industrial and service firms supports

Figure 2.4

Firms' interest expense and external funding requirement (1)

(percentages)

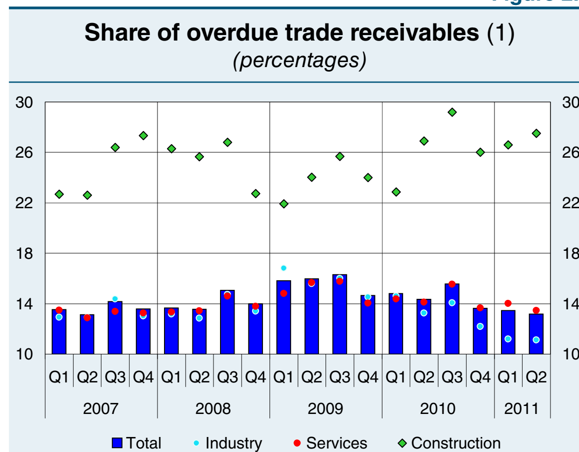


Sources: Bank of Italy and Istat.
(1) Estimates based on national accounts data for the non-financial corporations institutional sector. The indicators are based on the sum of the data for the four quarters ending in the reference quarter. – (2) Left-hand scale. The external funding requirement is the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

Figure 2.5

Share of overdue trade receivables (1)

(percentages)



(1) Data based on trade receivables transferred to the financial system – through factoring, bill discounting and in other ways – for which the debtor is known.

the view that Italian firms' profitability is stagnating. The share of companies reporting an increase in turnover (42 per cent) was about the same as in 2010, as was the share of those expecting to end the year showing a profit (58 per cent, ten points less than before the crisis). In the last two years firms based in the South, those with fewer than 50 workers and those operating in the service sector have experienced relatively greater difficulty in recouping profitability. Downward revisions of investment plans were more frequent than last year; as the main causes, firms cited financial and organizational factors and heightened uncertainty over the macroeconomic outlook. The external funding requirement reportedly increased for 28 per cent of the sample firms.

... and indicates that businesses expect the cycle to worsen

For the coming months firms expect the cyclical situation to worsen. Orders and turnover are expected to slow, especially among exporters, large companies and manufacturing firms. Investment is expected to diminish, particularly among the smallest firms. According to the predominant opinion, the conditions of access to credit will worsen as regards both the cost and the availability of new loans. These fears are widespread chiefly among medium-sized firms and those in manufacturing or wholesale and retail trade.

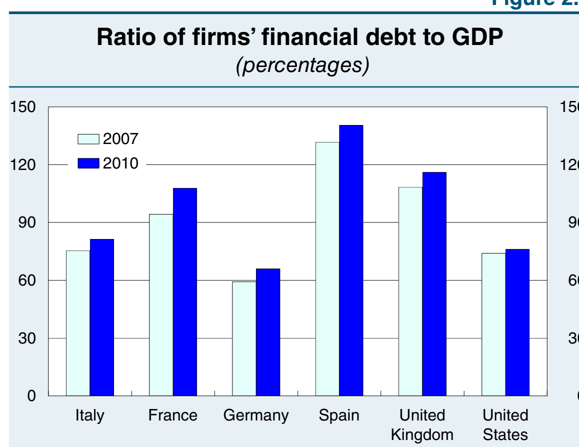
The slowing of the economy and the worsening of financing conditions are the greatest risks for firms

Looking ahead, the principal risks for firms stem from the slowing of the business cycle and from a possible worsening of financing conditions due to the strains in bank funding. Despite the relatively low ratio of financial debt to GDP (Figure 2.6), Italian firms are highly vulnerable to interest rate risk, owing mainly to the high proportion of short-term debt (some 60 per cent of their debts to banks have a maturity of less than two years), for whose renewal banks could decide to increase their margins (see the box "The exposure of firms to a cyclical deterioration"). Another factor of vulnerability for firms is the scant diversification of their debt, more than two thirds of which is to banks.

Figure 2.6

Ratio of firms' financial debt to GDP

(percentages)



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 – Board of Governors and Bureau of Economic Analysis for the United States.

THE EXPOSURE OF FIRMS TO A CYCLICAL DETERIORATION

This box examines alternative scenarios for the financial condition of Italian firms this year and in 2012. A counterfactual exercise evaluates the impact of adverse shocks. The results show the risk of a significant worsening in firms' financial condition. The percentage of financially vulnerable companies could be greater than in 2009.

The indicator used to gauge firms' financial condition is the ratio of interest expense to gross operating profit, which financial analysts and banks commonly employ to assess companies' capacity to repay their debts. The vulnerability threshold is usually set at between 50 and 75 per cent; here, in order to guarantee a prudent estimate, it is set at 50 per cent. [1]

[1] This choice is consistent with the results of econometric analyses showing that above that threshold there is a significant reduction in the rate of capital investment, profitability, and the ability to finance investment out of internally generated funds.

The average ratio of interest expense to gross operating profit for the 500,000 firms covered in the Cerved archives rose steadily from 2004 to peak at 31.3 per cent in 2008 before subsiding, as the cost of credit fell, to 21.4 per cent in 2010 (see table). Dispersion around the mean is substantial (as is shown by the large difference between the ratios for the first and last quartiles) and has been increasing in recent years. [2] Considering the share of firms with a ratio of more than 50 per cent, the conclusions are similar: it peaked at 34.3 per cent in 2009 and apparently came down only somewhat in 2010 to 32.3 per cent, still high by comparison with pre-crisis years.

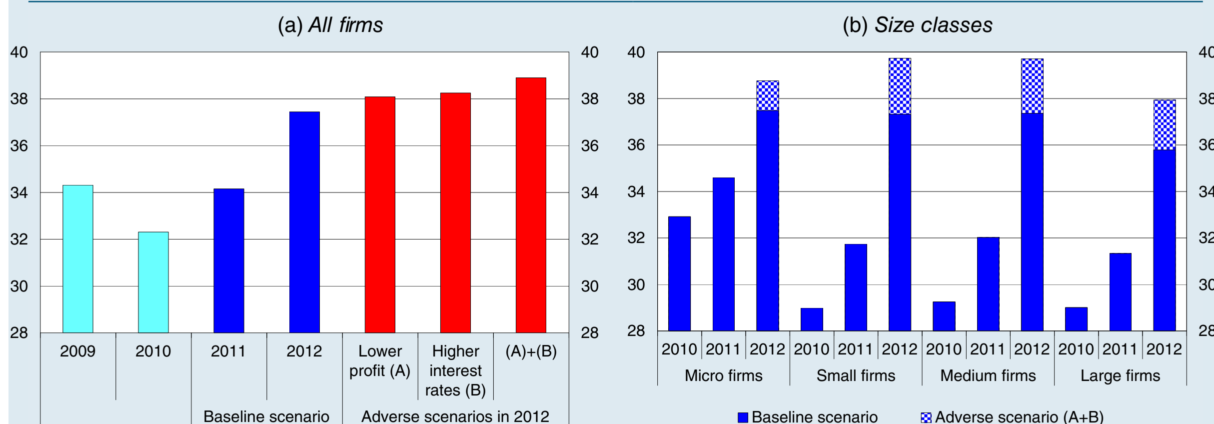
Starting from balance-sheet data for 2010, we have estimated the portion of firms whose interest expense will come to more than 50 per cent of gross operating profit in 2011 and 2012 under several alternative economic scenarios. In the baseline scenario we apply to the individual firms' 2010 accounts the estimated aggregate changes for profit, borrowing and interest rates on bank loans; the estimates are based on the Bank of Italy's

Incidence of interest expense on gross operating profit (1)
(per cent)

	Mean	25th percentile	Median	75th percentile	Share of firms with ratio of interest expense to gross operating profit over 50% (2)
2002	25.4	4.2	21.8	110.0	33.0
2003	26.0	4.3	21.2	108.1	32.5
2004	20.2	3.7	19.3	95.4	30.9
2005	21.8	3.4	18.5	91.7	30.6
2006	23.7	3.0	17.3	75.0	29.3
2007	25.0	3.0	18.8	80.7	30.4
2008	31.3	3.3	22.2	125.0	33.8
2009	25.0	2.9	20.3	300.0	34.3
2010 (3)	21.4	1.1	16.8	184.7	32.3

Source: Based on Cerved data.
(1) In calculating percentiles and the share of firms with a ratio over 50%, firms with zero or negative gross operating profit (about a fifth of the sample) are assigned the value of the 99th percentile, corresponding to interest expense four times as great as operating profit. – (2) Percentage of total number of firms. – (3) Financial statements are only available for some 130,000 firms; for the others, changes in interest expense and gross operating profit are estimated on the basis of the national accounts and the financial accounts.

Share of firms with ratio of interest expense to gross operating profit of more than 50 per cent (1)
(percentages)



Source: Based on Cerved data.
(1) In the baseline scenario, gross operating profit rises by 3.8 per cent in 2011 and 3.4 per cent in 2012, while interest rates rise by 90 and 170 basis points. In the unfavourable scenarios for 2012, nominal profit is assumed to decline by 1.8 per cent (scenario A), interest rates to rise by 220 basis points (scenario B), or both (scenario A+B).

[2] The amplitude of the dispersion reflects the great number of micro firms, many of which have no financial debt or report a gross operating loss.

econometric model, factoring in the recent public finance adjustment measures.[3] Three alternative adverse scenarios have been devised for 2012: a) a fall in real gross operating profit equal to half that registered in the recession of 2009; b) a greater increase in the interest rates on bank loans owing to an additional shock of 60 basis points to the yields on government securities (about half the increase registered last summer); and c) both of the above.[4]

In the baseline scenario, gross operating profit and financial debt increase at a slower pace. Bank interest rates increase considerably (by more than 250 basis points over the entire period). The share of financially vulnerable firms (those whose ratio of interest expense to gross operating profit is above the 50 per cent threshold) would increase by about 2 percentage points in 2011 and a further 3 in 2012, to the particularly high level of 37.4 per cent (figure, panel a). The simulations for the adverse scenarios for 2012 indicate that either a decrease in profits or a sharper rise in interest rates would entail only a limited increase in the portion of vulnerable firms, slightly more than half a percentage point above baseline, but the combination of the two adverse events would increase it by 1.5 percentage points, to 38.9 per cent. In all the scenarios, the share of vulnerable firms rises more sharply among small and mid-sized firms (figure, panel b). The deterioration is more marked for firms in the North-East and for firms in construction, manufacturing and agriculture.

[3] In calculating interest expense, interest rate changes are applied only to short-term debt and new medium- and long-term debt. Pre-existing medium- and long-term debts are largely indexed to market rates such as three-month Euribor, which should not vary significantly in the next few months, according to the indications of futures contracts.
[4] In the absence of forecasts of the total amount of firms' financial debt, the simulations have assumed growth in total borrowings (bonds, loans from Italian and foreign banks or others) equal to that forecast for lending by Italian banks. Positing an increase in financial debt either one-half larger or one-half smaller than that in bank debt, the share of firms above the financial vulnerability threshold changes by about half a percentage point.

3 THE BANKING AND FINANCIAL SYSTEM

3.1 THE MARKET'S ASSESSMENT OF ITALIAN BANKS

Market-based indicators signal fears of new tensions

The sovereign debt crisis is having repercussions on European banks. The publication in July of the results of the stress tests did not reassure investors. For Italian banks, strains are indicated by the widening of CDS spreads and the rise in expected default frequencies derived from stock market data (Figures 3.1.a and 3.1.b). The increase in risk premiums (Figure 3.1.c) and the decline in expected earnings (Figure 3.1.d) have lowered the ratio of Italian banks' market-to-book ratios, which are now at very low levels. The other large European banks are also under significant strain, which has produced a general worsening of systemic risk indicators at international level (see the box below).

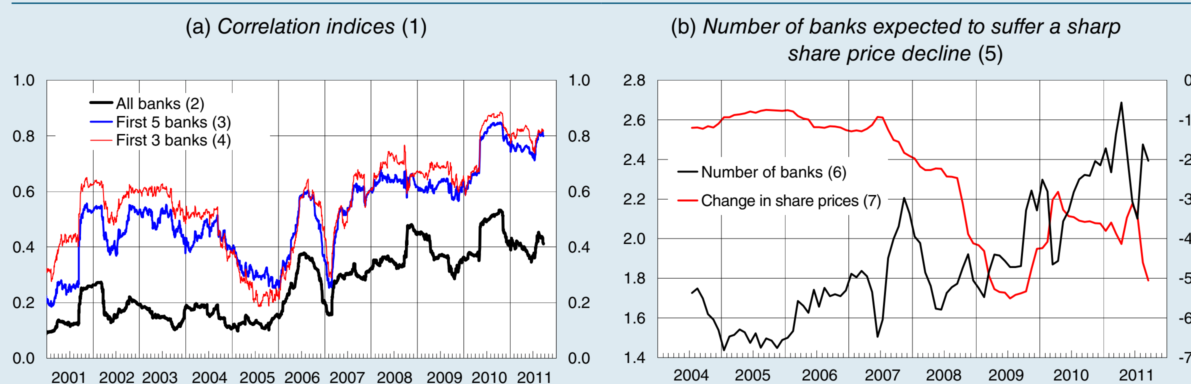
INDICATORS OF INTERDEPENDENCE BETWEEN BANKS

The movements of the share prices of the major Italian banks display a high degree of synchrony, as is shown both by the indices of correlation of returns (Figure A.a) and by measures of dependence in the case of a sharp drop in stock market prices (Figure A.b). High correlations are also found between the share prices of the major European and US banks. The synchrony reflects common risk factors – such as the diminishing prospects of growth, the difficulty of procuring medium- and long-term funds, and exposure to private and public sector debtors in the countries stricken by the crisis – and the close linkages among national financial systems (see the box "Financial interconnectedness in Europe").

Using statistical models it is possible to estimate the joint probability of distress (JPoD) for a set of intermediaries, starting out from the spreads on their five-year credit default swaps. Compared with March

Figure A

Italian banks: indicators of share price co-movement



Source: Based on Thomson Reuters Datastream data.
(1) Daily data. Simple average of the correlations between the equity returns of pairs of banks calculated on daily data and 6-month moving windows. – (2) Banks included in the FTSE Italia All-Share index. – (3) UniCredit, Intesa Sanpaolo, Banca Monte dei Paschi di Siena, Unione di Banche Italiane and Banco Popolare. – (4) UniCredit, Intesa Sanpaolo and Banca Monte dei Paschi di Siena. – (5) Five-bank sample composed of UniCredit, Intesa Sanpaolo, Monte dei Paschi di Siena, Unione di Banche Italiane and Banco Popolare. – (6) Left-hand scale. Expected number of sample banks with share price returns below the 5th percentile of their distribution (estimated on the last year), conditional on at least one bank having share price returns below that threshold. – (7) Right-hand scale. Percentages. Average change in the share prices of the sample banks, conditional on at least one bank having share price returns below the 5th percentile of their distribution.

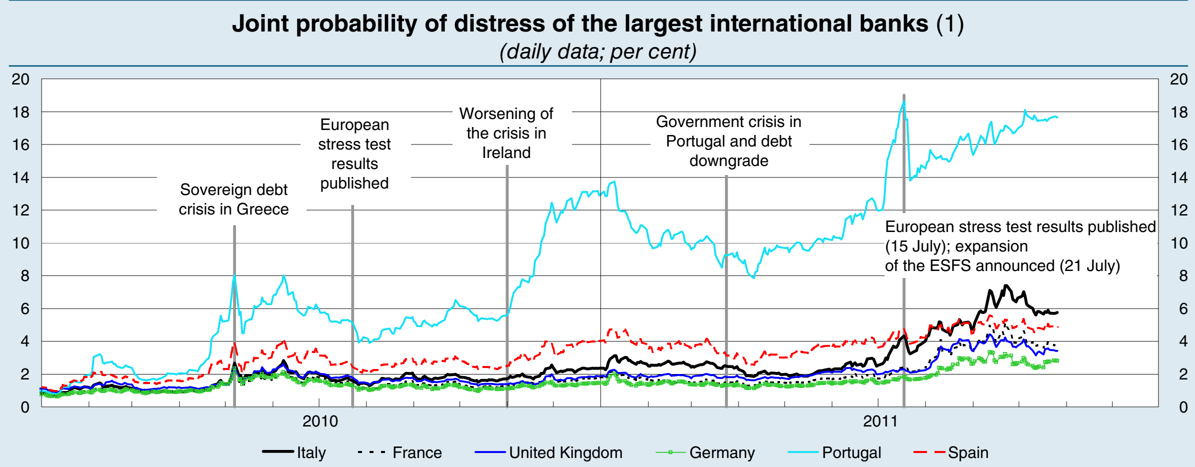
2011, the probability of a financial crisis has increased for all the banking systems considered (Figure B).[1] The increase has been substantial for the largest Portuguese banks, whose JPoD has verged on 20 per cent in some phases. From the summer onwards the JPoD has increased for the Italian and, to a lesser extent, the French and Spanish banks. At the end of October the indicators stood at 5.8 per cent for Italy, 4.9 per cent for Spain, 3.9 per cent for France, 3.4 per cent for the United Kingdom and 2.8 per cent for Germany.

Indications of an increase in systemic risk in the international banking sector are also drawn from the banking stability index (BSI), which provides an estimate of the number of large international banks that would come under distress if one of them became distressed. The BSI for a sample of ten large cross-border banking groups rose sharply in August 2011, reaching 5.5 (Figure C). At the end of October, when the probability that at least one of the sample banks would be in distress was estimated at 9.4 per cent, the index was at around 5, a level it had touched after the Lehman Brothers failure in 2008.

Figure B

Joint probability of distress of the largest international banks (1)

(daily data; per cent)

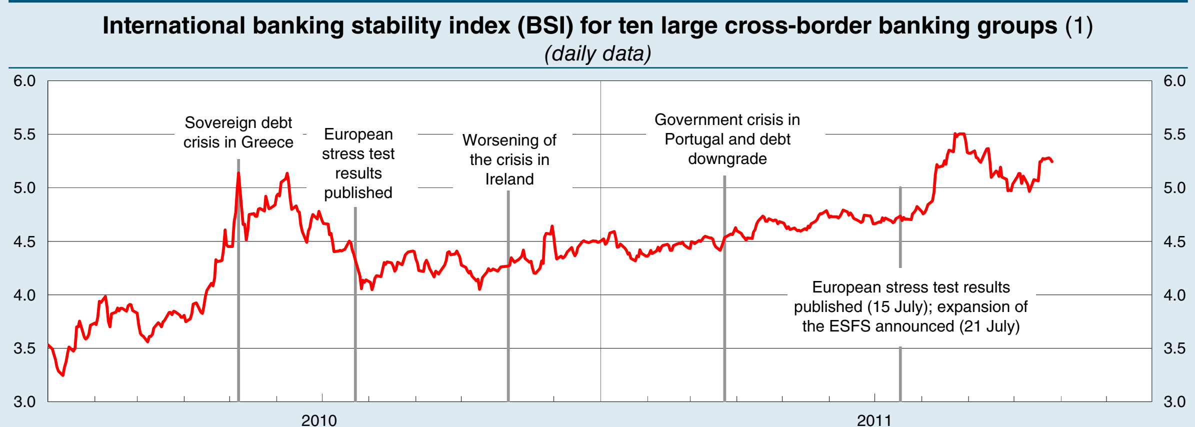


Source: Based on Bloomberg data.
(1) Italy: UniCredit and Intesa Sanpaolo; France: BNP Paribas and Société Générale; Germany: Deutsche Bank and Commerzbank; Ireland: Bank of Ireland and Allied Irish Bank; Portugal: Banco Espirito Santo and Banco Comercial Portugues; United Kingdom: Barclays and Royal Bank of Scotland; Spain: Santander and Banco Bilbao Vizcaya Argentaria. The top two banks of each country were selected for the liquidity of their credit default swap contracts.

Figure C

International banking stability index (BSI) for ten large cross-border banking groups (1)

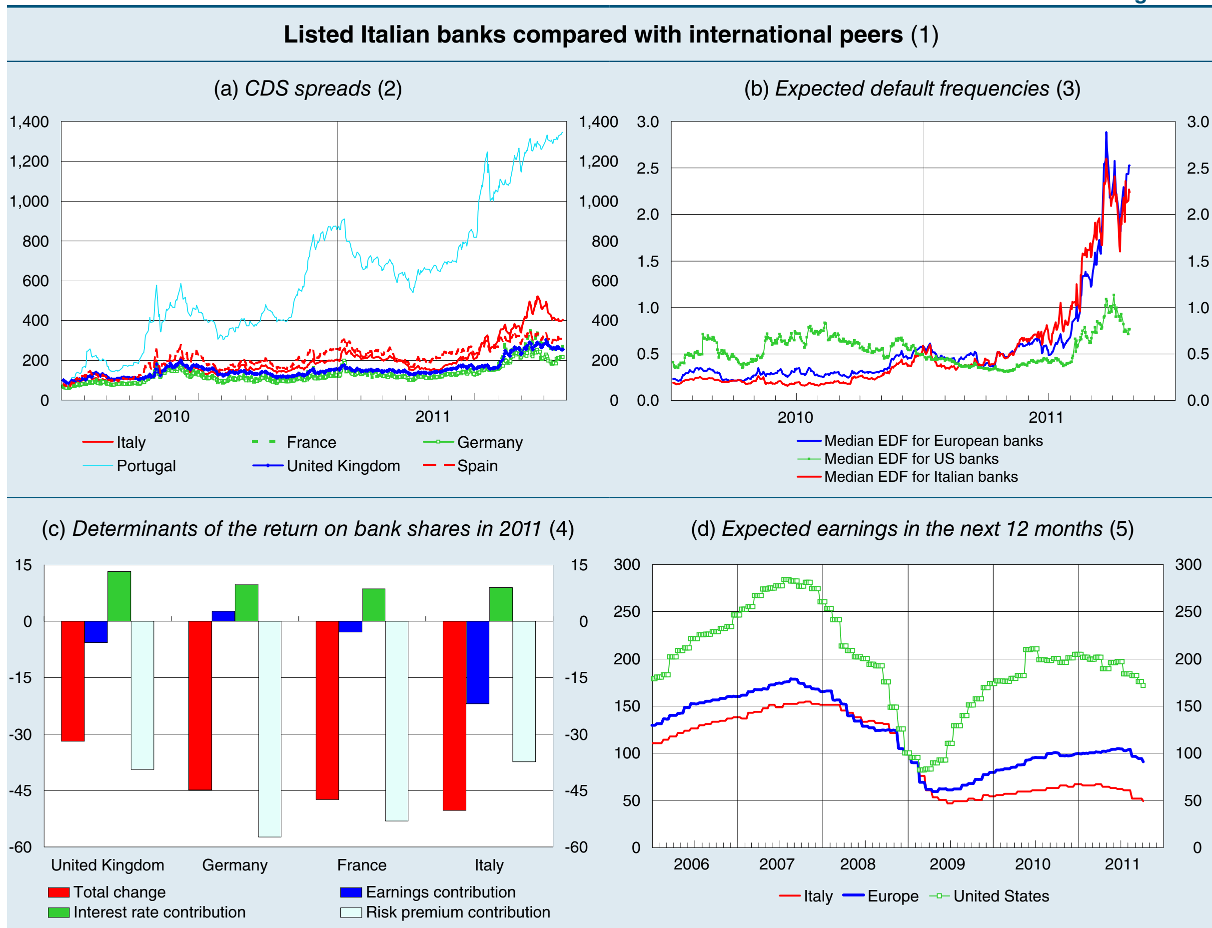
(daily data)



Source: Based on Bloomberg data.
(1) The number of banks is shown on the vertical axis. The ten groups are UniCredit, Intesa Sanpaolo, Banca Monte dei Paschi di Siena, Santander, BNP-Paribas, Deutsche Bank, UBS, Barclays, Lloyds TSB and Citigroup.

[1] The JPoD is estimated with non-parametric methodologies (consistent information multivariate density optimizing) that are able to capture the interactions (linear and non-linear) between a considerable number of banks. See M.A. Segoviano and C. Goodhart, "Banking Stability Measures", IMF Working Paper, 4, 2009.

Figure 3.1



Sources: Based on data from Bloomberg, FTSE, IBES, Moody's KMV and Thomson Reuters Datastream.
(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 Espirito Santo and Banco Comercial Portugues; for the United Kingdom: Barclays, Royal Bank of Scotland, HSBC and Lloyds; for Spain: Santander and Banco Bilbao Vizcaya Argentaria. Panels (b) and (d) 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, Dexia, 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 and Morgan Stanley. Panel (c) refers to the listed banks included in the FTSE indices. – (2) Daily data, in basis points. Spreads on 5-year CDSs. – (3) Daily data, in 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) Percentages. The rate of return is broken down into the contributions of the three fundamental determinants (expected earnings, long-term interest rates and the risk premium) assuming that the risk premium is equal to the difference between the nominal return on the shares (equal to the ratio between earnings per share forecast by the financial analysts of the IBES panel for the following 12 months and the share price index) and the yield on 10-year government bonds. – (5) Average of expected earnings per share in the next 12 months. Weekly data. Indices; the last figure for 2008=100. The data for the UK and Swiss banks have been converted into euros.

3.2 CREDIT

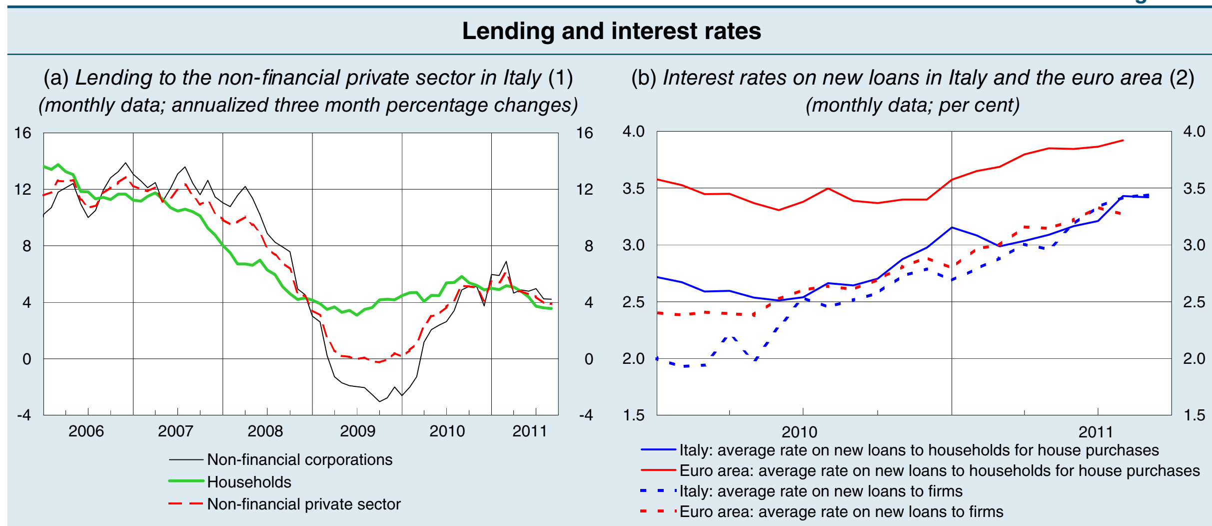
Finance to the economy

Growth in lending has stabilized; lending rates are rising

The growth in credit to the private sector levelled off over the summer, in parallel with the slackening of the recovery in economic activity that in the previous months had fuelled the pick-up in lending to firms (Figure 3.2.a). Recent trends may partly reflect greater caution on the part of banks in their lending decisions and some difficulty in procuring medium- and long-term funds. This reading is consistent both with the rise in lending rates (Figure 3.2.b) – still limited but nevertheless greater (especially for firms) than

Figure 3.2

Lending and interest rates



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. 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 interest rates refer to transactions in euros and are gathered and processed using the Eurosystem's harmonized method.

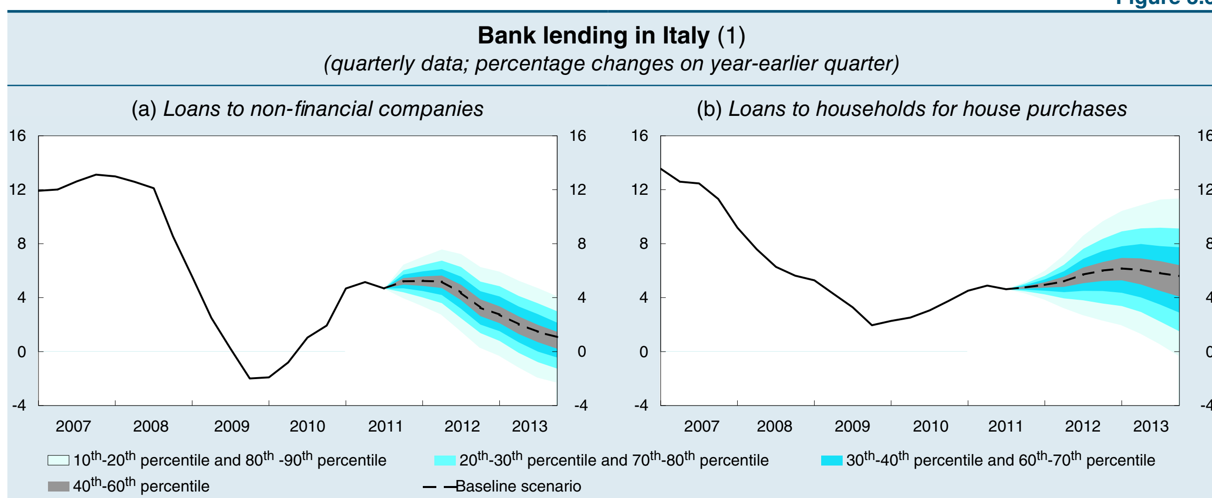
would be warranted by the movements in market rates – and with Italian intermediaries' responses to the euro-area Bank Lending Survey. Surveys of firms also indicate greater prudence in credit supply policies. The indications for the euro area as a whole are similar.

Credit to firms is expected to slow in 2012; mortgage lending to households should maintain a strong pace

According to our estimates the rate of growth in lending to firms will hold at its present levels over the next few months (Figure 3.3.a), sustained by borrowing to finance investment, and then diminish gradually as a result of slackening economic activity and the increase in the cost of credit induced by the recent rise in the rates on government securities. Home mortgage lending to households should continue to grow at about its current pace (Figure 3.3.b), mainly reflecting the stability of house prices. The set of macroeconomic assumptions underlying these projections

Figure 3.3

Bank lending in Italy (1)
(quarterly data; percentage changes on year-earlier quarter)



(1) Loans include an estimate of those not recorded in banks' balance sheets because they have been securitized. The probability distribution of the forecasts, which permits assessment of the size of the risks characterizing the baseline forecast, was calculated on the basis of stochastic simulations performed with random extractions of the distribution of the shocks of the Bank of Italy's quarterly econometric model. The distribution is shown graphically by percentile classes.

incorporates the effect of the fiscal adjustment measures passed during the summer and the rise in the interest rates on Italy's sovereign debt. It is further assumed that the future dynamic of government securities yields is consistent with the market expectations implicit in the current yield curve and that the changes pass gradually through to the lending rates charged to firms and households. [1]

This scenario is subject to downside risks

Several factors could hold back the growth of credit forecast. The persistence of the present strains in banks' wholesale funding could prompt credit rationing (not considered in the estimates), as happened in the quarters following the collapse of Lehman Brothers. The growth in home mortgage lending could also be held back by a weakening of the Italian housing market, whose prospects are still subject to considerable uncertainty, or by a worsening of the financial condition of households.

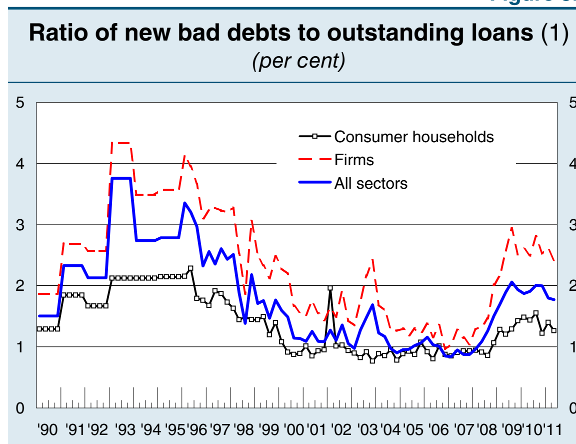
Credit quality

New bad debts have diminished as a share of loans

The ratio of new bad debts to outstanding loans has come down from the peaks recorded in 2009 and 2010 and is now less than half as high as after the recession of the early 1990s (Figure 3.4). However, the new phase of cyclical weakness for the Italian economy could impede the further fall in the ratio and make the return to pre-recession levels a drawn-out process.

Figure 3.4

Ratio of new bad debts to outstanding loans (1)
(per cent)



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.

This hypothesis is consistent with the leading indicators of loan quality. First of all, the index of quality based on movements of loans to non-financial firms between credit quality categories has continued to rise, but the improvement nearly stalled in the first half of 2011 (Figure 3.5.a). Second, the estimates of firms' probability of default have also improved, but only modestly (Figure 3.5.b). And third, in recent months the share of loans to borrowers in temporary difficulty has held practically stable both for firms (at around 6.0 per cent; Figure 3.5.c) and for households (2.3 per cent).

The decline in new bad debts should continue in 2012, but with upside forecasting risk

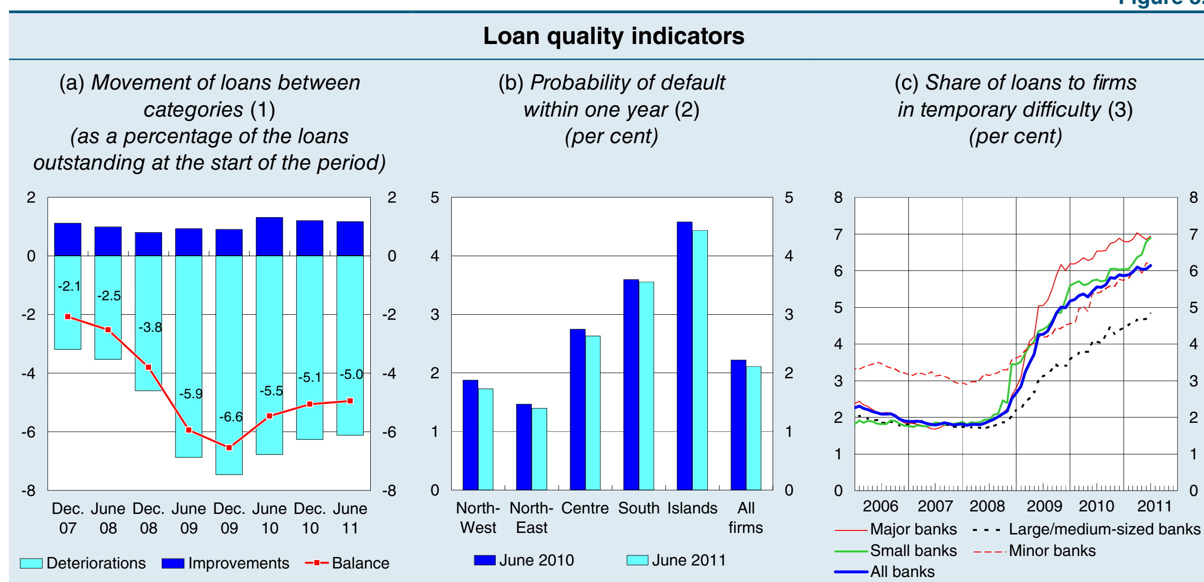
According to our estimates, the improvement in the new bad debt ratio on loans to firms will continue throughout 2012 (Figure 3.6.a), reflecting the recovery in economic activity in 2010 and 2011 with the usual lag. The expected subsequent inversion would be due to an upturn in interest expense, assuming that the cost of credit increases significantly owing to the persistent sovereign debt pressures. For households, the new bad debt ratio is expected to decline through the end of 2013 (Figure 3.6.b), as an effect of the stable housing market that the forecasting scenario assumes.

These estimates are subject to considerable uncertainty. On the whole, upside risks appear to predominate, in connection above all with the slowdown now under way in economic activity and the possible deterioration of conditions in the financial markets.

[1] According to our estimates, an increase in the sovereign debt spread have non-linear effects on banks' lending rates. About half of an increment above a given threshold (which has now been exceeded) is transmitted to the cost of credit within three months; the full increment is passed on within a year. Transmission is slower and incomplete for mortgage loans to households.

Figure 3.5

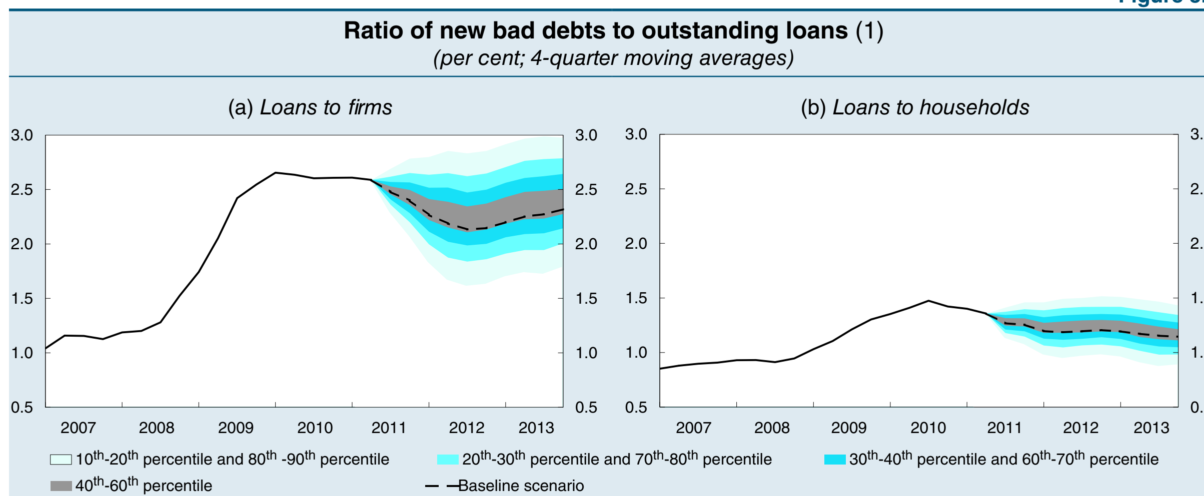
Loan quality indicators



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 share 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 indicators of vulnerability derived from company accounts and indicators of financial strain in credit relationships. – (3) Loans classified by intermediaries as substandard and restructured loans. The division into size classes is based on the composition of banking groups at October 2011 and total non-consolidated assets at December 2008. Major banks: banks belonging to the UniCredit, Intesa Sanpaolo, Banca Monte dei Paschi di Siena, Unione di Banche Italiane and Banco Popolare groups. Large and medium-sized banks: banks belonging to groups or independent banks with total assets ranging from €21,532 million to €182,052 million. Small banks: banks belonging to groups or independent banks with total assets ranging from €3,626 million to €21,531 million. Minor banks: banks belonging to groups or independent banks with total assets less than €3,626 million. Excludes branches of foreign banks.

Figure 3.6

Ratio of new bad debts to outstanding loans (1)
(per cent; 4-quarter moving averages)



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. 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 of the distribution of the shocks of the Bank of Italy's quarterly econometric model. The distribution is shown graphically by percentile classes.

The growth in the major banks' non-performing positions has slowed

According to the consolidated reports of the top five Italian banking groups, the six-month rate of increase in non-performing loans slowed to 4.4 per cent in June (Table 3.1), compared with 7.3 per cent in June 2010. Net of value adjustments, non-performing positions remained unchanged at 60 per cent of regulatory capital. The bad debt coverage ratio (the ratio of value adjustments to the gross

Table 3.1

Quality of the loans of the five largest Italian banking groups (1)
(millions of euros and per cent)

	Amount	Percentage change on December 2010	Share of total loans to customers		Cover ratio (2)	
	June 2011		Dec. 2010	June 2011	Dec. 2010	June 2011
Gross non-performing loans	151,515	4.4	10.7	11.1	41.3	42.0
Bad debts	86,175	7.0	5.9	6.3	57.7	57.9
Substandard loans	42,739	-0.8	3.2	3.1	24.6	24.6
Restructured loans	15,134	7.5	1.0	1.1	14.3	15.6
Past-due loans	7,467	0.7	0.5	0.5	11.3	10.8

Sources: Intermediaries' press releases, financial reports and presentations to analysts.
(1) UniCredit, Intesa Sanpaolo, Banca Monte dei Paschi di Siena, Banco Popolare and Unione di Banche Italiane. Loans to non-bank customers, gross of value adjustments. – (2) Value adjustments as a percentage of the corresponding gross exposure.

amount of the loans classified as bad debts) was 57.9 per cent, five percentage points below the average for 2006-08. It is estimated that bringing the ratio back up to pre-crisis levels would require additional allocations to provisions of €4 billion (0.3 per cent of total exposure).

Exposure to euro-area sovereign risk

Italian banks' exposure to Greece, Ireland, Portugal and Spain is low

In June, Italian banks' exposure in loans and securities to Greece, Ireland, Portugal and Spain amounted to €36 billion, or 1.3 per cent of their total assets (Table 3.2). Within this aggregate, holdings of government securities came to €5.6 billion, a very modest amount by comparison with other countries. The value of the financial instruments issued in those four countries and deposited with Italian banks by customers (for custody, administration or portfolio management) was €21.5 billion, equal to 2.1 per cent of total bonds held on deposit. Though small, this exposure could entail reputational risks for the banks.

Table 3.2

Consolidated exposure of Italian banking groups and banks vis-à-vis euro-area residents by country and sector (1)
(billions of euros at 30 June 2011)

	Public sector	Banks	Financial corporations	Households and firms	Total	As a % of total exposures reported to the BIS (2)
Italy	262.9	125.3	106.1	1,463.6	1,957.8	301.3
Germany	36.8	39.6	15.9	97.3	189.5	15.6
Austria	10.0	9.5	2.0	55.4	76.9	38.5
France	1.7	21.0	3.7	8.0	34.4	3.7
Spain	4.4	4.7	4.8	6.9	20.8	4.1
Luxembourg	0.4	4.6	10.1	3.7	19.0	5.1
Netherlands	0.3	5.0	6.6	6.2	18.1	3.2
Ireland	0.4	3.1	6.3	0.6	10.4	3.2
Portugal	0.4	1.3	0.2	0.8	2.7	1.9
Greece	1.3	0.1	0.1	1.1	2.6	2.9
Other countries (3)	4.3	2.5	1.1	17.3	25.2	4.2
Total	323.0	216.7	156.9	1,661.0	2,357.5	

Sources: Consolidated supervisory statistical reports for banking groups, individual supervisory statistical reports for banks not belonging to a group.
(1) Exposure to the "ultimate borrower", gross of bad debts and net of write-offs. – (2) Per cent of total foreign exposures vis-à-vis each country at end-June 2011 reported to the BIS by a large set of international intermediaries.– (3) Slovenia, Slovakia, Belgium, Finland, Cyprus and Malta.

In June the total exposure of the top five banking groups to the Italian state (including both loans and securities holdings) amounted to €173 billion (63 per cent of their total sovereign debt exposure), equal to 9.5 per cent of their total assets. The government securities component was worth €128 billion, about a third of it in the trading book.

Exposure to foreign residents

Foreign claims have diminished slightly ...

The loan and securities exposure of Italian banking groups to non-residents amounted to €668 billion at the end of June, down 4.4 per cent from a year earlier (Table 3.3). Some 60 per cent of the foreign assets is held by units, mainly subsidiaries, located in the counterparty's country; 90 per cent is held by the two largest groups, which operate through local banks both within and outside the euro area. Foreign claims make up 45 per cent of the two groups' total loan portfolio.

Table 3.3

Consolidated exposure of Italian banking groups and banks vis-à-vis non-residents (1)
(billions of euros)

	30 June 2010		30 June 2011		% change in loans and securities	As a % of total exposures reported to the BIS (2)
	Loans and securities	Guarantees, commitments and derivatives	Loans and securities	Guarantees, commitments and derivatives	June 2011/ June 2010	
Euro area	431.6	205.3	400.7	192.1	-7.2	7.1
Other industrial countries	92.9	240.3	88.2	205.3	-5.0	1.1
International institutions	4.0	0.5	3.7	0.7	-8.5	4.2
Developing countries	157.6	39.1	164.0	41.2	4.1	4.7
Europe and former USSR	136.8	30.0	140.8	31.8	2.9	14.1
of which: Poland	*31.5*	*6.3*	*32.8*	*7.3*	*3.9*	*15.8*
Croatia	*22.7*	*4.6*	*24.0*	*4.2*	*5.8*	*42.0*
Hungary	*17.7*	*2.0*	*16.2*	*1.7*	*-8.7*	*20.6*
Russia	*16.2*	*3.6*	*16.8*	*3.7*	*4.0*	*12.4*
Czech Republic	*10.1*	*3.1*	*11.5*	*2.9*	*14.8*	*7.8*
Romania	*9.1*	*2.2*	*9.5*	*2.3*	*3.9*	*11.8*
Bulgaria	*6.1*	*1.8*	*6.0*	*1.2*	*-2.2*	*23.9*
Serbia	*5.2*	*1.2*	*5.9*	*1.4*	*13.4*	*29.6*
Turkey	*2.8*	*3.1*	*3.4*	*3.4*	*20.5*	*2.5*
Ukraine	*5.4*	*0.3*	*4.5*	*1.2*	*-16.4*	*19.2*
Africa and Middle East	8.9	4.2	8.3	3.7	-6.5	2.0
Asia and Pacific	7.6	3.9	10.0	4.1	32.1	0.8
South and Central America	4.3	1.0	4.9	1.7	12.0	0.6
Offshore centres and n.e.c.	12.8	5.9	11.6	4.6	-9.0.	0.8
Total exposure to non-residents	698.9	491.2	668.2	443.9	-4.4	3.5
Memorandum item						
Total exposure (3)	2,582.3	759.0	2,625.9	694.5	1.7	

Sources: Consolidated supervisory statistical reports for banking groups, individual supervisory statistical reports for banks not belonging to a group.
(1) Exposure to the "ultimate borrower", gross of bad debts and net of write-offs. – (2) Per cent of total foreign exposures vis-à-vis each country in June 2011 reported to the BIS by a large set of international intermediaries. – (3) Total exposure to residents and non-residents.

... with an increase vis-à-vis Central and Eastern European countries, which show good economic prospects ...

The exposure to the countries of Central and Eastern Europe has increased. Italian banks have extensive operations in those countries, whose economic prospects look positive (the IMF estimates average growth for the area at 4.3 per cent in 2012 and 2.7 per cent in 2013, with a fair degree of uniformity among countries). Given this outlook and the good economic performance of some countries, the two largest Italian banking groups have revised their allocations for risk in the area

(loan loss provisions in proportion to outstanding loans), lowering it to 1.51 per cent from 1.80 per cent in 2010. They have pursued particularly prudent policies where credit risk is higher (in Ukraine, Romania and Hungary the write-downs were 3.82, 3.21 and 3.16 per cent respectively). The amount of value adjustments to non-performing loans in all the countries of the area remains high (for bad debts, about 70 per cent).

... but not without risk

The financial crisis and the economic slowdown in the euro area could have adverse effects on these economies. In addition, the financial condition of households and firms remains vulnerable, owing in part to the high percentage of loans not denominated in local currency (47.8 per cent of the total in these countries, not considering local-currency loans indexed to foreign currencies, on which no information is available).[2] Finally, property prices in the region are still declining, although some signs of normalization have emerged, notably in Poland. The main risk factor for banking business in these countries continues to be the potential deterioration in credit quality.

3.3 BANK FUNDING, LIQUIDITY RISK, REFINANCING RISK

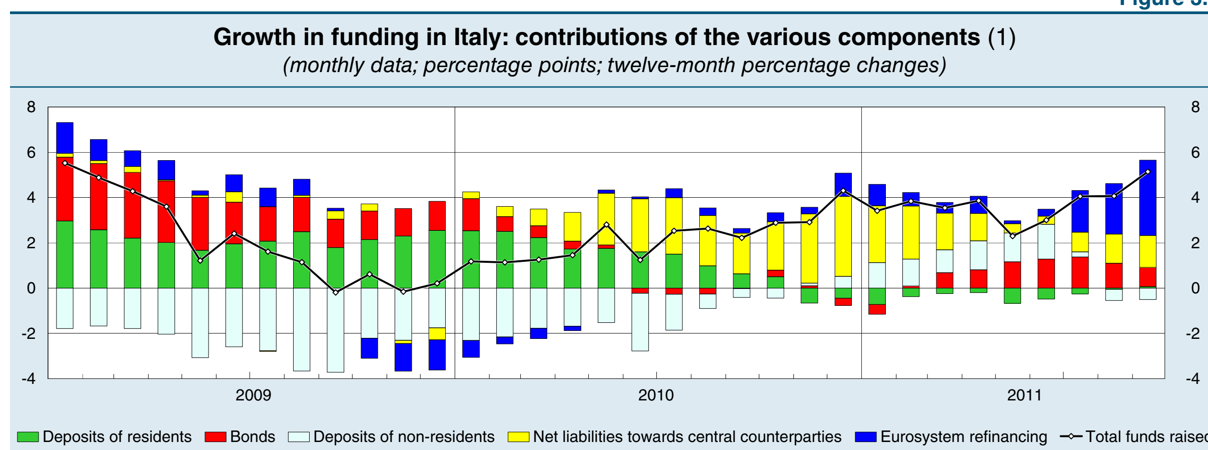
The growth rate of funding has been stable but its composition has changed

Italian banks' total funding has continued to grow, with a twelve-month rate of about 5 per cent in September (Figure 3.7), but its composition has changed over time. Banks' large bond issues in the early months of the year and their growing recourse to Eurosystem refinancing from the summer onwards have offset the slowdown in foreign fund-raising in the form both of deposits of non-residents and repos carried out through central counterparties. The slightly negative contribution from residents' deposits (which for that matter was cancelled out in August) was entirely due to the financial firms component.[3] The deposits of domestic households continued to expand, albeit at a moderate pace.

Figure 3.7

Growth in funding in Italy: contributions of the various components (1)

(monthly data; percentage points; twelve-month percentage changes)



Source: Supervisory statistical reports.
(1) The sum of the contributions is equal to the percentage change over twelve months in the total funds raised. The percentage changes in the single components are calculated net of reclassifications, exchange-rate variations, value adjustments and other variations not due to transactions. Liabilities towards resident MFIs are not considered. Net liabilities towards central counterparties are the funds raised by way of repos with non-residents via central counterparties.

[2] Among the main countries under consideration here, the percentage is particularly high (60 per cent or more) in Romania, Serbia, Hungary, Bulgaria and Croatia, more limited (under 25 per cent) in Poland, Slovenia and Slovakia. The growth in the share of foreign-currency loans since the middle of the last decade has been accompanied by a rise in the ratio of lending to deposits, especially pronounced in Latvia, Romania and Lithuania.
[3] This component was affected by extraordinary corporate actions on the part of an intermediary in 2010, which led to the transfer abroad of the depositary bank services supplied to an investment fund management company.

Retail funding has expanded, the funding gap is still small ...

Retail funding has grown, thanks mainly to the increase in the bond component. In June retail funding accounted for 54.1 per cent of the total, compared with 48.8 per cent in the rest of the euro area (Figure 3.8). Both the costs and the volumes of retail funding tend to be affected only modestly by financial market strains and with a lag compared to the other forms of funding.

Italian banks' funding gap (the portion of lending not financed by retail funding) held stable at the previous year's low levels, around 9 per cent.

... but the cost of funding has increased

From the end of 2010 through September the overall cost of funding rose by 0.4 points, to 1.7 per cent (Figure 3.9). The increase stemmed partly from a shift in the composition of retail funding (sight deposits were replaced by repos, which are more remunerative for customers) and partly from the increase in the remuneration of the individual components. The rates on overnight deposits and on deposits redeemable at notice rose in line with what has been observed in similar cyclical phases in the past. Those on new deposits with agreed maturity and on repos, which are more sensitive to money market conditions, rose slightly more. In part, this may have reflected heightened competition among banks in these segments at a time of strains in the wholesale markets. Overall, the increase in the average cost of funding was roughly in line with that in money market rates.

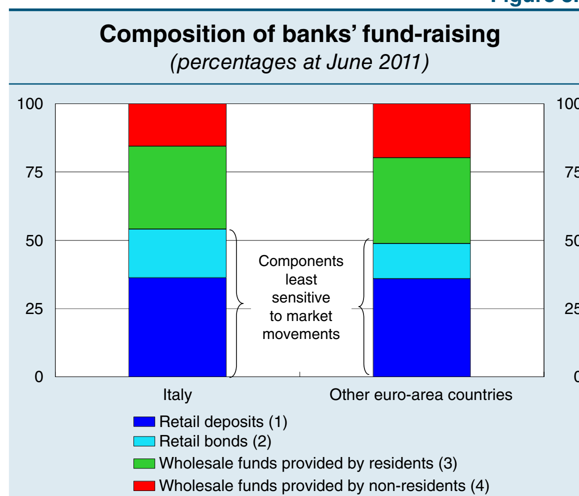
The leading banks brought forward the refinancing of bonds maturing in 2011 ...

In the first few months of the year the leading Italian banks made massive recourse to the wholesale bond markets. By July their gross issues were already greater than the volume of securities maturing in the whole of 2011 (Figure 3.10).

Figure 3.8

Composition of banks' fund-raising

(percentages at June 2011)

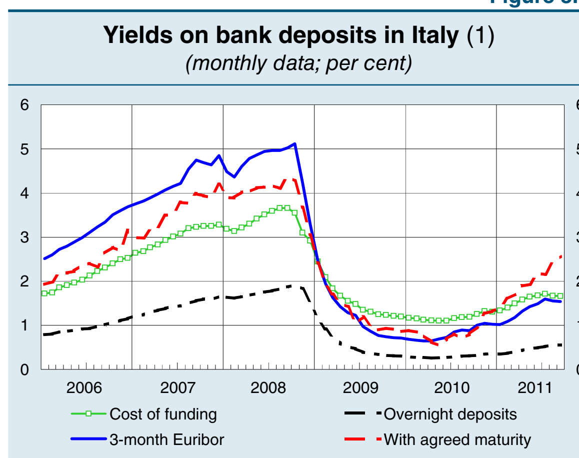


Source: Unconsolidated supervisory statistical reports.
(1) Deposits of the private non-financial sector and general government. – (2) Debt securities net of those held by MFIs resident in the euro area. Only for Italy is it possible to divide this component into bonds held by households (13 per cent at June 2011) and securities held by other investors (5 per cent). – (3) Deposits of resident MFIs and financial and insurance companies and bonds held by resident MFIs. – (4) Deposits of non-resident MFIs and financial and insurance companies and bonds held by non-resident MFIs.

Figure 3.9

Yields on bank deposits in Italy (1)

(monthly data; per cent)



Sources: Based on Bank of Italy and Thomson Reuters Datastream data.
(1) The deposit rates refer to transactions in euros; they are gathered and processed using the Eurosystem's harmonized method. The cost of funding is defined as the average of the interest rates paid on the various components (including the interbank component), weighted on the basis of the outstanding amount of each component.

... but fund-raising has been affected by the illiquidity of capital markets ...

However, in recent months the international wholesale funding markets have seized up. Bond placements by European intermediaries have been extremely limited since July; there have been sporadic issues of covered bonds.

The markets in certificates of deposit and commercial paper have also become thinner, especially in the dollar segment. Between June and September the stock of funds raised by Italian banks with these instruments fell from €72 billion to €24 billion. The potential risks for Italian banks from a further

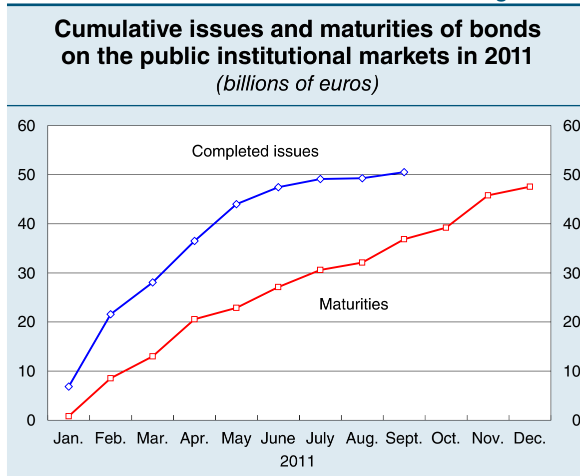


Figure 3.10

Cumulative issues and maturities of bonds on the public institutional markets in 2011
(billions of euros)

Source: Dealogic.

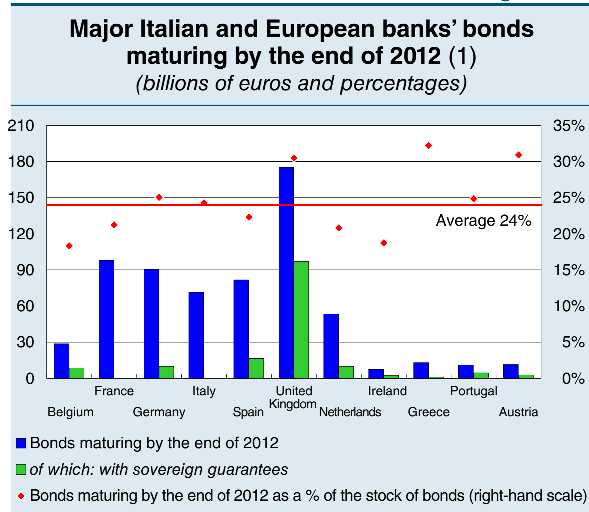


Figure 3.11

Major Italian and European banks' bonds maturing by the end of 2012 (1)
(billions of euros and percentages)

Source: Dealogic.
(1) The data refer to bonds not placed with retail investors and not held on the balance sheet. The sample is made up of the five leading Italian groups, the five largest intermediaries in France, Spain, Germany and the United Kingdom, the three largest in the Netherlands, Portugal and Greece, and the two largest in Belgium, Austria and Ireland. The stock of bonds is calculated as the sum of the securities maturing by 2041.

drying up of these markets are however limited by these instruments' very small share in their total funding (0.9 per cent). During the summer US money market funds basically stopped acquiring short-term liabilities issued by Italian banks, which already made up just a fraction of their total assets (1.3 per cent of the investments of the leading funds as of December 2010). By contrast, this source of funding is still important for French and German banking groups, which at the end of August accounted for respectively 11.2 and 4.8 per cent of the US money market funds' investments. In addition, the very small dollar-denominated share of Italian banks' assets limits the risks that would come from a further reduction in the availability of financing in dollars.

... just as large volumes of wholesale bonds near maturity

In the coming months European banks will need to tap the wholesale bond markets for considerable amounts. For the 32 main Italian banking groups subject to weekly monitoring of liquidity, the securities maturing by the end of 2012, concentrated in the first and fourth quarters of the year, amount to 3.3 per cent of their total liabilities, or €88 billion. The situation of the five largest groups is broadly similar to that of the other leading European intermediaries (Figure 3.11), with maturing bonds equal to about a quarter of the total outstanding.

Italian banks have strengths ...

In facing the huge volume of redemptions, Italian banks will benefit from strengths such as the large retail share of bond funding (Figure 3.12), with its associated stability, the absence of maturing securities backed by government guarantees, which will curb the increase in the cost of refinancing, and a liquidity position that is still balanced, although down in recent months (Figure 3.13).

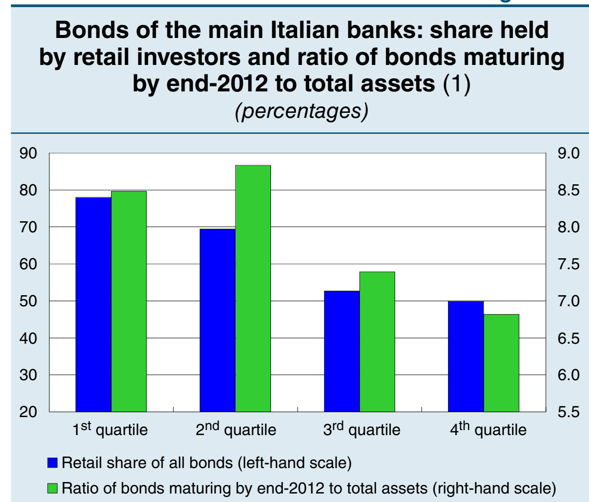


Figure 3.12

Bonds of the main Italian banks: share held by retail investors and ratio of bonds maturing by end-2012 to total assets (1)
(percentages)

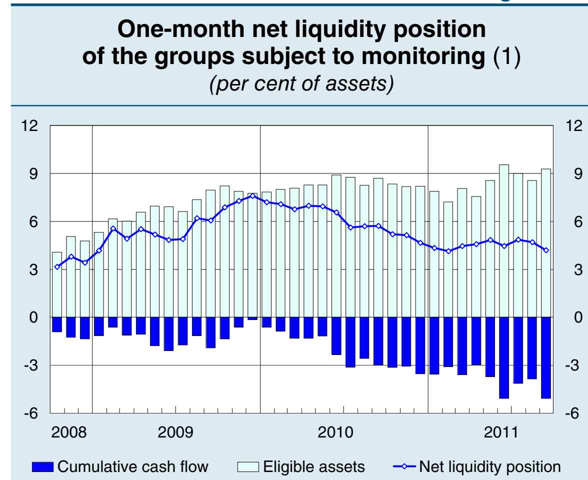
Source: Bank of Italy data from the weekly monitoring of 32 banking groups' net liquidity position; the data refer to the situation at end-August 2011.
(1) The quartiles are calculated on the basis of banks' size in terms of total assets (the first quartile comprises the smaller banks).

... but the availability of wholesale funding represents the main source of uncertainty

However, for Italian banks, as for other European banks, the main source of risk is the potential difficulty of procuring adequate volumes of medium- and long-term funds. The deterioration in the Italian Republic's credit standing is being reflected in a reduction in the value of government securities holdings, with repercussions on banks' liquidity (see the box "The impact of sovereign risk on banks' funding"). In the absence of a reopening of the wholesale markets there could be a further increase (following that recorded in recent months) in refinancing with the Eurosystem, which has intensified its liquidity support to markets and banks (see *Economic Bulletin*, October 2011). In particular, given the ample availability of assets eligible as collateral with the central bank, Italian intermediaries will be able to benefit from the introduction of auctions of 12-month funds at fixed rates and with full allotment. Moreover, the new €40 billion covered bond purchase programme that the ECB announced in October provides an opportunity for Italian banks to increase their use of this relatively low-cost funding instrument.

Figure 3.13

One-month net liquidity position of the groups subject to monitoring (1)
(per cent of assets)



Source: Bank of Italy data from the weekly monitoring of 32 banking groups' net liquidity position.
(1) Averages. The net liquidity position is calculated as the sum of holdings of assets eligible for use as collateral for Eurosystem refinancing operations plus 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.

3.4 OTHER RISKS

Interest-rate risk

The exposure to interest-rate risk is limited

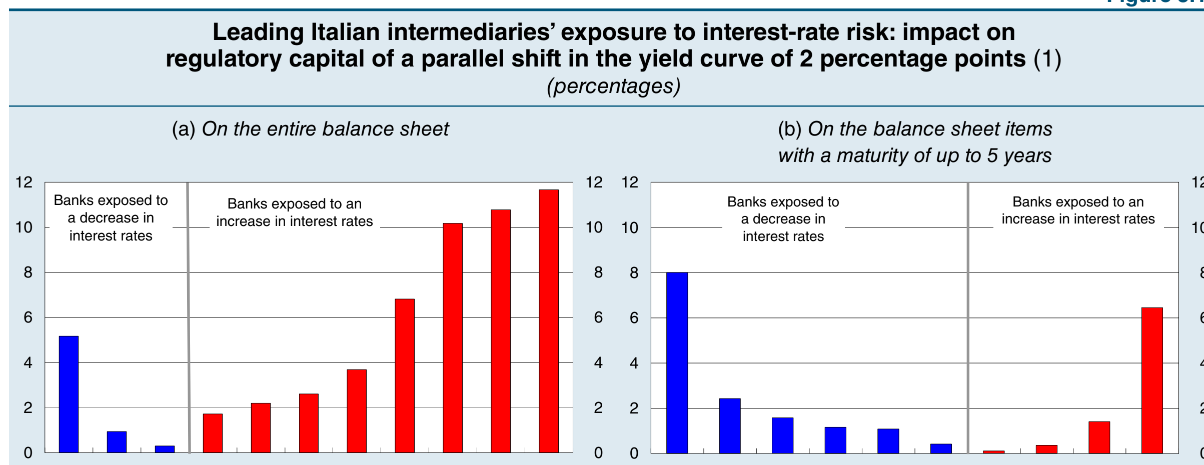
The data on a sample of eleven large banks that use internal models to quantify the exposure to movements of the risk-free interest rate curve (proxied by the curve of swap rates) show that even large changes in market interest rates would have limited effects (Figure 3.14.a). For all the banks the change in the value of assets and liabilities produced by a parallel shift of 200 basis points over the entire curve would have a significantly smaller impact than the threshold established by the Basel Committee (20 per cent of regulatory capital). In most of the cases considered, the adverse scenario is represented by a rise in the yield curve, the effect of which would mainly be to reduce the value of mortgage loans and the fair value of long-term securities included in the banking book.

Restricting the analysis to the items that mature within five years the estimates of interest-rate risk are lower; for most of the sample banks the adverse scenario is a downward shift in the yield curve, which would compress net interest income (Figure 3.14.b).

The estimates of interest-rate risk depend to a significant extent on assessments of the duration of asset and liability items on the banking book that do not have a predetermined duration. Especially important in this respect is the evaluation of the duration of retail deposits (see the box "The methodologies for measuring interest-rate risk" in *Financial Stability Report*, December 2010). The sample banks assign such deposits a duration of about two years. Increased competition in the deposit market could make it necessary to revise these estimates, a process that is already under way at some banks.

Figure 3.14

Leading Italian intermediaries' exposure to interest-rate risk: impact on regulatory capital of a parallel shift in the yield curve of 2 percentage points (1)
(percentages)



Source: Monitoring of the interest-rate risk of eleven large banking groups.
(1) For each of the sample banks, represented anonymously, panels (a) and (b) show the percentage ratio of the decrease in value of their net assets to their regulatory capital of a parallel shift of ± 200 basis points over the entire risk-free yield curve. In panel (a) the shift of 200 basis points is applied to all the items of the banking book. By contrast, in panel (b) fixed-rate items with a maturity of more than five years are excluded. The medium-term analysis makes it possible to take account of the lower variability of long-term yields compared with that of short-term yields. Panel (b) excludes a bank for which data were not detailed enough.

Market and counterparty risk

The market risk of the trading book has decreased ...

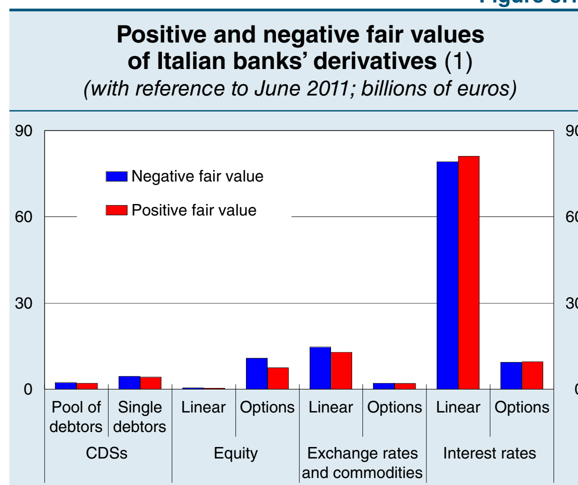
The market risk of the trading book of the banks most active in the financial markets, which are those calculating their capital requirements using internally developed Value at Risk (VaR) models, fell steadily from the middle of 2010 onwards and then stabilized in the first half of this year. This development reflects both the low volatility of the markets in the second half of 2010 and the early part of this year and the reduction in the size of the trading book.

... while the overall risk (including the banking book) remains unchanged

The market risks associated with the banking book have increased, instead, above all as a consequence of the large increase in the volume of assets – largely public securities – that banks classify in this segment in order to accumulate reserves of liquid instruments and take advantage of their favourable prudential treatment (whereby highly rated securities do not absorb capital). Overall, the VaR calculated considering both the trading book and the banking book has remained unchanged. Looking ahead, however, the increase in volatility observed from last summer onwards on financial markets (especially that for Italian public securities) will likely lead to a large new increase in market risks estimated by VaR. A boost to the capital requirements associated with the trading book will come, as of next year, from the entry into force of the new rules established by the Basel Committee (see the box "Calculation of capital charges for market risk" in *Financial Stability Report*, December 2010).

Figure 3.15

Positive and negative fair values of Italian banks' derivatives (1)
(with reference to June 2011; billions of euros)



Source: BIS survey of OTC derivatives markets.
(1) Market value of derivatives contracts of the 5 Italian banks participating in the BIS survey, subdivided into positive and negative values. Each column gives the total value of the contracts grouped according to type of underlying risk factor: interest rates, exchange rates, equity, credit and commodities. For each factor the chart shows the contribution of the various instruments classed by complexity: linear products consist mostly of forward and swap contracts. Credit default swaps are disaggregated into hedges on single issuers (debtors) and groups of issuers (pools).

The gross value of derivatives is falling sharply; counterparty risk is low

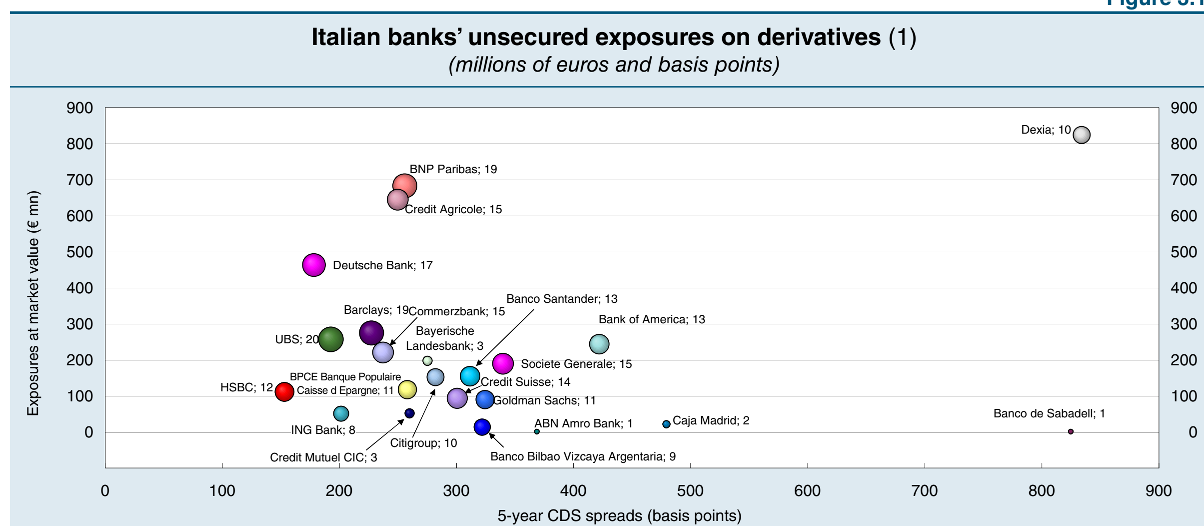
Three quarters of Italian banks' counterparty risk stems from the largest banks' positions in derivatives traded on OTC markets. The rest stems from repos with financial counterparties.

In June 2011 the gross fair value of Italian banks' derivatives (calculated as the sum of their positive and negative positions) amounted to €243 billion (Figure 3.15), only a little more than half the figure in June 2010. The bulk of the contracts involve instruments for hedging against interest-rate risk (mostly swaps between fixed- and floating-rate contracts). Italian banks' net exposure at the end of September 2011 was €7 billion, down by 28.5 per cent compared with October 2010.[4] About 20 per cent of this amount refers to the exposure of the Italian branches of foreign banks to their parent companies. The rest refers almost entirely to counterparties with high credit ratings, with which all the Italian banks operating on the financial markets do business (Figure 3.16). Overall, in June 2011 the capital charges in relation to counterparty risk were down by about 20 per cent compared with a year earlier.

Figure 3.16

Italian banks' unsecured exposures on derivatives (1)

(millions of euros and basis points)



Source: Supervisory statistical reports.
(1) Horizontal axis: spreads on 5-year credit default swaps for foreign counterparties at the end of August 2011. Vertical axis: the counterparty risk of the Italian banking system vis-à-vis foreign intermediaries, measured as the exposure on derivatives with positive fair value after the application of netting agreements (if the positive fair value of the contracts covered by the netting agreement is greater than the negative value, the exposure is equal to the net balance; in the opposite case, in which the Italian bank is a net debtor, the counterparty risk exposure is set at zero). The size of each circle is proportional to the number of banks exposed, specified alongside each foreign intermediary's name. An exposure of about €1 billion to KFW Bank, for which CDS data are not available, is not shown. Counterparties with exposures of less than €50 million are excluded.

Operational risk

Operational losses continue to decline ...

In 2010 Italian banks' total operational losses recorded another small decrease in relation to gross income, falling to 2.6 per cent, above all as a result of the contraction in staff fraud and the reduction in information system outages. On the other hand, there was an increase in the losses deriving from disputes with clients as a result of negligence or breach of contract in the issue and placement of securities. Increasingly large losses are being incurred on lending transactions (negligence and errors in the granting, disbursement and management of loans, and customer fraud); the appearance of such risks affect the ability to recover uncollectable loans.

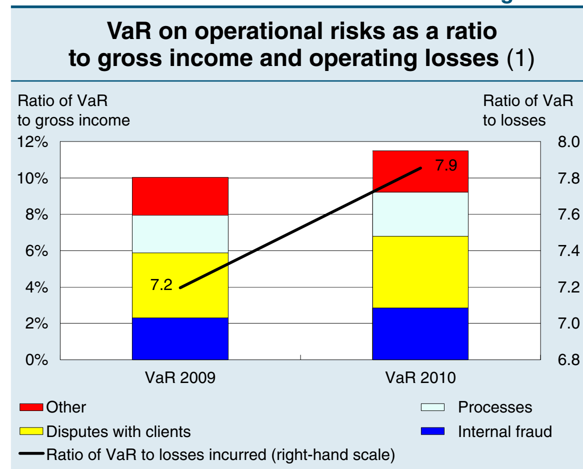
[4] The applicable rules require counterparty risk to be measured by netting derivatives with a positive and a negative fair value, provided the contracts refer to the same counterparty and the latter has signed a netting agreement. Another factor further reducing this type of risk is the collateral (in cash and securities) that each intermediary requires counterparties to provide when its net creditor balance exceeds a given threshold.

... but could rise in the future

In the last few months the number of banks that calculate their capital charges in respect of operational risks using advanced methods (see the box "The regulation of operational risk" in *Financial Stability Report*, December 2010) has increased and they now account for half the banking system's total capital charges. In 2010 the VaR of these banks' operational risks rose from 10 to 11.5 per cent of gross income (Figure 3.17). The increase was largely due to banks' caution in calculating their VaRs in view of the deterioration in macroeconomic conditions and the large operational losses incurred by foreign banks (used, together with scenario analysis, to quantify the exposure to operational risks).

Figure 3.17

VaR on operational risks as a ratio to gross income and operating losses (1)



Sources: Company data and supervisory statistical reports for the banking groups that adopt the Advanced Measurement Approach.
(1) The percentage ratio of VaR to gross income is shown on the left-hand scale. The ratio of VaR to losses incurred is shown on the right-hand scale.

3.5 PROFITABILITY

Profitability is stable

In the first half of 2011, the return on capital and reserves (ROE) of the 14 largest listed banking groups was 4.5 per cent on an annual basis, the same as in the first half of 2010. Growth in net interest income (2.8 per cent) was slowed by the greater cost of raising funds; the strong increases in gross income (4.9 per cent) mainly reflects the improved results of trading business, which more than compensated for the slight decline in fee income (-2.2 per cent).

Loan losses have declined

Thanks to the stability of operating expenses (with the cost-to-income ratio falling by about three percentage points to 64 per cent), operating profits increased by 10.4 per cent. Allocations to provisions fell by 10.4 per cent overall, and those due to a deterioration in loan quality declined by 14.7 per cent. Although gross earnings increased by 35.6 per cent, after-tax profit gained only 2.2 per cent, having benefited less than the previous year from profit on assets in the process of being liquidated.

The outlook for profitability remains uncertain

The current economic situation and tensions in the financial markets cloud the profit outlook of Italian banks. Profitability is affected by low growth in the economy: a deceleration in lending would reduce net interest income, which could also be affected by the rise in funding costs if there were a lasting increase in sovereign risk; the economic slowdown would affect credit quality. Income from trading will be affected in the second part of the year by the phase of high volatility in the capital markets. Despite the demonstration of soundness during the financial crisis, which Italy weathered with no need for government support, and the recent capital increases, there is still considerable uncertainty over the outlook for Italian banks' profitability; in recent months financial analysts have lowered their forecasts for the earnings of the major Italian banking groups for the three years 2012-14. In this framework, Italian banks must step up their efforts to rationalize costs in relation to income.

3.6 BANKS' CAPITAL

The strengthening of the capital base has continued

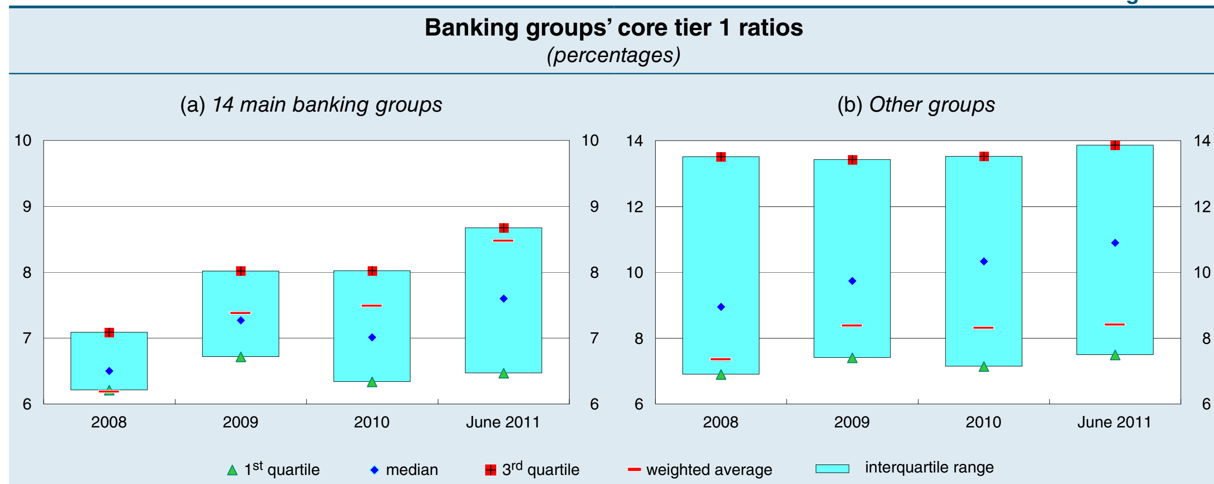
The capital ratios of the 14 largest listed Italian banking groups have improved strongly. Last June the capital increases completed by some groups (equal to €8 billion), together with the partial retention of earnings and the reduction of risk-

weighted assets (through asset disposals and reallocations towards low-risk instruments), had raised the average core tier 1 ratio to 8.5 per cent, from 7.5 per cent in December 2010 (Figure 3.18). The tier 1 ratio increased from 8.8 per cent in December to 9.7 per cent in June and the total capital ratio from 12.3 to 13.2 per cent.

The ratios will improve further as a result of capital increases worth about €2.6 billion completed since the end of June. Overall, the impact of these increases on the average core tier 1 ratio will be about 20 basis points of risk-weighted assets.

Figure 3.18

Banking groups' core tier 1 ratios
(percentages)



Source: Consolidated supervisory statistical reports.

Capital ratios will be increased following the recent European initiatives

The outlook for banks' capital adequacy is influenced by low profitability and the high cost of capital. Although they all passed the stress tests in July 2011, the large Italian banks must continue their capital strengthening in order to ensure adequate capacity to absorb the effects of possible new financial strains in the euro area: initiatives at European level aim to increase the capitalization of the main banks, taking account of exposure to sovereign risk. It is considered necessary to strengthen capital buffers in order to assure investors on the wholesale funding markets and to provide financial support to the economy.

On 26 October the European Banking Authority (EBA) published information on the measures agreed at European level to strengthen banks' capital and revive medium-term funding. In particular, the EBA released the provisional results of an exercise involving 70 European banks to measure the need for capital strengthening in view of the current market strains. The formation of a temporary capital buffer will enable the banks to withstand shocks and maintain capital adequacy. The objective is a core tier 1 ratio of 9 per cent by June 2012.

For Italy, the EBA exercise involved the top five banking groups (UniCredit, Intesa San Paolo, Banca Monte dei Paschi di Siena, Banco Popolare and Unione di Banche Italiane). Based on the accounts at June 2011 and the changes in sovereign debt securities prices through September, reaching the target core tier 1 ratio of 9 per cent would require a total of €14.8 billion. This remains a preliminary figure that indicates the banks' approximate capital needs. The EBA will publish the definitive data in November.

To reach the objective, banks are expected to limit dividend distributions and bonuses. The capital target can be met not necessarily with core tier 1 capital but also by new issues of contingent capital

(convertible bonds) subscribed by private sector investors, as long as their characteristics comply with EBA standards. First of all, the banks should have recourse to private capital; if necessary, governments would provide support; and if this source too should prove insufficient, recapitalization would be financed by an EFSF loan for euro-area countries.

At international level, the proposal for the prudential treatment of global systemically important banks has been completed (see the box below).

THE REGULATORY PROPOSALS FOR SYSTEMICALLY IMPORTANT FINANCIAL INSTITUTIONS

Two consultation documents were published in July with recommendations concerning the prudential treatment of systemically important financial institutions (SIFIs). The Financial Stability Board released a paper setting out proposals for managing crises at SIFIs and reducing their impact. The Basel Committee released a document proposing a methodology for identifying global systemically important banks (G-SIBs) and prudential safeguards designed to decrease the probability of distress and failure by increasing their loss-absorbing capacity. The indicators selected reflect the size of banks, their interconnectedness, their degree of substitutability (i.e. the presence or lack of readily available substitutes for the services they provide), their global (cross-jurisdictional) activity and their complexity. The G-SIBs identified by these parameters are then divided into four categories ("buckets") in increasing order of systemic importance and subjected to capital surcharges ranging from 1 per cent for the first category to 2.5 per cent for the fourth. A fifth "bucket", currently empty, is also envisaged with a surcharge of 3.5 per cent, to provide an incentive for banks to avoid becoming more systemically important. The judgment of the supervisory authorities plays a role in the banks' classification, but only in exceptional cases can supervisory judgment override the indicator-based measurement approach.

The additional loss absorbency requirement must be met out of common equity tier 1 capital only. However, contingent capital instruments can be used to meet any national loss absorbency requirements set above the global level at the national supervisors' discretion. The methodology was applied initially to a set of 73 banks and identified a subset of them as global systemically important. The new rules on the surchange will go into effect in January 2019 following a transition period beginning in 2016.

3.7 NON-BANK FINANCIAL INTERMEDIARIES

Specialized intermediaries

The financial tensions affect investment firms

Italian investment firms are characterized by low profitability – a third of them, accounting for 10 per cent of the sector's assets, made a loss in the first half of the year – and the capital base of some is unsatisfactory, close to the regulatory minimum. Going forward, these problems could be aggravated both by the decline in the volume of business and the associated fee income and by the migration of customers to less risky products on which margins are lower.

Credit quality for leasing and consumer credit companies has deteriorated

In the first half of 2011 the volume of new lending grew by just 1.2 per cent for leasing companies and contracted by 8.8 per cent for consumer credit companies. Loan quality showed a marked deterioration, with the stock of non-performing loans rising to 14 per cent of total loans for leasing and 15 per cent for consumer credit. However, the total amount of lending by these two sectors was very modest (€100 billion and €60 billion respectively). By contrast, the factoring sector recorded a robust increase in the flow of loans (7 per cent) and a further improvement in their quality.

Some cases of vulnerability are observed among real-estate funds

Signs of difficulty in terms of capital continued to be seen in June for a group of real-estate funds reserved to qualified investors and real-estate hedge funds that accounted for 6.2 per cent of the sector's total assets. By contrast, no signs of fragility have emerged for retail funds, which have more prudent investment policies and a moderate level of leverage.

Private equity funds have made further write-downs

The volatility of the financial markets and the weakness of the real economy continue to make it hard for private equity fund managers to carry out their strategies. Write-downs of holdings have increased further and disposals have proved to be very difficult.

ETFs have continued to grow in Italy

Exchange traded funds are gaining ground among Italian savers, who are attracted by their low commissions and flexibility. In July the assets of the ETFs listed on Borsa Italiana amounted to €21.5 billion. These products can entail risks that savers may not be fully aware of. Complex products that replicate their benchmark index not by purchasing the related securities but by using derivative instruments, which can expose the funds to counterparty risk, have recently been introduced on the Italian market. In July 2011, 71 of the 661 ETFs listed on Borsa Italiana were of this type.

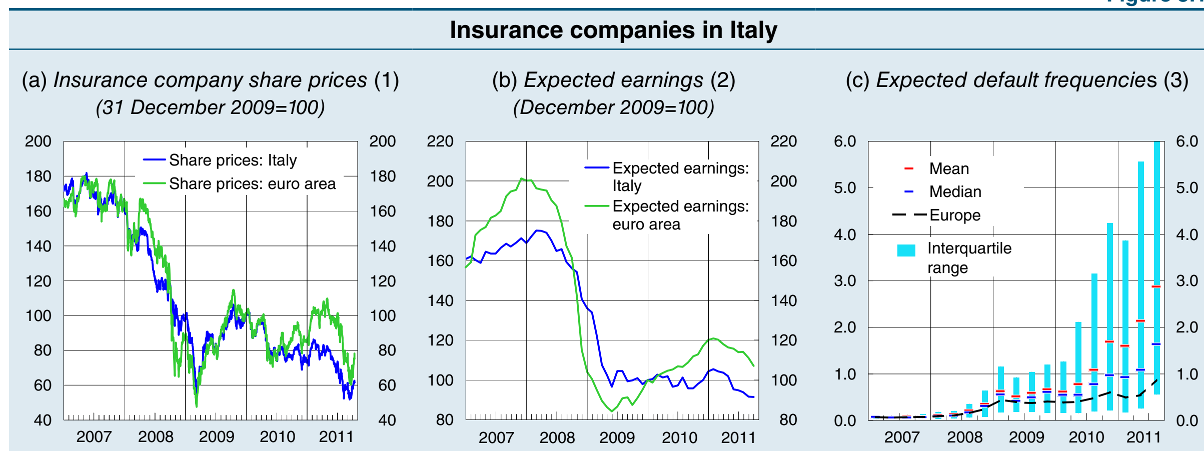
Insurance companies

The markets signal continued uncertainty for insurance companies

Market-based indicators signal a deteriorating outlook for Italian insurance companies. The sector's share index has continued to decline (Figure 3.19.a). Financial analysts' forecasts of earnings twelve months ahead turned downwards again (Figure 3.19.b). Expected default frequencies derived from share performance have worsened (Figure 3.19.c), reflecting, among other factors, the rating downgrades of some companies.

Figure 3.19

Insurance companies in Italy



Sources: Based on Thomson Reuters Datastream, IBES and Moody's KMV data.
(1) Daily data. Indices of the share prices of insurance companies. – (2) Average earnings per share expected for the 12 months following the reference date. Monthly data. For Italy, the data refer to the following companies: Assicurazioni Generali, Assicurazioni Milano, Fondiaria, Mediolanum Assicurazioni, Società Cattolica Assicurazioni, UGF Assicurazioni and Vittoria Assicurazioni; for the euro area, the data refer to the companies included in the Morgan Stanley index of the insurance sector. – (3) Quarterly averages of daily data (monthly before August 2009 for the European index), in per cent. Expected default frequencies (EDFs), based on price and volatility of the shares of the reference companies, measure the probability that the market value of assets will fall below that of liabilities within 12 months. The chart shows the median and mean values and the interquartile range for the quarterly averages of EDFs of the Italian insurance companies considered (listed above) and the median value for the companies included in the Moody's KMV index of the European insurance industry.

Profitability could be hit by the strains affecting Italian government securities ...

The impact of the sovereign debt crisis on Italian insurance companies' balance sheets is buffered by the relatively low proportion of total assets consisting of government securities of the European countries with acute problems (about 1 per cent in September 2010). Moreover, recent legislation permits the companies not to record unrealized losses on securities not held as long-term investments in their 2011 balance sheets, where they have constituted unavailable reserves. Italian insurance companies nevertheless are exposed to a series of uncertainties. To begin with, at the end of 2010 Italian government securities made up an estimated 40 per cent of the investments covering the technical reserves of the totality of insurance policies excluding unit- and index-linked products.

... low interest rates ...

In addition, the low level of interest rates on securities with high credit ratings continues to depress profitability owing to the large number of policies offering guaranteed minimum returns, which accounted for 75 per cent of the technical reserves of the life sector in 2010. This effect could be mitigated by the lower guaranteed returns on new policies.

... and a possible weakening of net premiums written

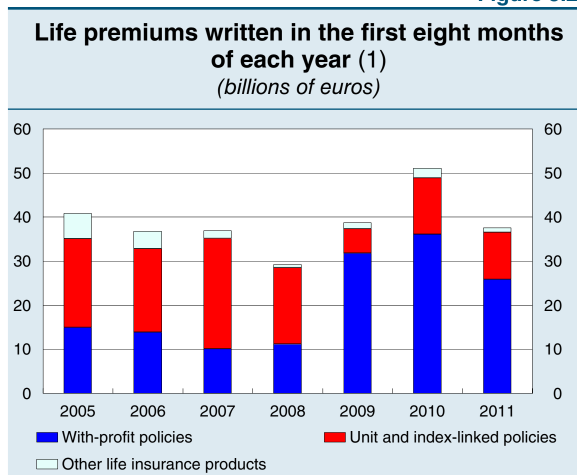
In the first eight months of the year life insurance premiums written were down from the same period of 2010, although they remained close to the levels recorded in the years before the recession (Figure 3.20). The weakness of economic conditions could lead to a decline in premiums written and an increase in requests to cash in policies before they mature, especially for products with low surrender costs. Further, sales of life policies could be crowded out both by bank products (banks might give priority to placing their own liabilities) and by Italian government securities (owing to the recent increase in their yields). In the non-life sector, by contrast, signs of a recovery in premiums written have been reflected in an improvement in the technical account results.

These common risk factors concur to determine a high degree of co-movement of the share prices of Italian insurance companies (Figure 3.21), a phenomenon also observed for the companies of the other euro-area countries.

Figure 3.20

Life premiums written in the first eight months of each year (1)

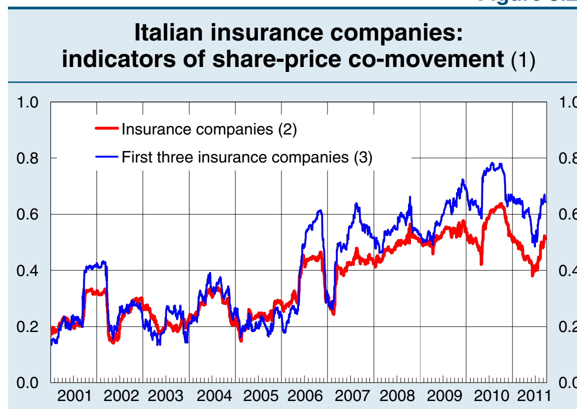
(billions of euros)



Source: ANIA.
(1) Only premiums on new policies sold by Italian insurance companies and foreign insurance companies operating in Italy under the freedom to provide services.

Figure 3.21

Italian insurance companies: indicators of share-price co-movement (1)



Source: Based on Thomson Reuters Datastream data.
(1) Daily data. Simple average of the correlations between the equity returns of pairs of insurance companies calculated on daily data and 6-month moving windows. – (2) Insurance companies included in the FTSE Italia All-Share index. – (3) First three insurance companies according to group-level written premiums: Assicurazioni Generali, Fondiaria and UGF Assicurazioni.

4 MARKETS, PAYMENT SYSTEMS AND INFRASTRUCTURES

4.1 THE LIQUIDITY MARKET

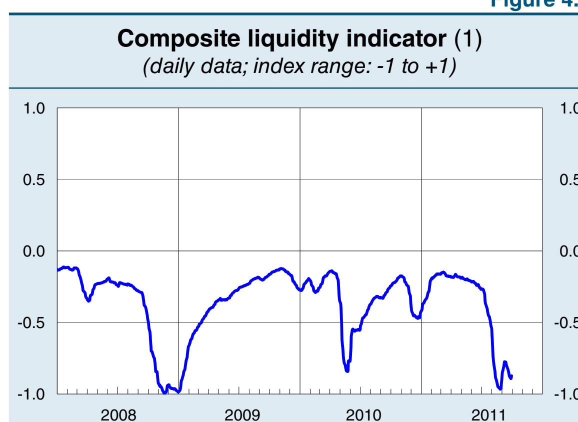
The liquidity conditions in Italy's markets have worsened sharply ...

The liquidity of Italy's financial markets worsened sharply starting in July. The composite liquidity indicator fell back towards the lows touched following the failure of Lehman Brothers (Figure 4.1), mainly as a consequence of the deterioration in the Italian government bond market. In October liquidity conditions improved slightly.

Figure 4.1

Composite liquidity indicator (1)

(daily data; index range: -1 to +1)



Sources: Based on Thomson Reuters Datastream, Bloomberg and Bank of Italy data.
(1) Positive (negative) numbers 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*, December 2010.

... and have pushed banks towards the collateralized and OTC markets ...

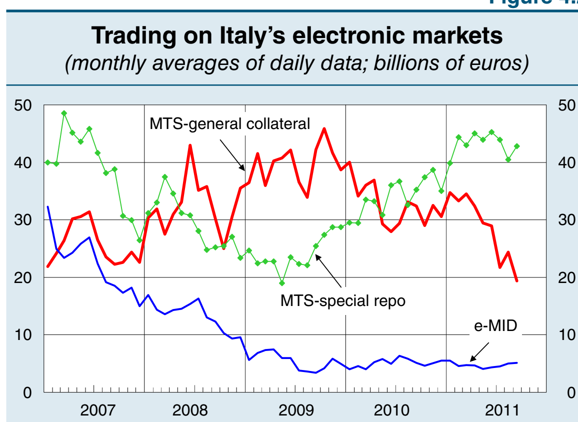
On the money market, banks traded funds principally by means of collateralized contracts, which limit the liquidity and counterparty risks, while trades of uncollateralized funds have remained at very low levels, except for OTC transactions.

Transactions backed by collateral, carried out through repos on both the general collateral and special repo segments of MTS, were the main channel of funding on the money market for Italian banks (Figure 4.2). Trades carried out with the interposition of the central counterparty made up 92 per cent of the total.

Figure 4.2

Trading on Italy's electronic markets

(monthly averages of daily data; billions of euros)



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

... where the volume of cross-border activity is still high

Non-resident banks' share of collateralized trades – stable on the special repo segment and increasing on the general collateral segment (Figure 4.3) – indicates that the leading international banks are continuing to make routine use of Italian government securities.

Uncollateralized trading has remained light

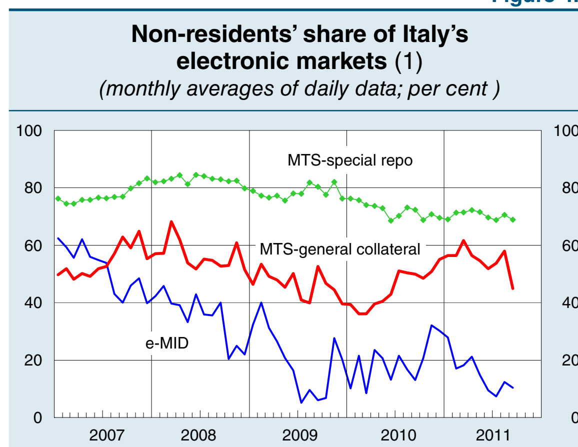
The volume of trading in uncollateralized interbank deposits on e-MID has stayed at very low levels. Activity in this segment, characterized by a high degree of transparency, has suffered from the reluctance of banks to divulge their financing needs at times of tension. Estimates based on data from the TARGET2

gross settlement system indicate that Italian banks had ample recourse instead to the OTC market, which for the largest operators is practically the sole means used to procure uncollateralized funds from abroad. As a rule the banks have bilateral OTC relations with a smaller number of counterparties than they deal with on e-MID. This necessitates careful screening and assessment of the counterparties with which to conduct this kind of activity on an ongoing basis.

Figure 4.3

Non-residents' share of Italy's electronic markets (1)

(monthly averages of daily data; per cent)



Sources: Based on e-MID SIM S.p.A. and MTS S.p.A. data.
(1) Based on remote-access trading activity.

The trends under way in the Italian liquidity markets, many of which had already emerged in the previous two years, are a consequence of the prolonged crisis, which has made intermediaries more sensitive to credit and liquidity risks. The growth in collateralized trading and increased use of the central counterparty limit the potential repercussions of defaults by borrowers. In addition, the interposition of the central counterparty makes transactions anonymous, permitting participants not to divulge their liquidity needs. Banks can also maintain low visibility by making use of the OTC markets, directly contacting the counterparties with which they have the largest credit lines.

The relative cost of funds on the Italian market has increased

The strains affecting sovereign debt have adversely affected price conditions in the Italian markets. In July the rate on the tomorrow-next maturity (the highest-turnover maturity on the general collateral market) was 15 basis points above the corresponding rate on the Eurepo market, where the collateral consists of a basket of euro-area government securities (in the early months of the year it had been 6 basis points lower). In the unsecured market, the difference between the overnight rates traded on e-MID by Italian banks and Eonia rose to an average of 7.7 basis points, compared with negative values in the first part of the year. The strains have persisted, waxing and waning, in the subsequent months.

4.2 ITALIAN BANKS' USE OF EUROSYSTEM REFINANCING

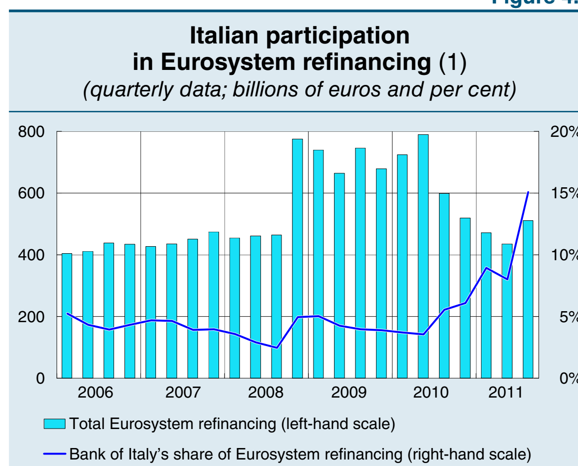
Italy's banks have made greater use of the Eurosystem ...

Recourse to Eurosystem credit by banks operating in Italy increased substantially from July onwards. In September the financing to the counterparties of the Bank of Italy amounted on average to €91 billion (compared with about €44 billion in January), with a 15.1 per cent share of the total refinancing disbursed by the Eurosystem in the third quarter (Figure 4.4) and a peak of 18.7 per cent in October. The increase has been sharp for the largest banks: the five top groups' share of the total refinancing disbursed to Italian banks reached 61 per cent in September, compared with 33 per cent in January.

Figure 4.4

Italian participation in Eurosystem refinancing (1)

(quarterly data; billions of euros and per cent)

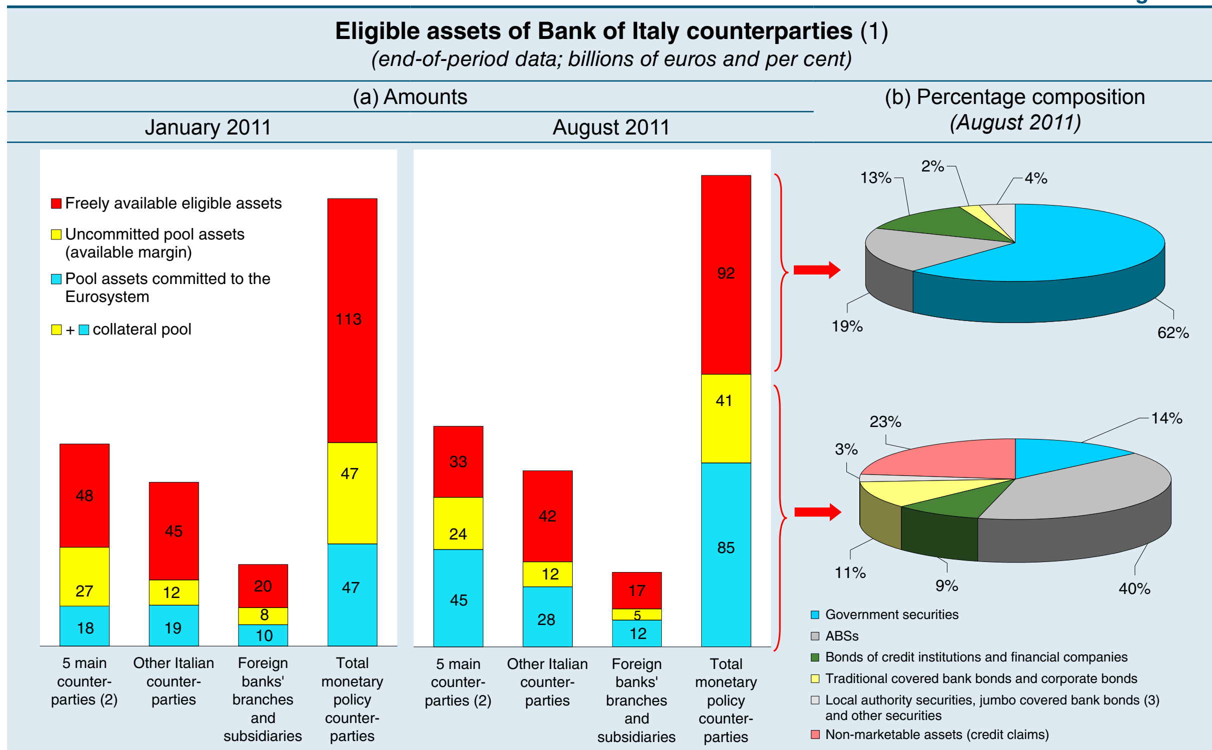


Sources: Based on ECB and Bank of Italy data.
(1) Refinancing disbursed by the Bank of Italy to banks operating within Italy, including foreign banks' branches and subsidiaries.

Figure 4.5

Eligible assets of Bank of Italy counterparties (1)

(end-of-period data; billions of euros and per cent)



Sources: Based on supervisory statistical reports and ECB data.
(1) The data refer to banks that were Bank of Italy monetary policy counterparties in August 2011 (111 banks, of which 91 authorized to participate in monetary policy tenders, including foreign banks' branches and subsidiaries and 20 with access only to the standing facilities). Accordingly, the approximately 650 Italian banks that were not Bank of Italy monetary policy counterparties are excluded. At the end of August the value of the eligible assets freely available to the latter was estimated, net of haircuts, at €46 billion. – (2) Main monetary policy counterparties by volume of assets of the group they belong to. – (3) Jumbo bonds are those with an issue volume of not less than €1 billion and at least three market makers providing quotations.

... and increased the pool of eligible collateral at the Bank of Italy

With their greater needs for refinancing, banks have increased the collateral pool at the Bank of Italy. In August it amounted to €126 billion net of haircuts (compared with €94 billion in January; Figure 4.5.a), of which €85 billion actually committed and €41 billion freely available. The latter component – the available margin – is held by the banks for precautionary reasons and in order to obtain intraday liquidity for use in the TARGET2 settlement system. The need to make greater use of central bank refinancing resulted in greater use of the pool; consequently the available margin fell to 33 per cent, from 50 per cent in January.

The total value of freely available eligible assets remains considerable

Apart from the collateral pool, banks operating in Italy held freely available eligible assets valued at €92 billion, net of haircuts, at the end of August (this figure does not include other non-marketable assets, whose amount is not easy to estimate). Accordingly, the Italian banking system's capacity for further refinancing with the central bank at that date can be estimated at €133 billion, of which €57 billion referred to the five largest banks. For a fifth of the counterparties the amount of additional eligible securities was less than half the refinancing already obtained.

The composition of the collateral pool has also changed

In August the collateral pool consisted mainly of ABSs (40 per cent of the total) and credit claims (23 per cent; Figure 4.5.b). The share of ABSs was down significantly from the end of 2010, partly as a result of the more restrictive criteria for accepting collateral that came into force this year (see the Bank's Report to Parliament and to the Government on 2010, Chapter 1 "Functions within the Eurosystem"), while that of government securities increased. Similar changes in the composition of the collateral pool were recorded in the other euro-area countries.

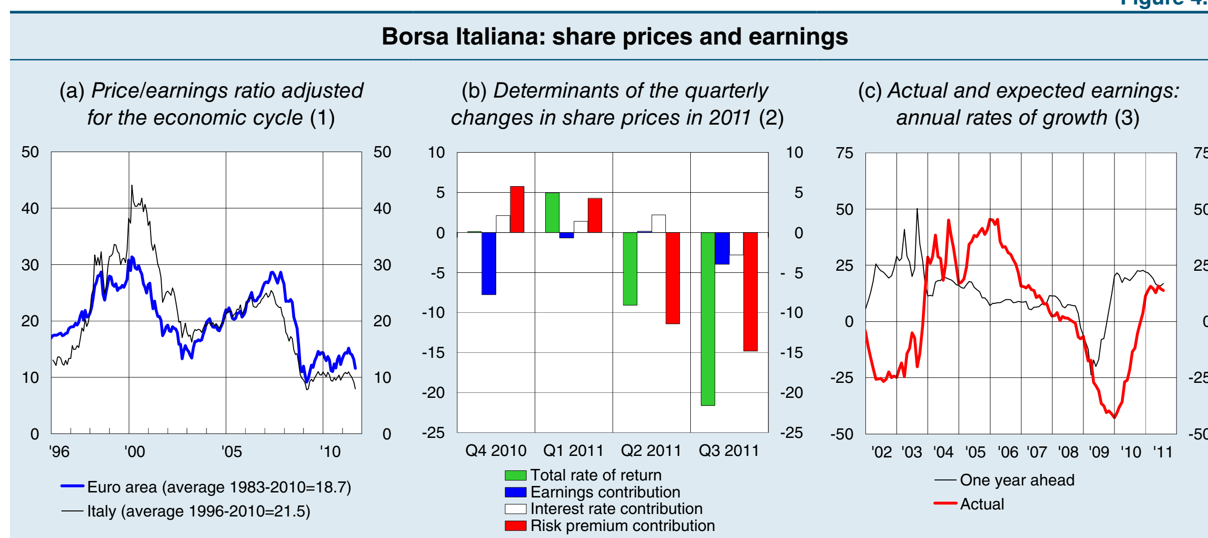
4.3 THE EQUITY MARKET

Share prices are very low in relation to profits ...

On Borsa Italiana the cyclically-adjusted price/earnings ratio is at a twenty-year low (Figure 4.6.a). The low prices reflect the new, broad increase in the risk premium since last May (Figure 4.6.b); on average, expectations of a growth in profits are still fairly high (Figure 4.6.c).

Figure 4.6

Borsa Italiana: share prices and earnings



Sources: Based on Bloomberg and Thomson Reuters Datastream data.
(1) Monthly data. Ratio of the share price index to the 10-year moving average of earnings per share, both adjusted for inflation. – (2) Quarterly data; percentage rates of return in the quarter and their determinants. The quarterly rate of return is broken down into the contributions of the three fundamental determinants (expected earnings, long-term interest rates and the risk premium) assuming that the risk premium is equal to the difference between the nominal rate of return on shares (equal to the ratio between earnings per share forecast by the financial analysts of the IBES panel for the following 12 months and the share price index) and the yield on 10-year government bonds, set equal to the yield on the German benchmark security.– (3) Monthly data; per cent.

... but could be affected further by cyclical weakness

For the future, share prices could be affected by further downward revisions of earnings expectations as a result of the lowering of forecasts of economic growth and the increased cost of funding. Although the profit forecasts for Italian banks have already been lowered considerably, expectations for other listed companies have barely changed; the percentage of companies for which the analysts have trimmed their forecasts is still low compared with similar cyclical phases in the past. Risk premiums are already high but could rise still further in the presence of new strains on sovereign debt. By contrast, an improvement in the prospects for resolving the crisis, with positive repercussions on share prices, could lower risk premiums.

4.4 THE GOVERNMENT SECURITIES MARKET

The placement of government securities continues to be smooth

The placement of Italian government securities has proceeded regularly. The cover ratio has consistently been well above one, with only some occasional, slight dips (Figure 4.7). The issue yields have generally been aligned with those on the secondary market in the last few minutes before the auction (Figure 4.8).

Rates are rising, but the impact on interest expenditure has been limited

The worsening strains in sovereign debt markets have significantly affected the risk premium demanded by investors for Italian government securities. The most common gauge of that premium, the spread between 10-year BTPs and Bunds, has gone above 400 basis points on several occasions. However, this indicator tends to overestimate the impact of the strains on issue rates, because it partly

reflects the exceptionally low rates on German government securities produced by investors' preference for low-risk assets. Italian issue yields in the third quarter averaged about 90 basis points higher than in the second for maturities of two to five years and about 60 basis points for those beyond five years (Figure 4.9), while the average BTP-Bund spread for the 10-year maturity widened by 150 basis points. Moreover, the impact of higher issue yields on the cost of the public debt has been attenuated by the reduction in net issuance (to €44 billion in the first nine months, compared with €83 billion and €122 billion in the corresponding periods of 2010 and 2009) and by Italian government securities' long average maturity (more than seven years). Simulations indicate that the debt/GDP ratio would hold constant or decline even with issue yields considerably higher than those of the last few months (see the box "The dynamic of Italy's public debt").

Very substantial redemptions fall due in the next few months

In the coming months issue yields could be affected by the heavy concentration of issues maturing between February and April (Figure 4.10). The volume to roll over during that period is substantial, even though the Ministry for the Economy and Finance has reduced it by swaps on the MTS secondary market and buy-backs using the sinking fund for government securities.

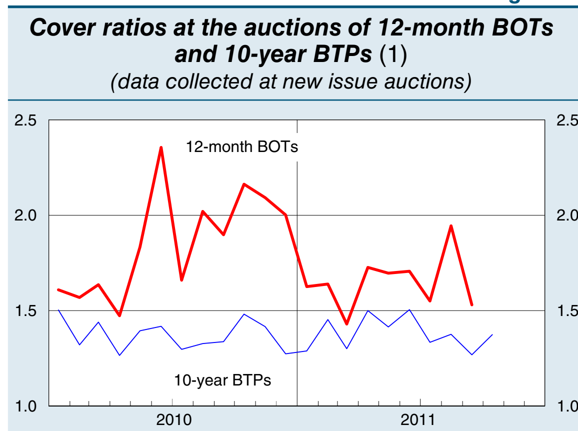
Italian government securities continue to be placed in the portfolios of a large and diversified group of investors, both Italian and foreign (see the box "The holders of the Italian public debt and government securities").

The secondary market has been affected by the tensions

The liquidity of the secondary market in government securities diminished significantly during the periods of tension. Last summer the bid-ask spread quoted by primary dealers on the MTS spot segment exceeded the highs recorded in May 2010, when the Greek crisis deepened (Figure 4.11). The dispersion of the spreads quoted by different dealers also increased. Both the volumes proposed on-screen and those actually traded fell to the lows registered at the end of 2008.

Figure 4.7

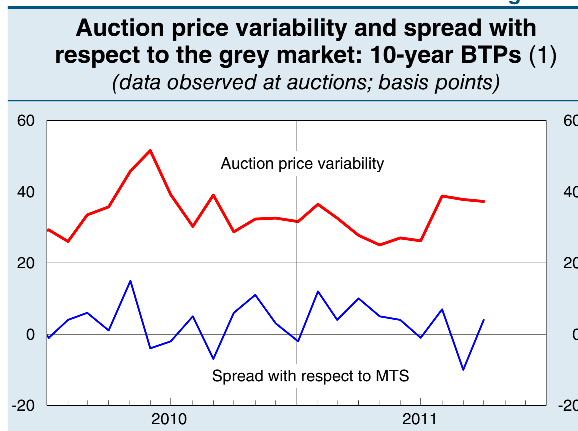
Cover ratios at the auctions of 12-month BOTs and 10-year BTPs (1)
(data collected at new issue auctions)



(1) Ratio of the quantity demanded to the quantity offered at each auction.

Figure 4.8

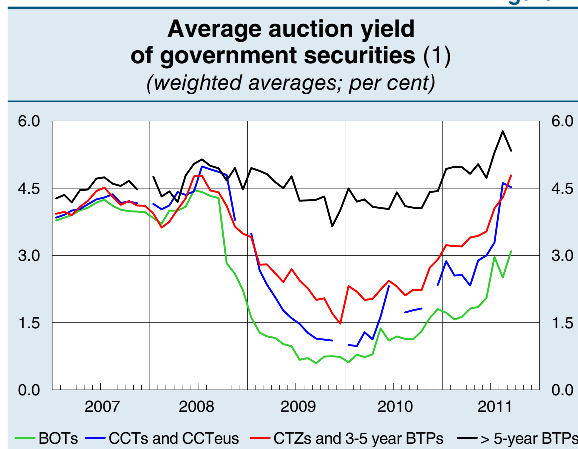
Auction price variability and spread with respect to the grey market: 10-year BTPs (1)
(data observed at auctions; basis points)



(1) Standard deviation of the prices bid at individual auctions and the difference between the allotment price and the price of the same security observed on MTS five minutes before the deadline for presenting bids.

Figure 4.9

Average auction yield of government securities (1)
(weighted averages; per cent)



(1) The breaks indicate the absence of one or more auctions or the postponement of settlement to the following month.

Figure 4.10

Government securities maturing in 2012
(billions of euros)

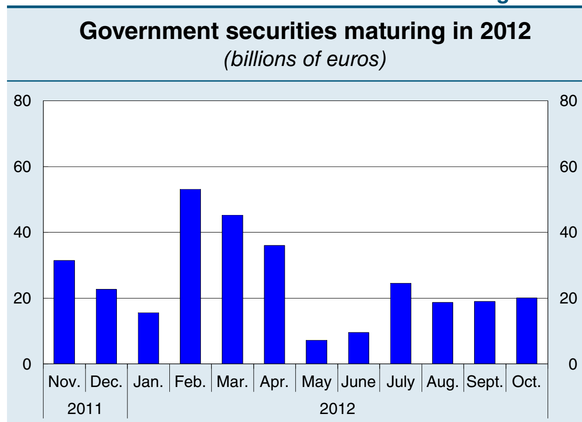
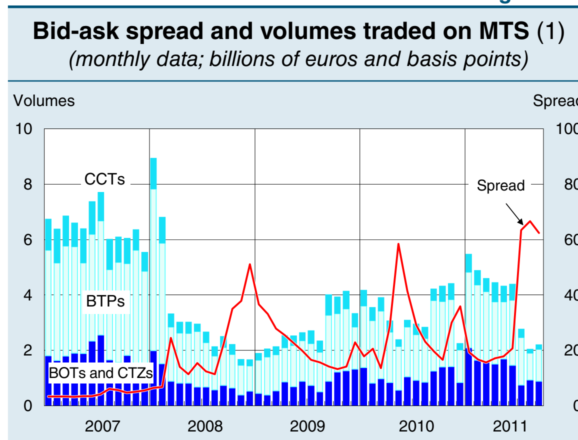


Figure 4.11

Bid-ask spread and volumes traded 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 average of the bid-ask spreads observed during the trading day for all the BTPs listed on MTS.

Since July the decline in trading on MTS has been accompanied by increased turnover in Italian government securities on the BondVision market, where banks trade directly with institutional investors through auctions, without having to quote firm offers (which at times of tension could make them vulnerable to sudden price changes). Liquidity conditions improved slightly in October. The bid-ask spread on MTS narrowed to just over 50 basis points, while the volumes proposed for trading increased.

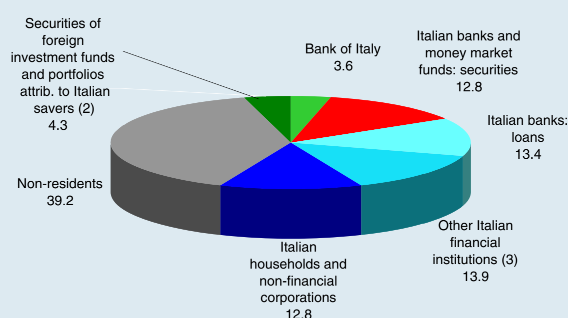
THE HOLDERS OF THE ITALIAN PUBLIC DEBT AND GOVERNMENT SECURITIES

In June 2011 Italy's public debt amounted to €1,900 billion. The portion held by non-residents – 39.2 per cent (Figure A) – is relatively low by international standards (see the box "The sustainability of the public finances"). An estimated 4.3 per cent is held by individually managed portfolios and investment funds administered by foreign intermediaries but attributable to Italian savers.[1]

Government securities make up about four fifths of the total public debt. Households rank first among resident holders, with a 14 per cent share, followed by banks, insurance companies and investment funds (Figure B, panel b). Foreign investors hold 46.2 per cent of the total, while 5.2 per cent is held by foreign portfolios and investment funds attributable to Italian savers.

Figure A

Holders of Italy's public debt (1)
(June 2011; percentages)

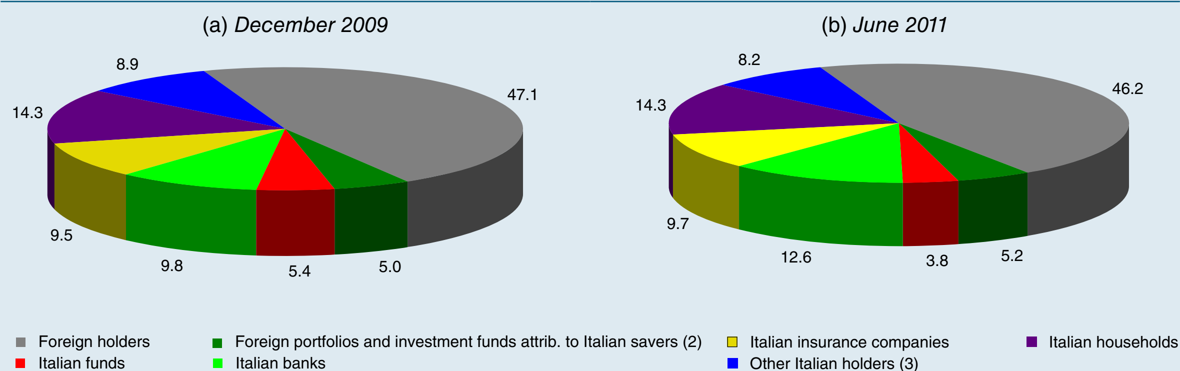


(1) Shares calculated on amounts at face value and net of the debt held by the Italian general government sector. For each type of holder, the label also shows the percentage in figures. – (2) Italian government securities held by individually managed portfolios and investment funds administered by foreign intermediaries but attributable to Italian savers. Partially estimated data. – (3) Insurance companies, non-money-market investment funds, pension funds and other intermediaries.

[1] The overall share held by non-residents and by individually managed portfolios and investment funds administered by foreign intermediaries but attributable to Italian savers is slightly different from the figure for non-residents shown in the box "The sustainbility of the public finances", which is partially estimated by the IMF.

Figure B

Holders of Italian government securities (1)
(end-of-quarter data; percentages)



(1) Shares calculated on data at market prices and net of the securities held by the Italian general government sector. Republic of Italy loans are included. – (2) Individually managed portfolios and investment funds administered by foreign intermediaries but attributable to Italian investors. Partially estimated data. – (3) Includes the Bank of Italy, non-financial corporations, pension funds and other investors.

The percentage composition of holders of Italian government securities has not changed significantly with the advent of the sovereign debt crisis in the euro area, apart from the increase in Italian banks' share, which indicates that Italian banks have helped support the demand for government securities.

The stability of foreign investors' share conceals different trends among the categories of holder. European Banking Authority data for 2010 show that the banks of the other European countries reduced their overall net exposure by €57 billion (of which €40 billion by German banks alone). BIS data (not completely homogeneous with the EBA data) indicate that this exposure diminished further in the first half of 2011. Since the total share held by foreign investors is stable, the reduction in European banks' holdings implies that other non-resident investors purchased substantial volumes of Italian government securities, albeit at rising interest rates.

The sales of Italian government securities recorded at times of acute strains in the markets may therefore have at least partly reflected disposals made by some European intermediaries in order to procure liquidity.

4.5 THE MARKET IN CREDIT DEFAULT SWAPS

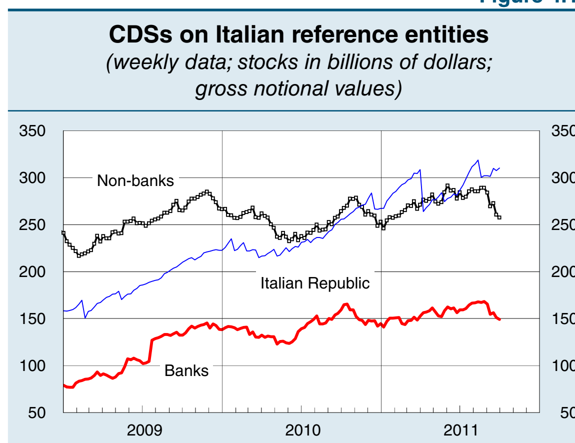
The large size and rapid volume growth of the international CDS market (vis-à-vis both public and private issuers) constitutes a significant source of uncertainty for global financial markets. Italian banks' exposure on the CDS market is limited, far less than their share of total bank assets of the leading countries.

The growth of CDSs on Italian residents' issues has continued

At the end of September the gross notional value of CDSs on securities issued by Italian residents came to more than $710 billion. Those on Italian government securities amounted to $310 billion (Figure 4.12). About three quarters of the sales of

Figure 4.12

CDSs on Italian reference entities
(weekly data; stocks in billions of dollars; gross notional values)

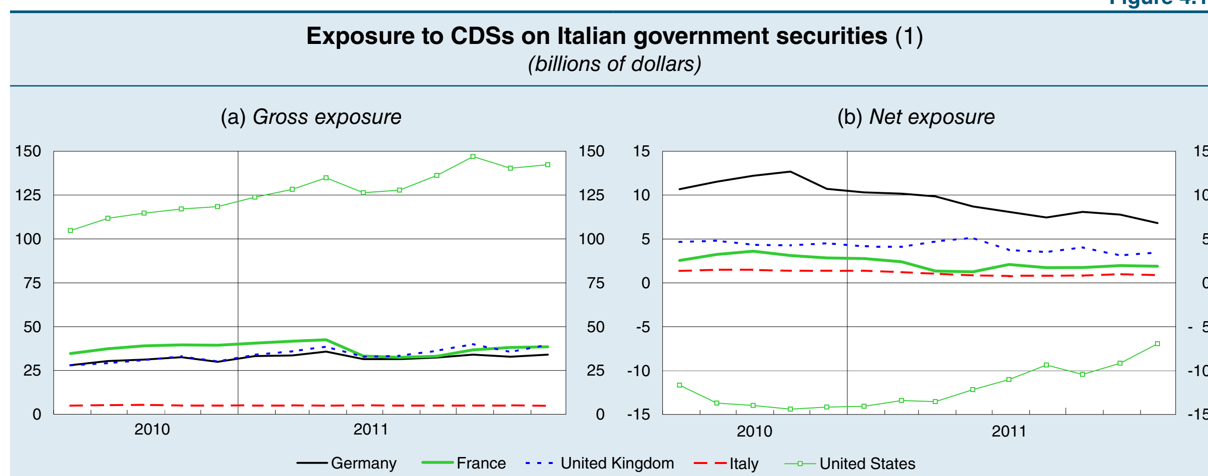


Source: Based on Depository Trust & Clearing Corporation data.

protection were made by non-euro-area residents, mostly American (Figure 4.13.a); ten sellers accounted for about 80 per cent of the total. The data on net exposures (CDS sales less purchases) show that US intermediaries were net purchasers of protection, while German and British institutions were the main net sellers (Figure 4.13.b). At the end of September the CDSs on Italian government securities came to 14 per cent of deliverable securities, lower than the European average of 16 per cent. This ratio correlates positively with investors' perception of issuer credit risk (see *Financial Stability Report*, December 2010).

Figure 4.13

Exposure to CDSs on Italian government securities (1)
(billions of dollars)



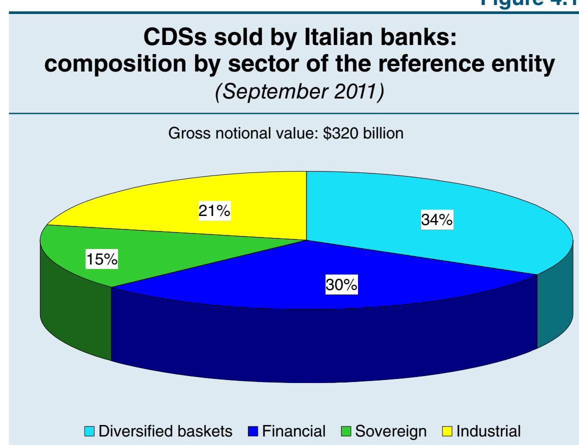
Source: Based on Depository Trust & Clearing Corporation data.
(1) CDS positions of financial companies of the countries specified. In panel (b) positive (negative) values indicate net sales (purchases) of protection against the risk of default. The net exposure of each country is calculated as the algebraic sum of the net exposures of the ultimate parents to Italian government securities. Accordingly, the net exposure includes the CDS trades carried out within each country.

Italian banks' CDS exposure is relatively low ...

Italian banks have sold protection on more than a thousand reference entities (the issuers of the underlying securities), for a net notional value of $12 billion at the end of September. Of the gross notional value, 80 per cent refers to CDSs on European reference entities. For the most part (85 per cent) these CDSs refer to financial and industrial corporations, while sovereign entities account for just 15 per cent (Figure 4.14). Italian intermediaries' share of the global CDS market (1.2 per cent) remains far smaller than their share of the total international banking assets (of the order of 5 per cent with reference to the leading countries).

Figure 4.14

CDSs sold by Italian banks: composition by sector of the reference entity
(September 2011)



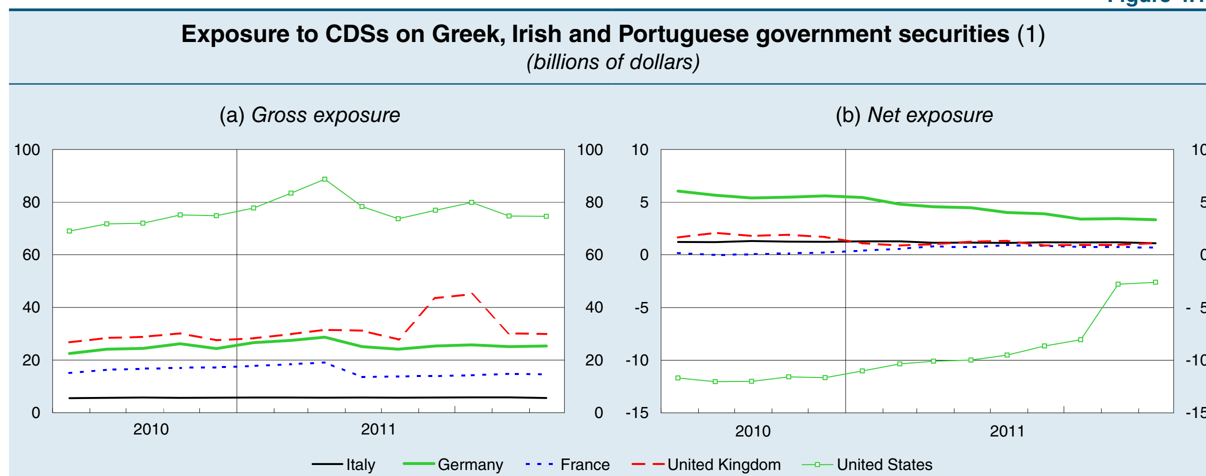
Source: Based on Depository Trust & Clearing Corporation data.
(1) The gross notional value of the CDS contracts sold by Italian banks reported in the chart is not comparable with the fair value of CDSs discussed in section 3.4.

... also vis-à-vis Greece, Ireland and Portugal

The gross notional exposure of Italian financial institutions to CDSs on the government securities of Greece, Ireland and Portugal is $5.6 billion, a relatively small amount by international standards (Figure 4.15.a). In terms of net exposure, US intermediaries as a group are net purchasers of protection and Europeans net sellers, albeit for modest amounts (Figure 4.15.b). The net exposure of Italian financial institutions is equal to $1.1 billion for the three countries (plus another $0.3 billion vis-à-vis private corporations).

Figure 4.15

Exposure to CDSs on Greek, Irish and Portuguese government securities (1)
(billions of dollars)



Source: Based on Depository Trust & Clearing Corporation data.
(1) CDS positions of financial companies of the countries specified. In panel (b) positive (negative) values indicate net sales (purchases) of protection against the risk of default. The net exposure of each country is calculated as the algebraic sum of the net exposures of the ultimate parents to Greek, Irish and Portuguese government securities. Accordingly, the net exposure includes the CDS trades carried out within each country.

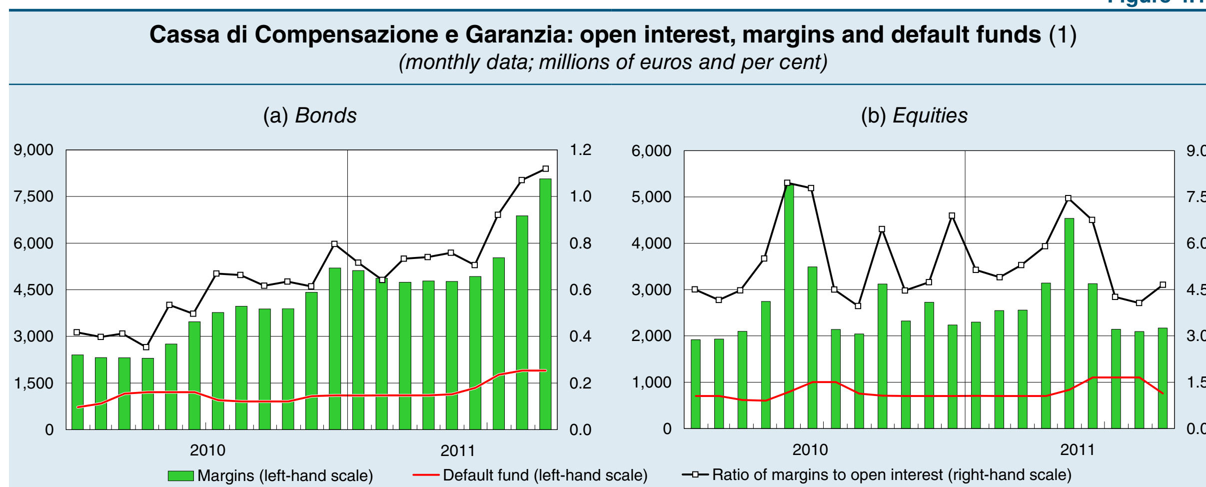
4.6 MARKET AND SETTLEMENT INFRASTRUCTURES

The CC&G has increased margins for the bond segment

In the presence of high market volatility, over the first nine months of the year the central clearing counterparty (Cassa di compensazione e garanzia, CC&G) made several revisions to its parameters for calculating margin requirements. As a result, total initial margins increased by 39 per cent over the corresponding period of 2010, owing above all to the increment for the government securities transactions component (Figure 4.16). Between May and July the default fund for bonds trading was also increased and is now nearly twice as large as at the start of the year.

Figure 4.16

Cassa di Compensazione e Garanzia: open interest, margins and default funds (1)
(monthly data; millions of euros and per cent)



Source: Cassa di Compensazione e Garanzia S.p.A. data.
(1) Initial margins are cash and securities deposited by participants in proportion to their volume of business to cover any losses incurred under normal market conditions. Default funds, instead, are resources paid in on a mutual basis to be used if the margins of an insolvent participant are insufficient; they are determined so as to cover the possible insolvency of the three intermediaries with the largest negative exposures and are normally assessed on the basis of stress tests carried out twice a month. When establishing the collateral that participants are required to provide, Cassa di Compensazione e Garanzia adopts internationally accepted standards. For more details, see the box "Cassa di Compensazione e Garanzia S.p.A." in *Financial Stability Report*, December 2010.

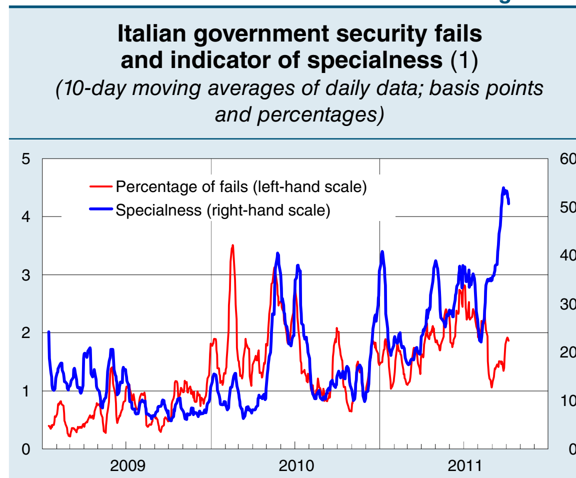
Fails started to increase again ...

In the second quarter the percentage of the trades entered in the securities settlement system not settled on the intended settlement date (fails) began to increase, especially in the government securities component (Figure 4.17). The rise was almost entirely accounted for by foreign participants and in any event has not been large enough to compromise the efficient functioning of the settlement system. In part, the fails appear to be ascribable to an economic incentive, as is confirmed by the high positive correlation, until July, between the percentage of unsettled transactions and specialness (the difference between the rates on general collateral and on special repos, which is a proxy for the opportunity cost of procuring specific types of securities).

Figure 4.17

Italian government security fails and indicator of specialness (1)

(10-day moving averages of daily data; basis points and percentages)



Sources: Based on Monte Titoli and Bank of Italy data.
(1) Fails recorded in the Express II settlement system.

... but new measures should discourage them

At the request of the Bank of Italy and Consob, during the summer Monte Titoli began to revise the system of penalties for fails (see the box below). The announcement of the initial measures on 5 August coincided with a significant reduction in fails, but they began to increase again in September in concomitance with renewed strains on the special repo market; even so, they remained at lower levels than at the start of the summer. It is too early to judge the effectiveness of the first countermeasures, which only went into effect in September. Monte Titoli may review or supplement them as part of a broader revision of the system of penalties.

THE MEASURES AGAINST FAILS AND SHORT SELLING

A new system of penalties has been introduced in the effort to reduce the share of fails not due to technical problems. It replaces the old mechanism that levied a fixed penalty of €200 on Express II participants when unsettled trades in the security settlement system as a whole reached a set threshold. The new system applies penalties to participants in proportion to the volume of daily fails security by security, valued at market prices. The penalty rates are 0.001 per cent for corporate bonds and government securities and 0.02 per cent for all other securities (shares, warrants and ETFs). To avoid excessive administrative costs there are thresholds below which penalties are not levied (€5 million for bonds and €250,000 for other securities). The proceeds of the penalties are redistributed, pro rated by individual security, to the participants to whom the delivery of the relevant securities was not made during the reference month.

In August, in order to counter the slump in share prices in July and August, Consob prohibited traders from taking new net short positions on the shares of financial companies or increasing existing ones. The measure, which followed similar ones taken by the authorities in other euro-area countries, was initially to be in force for 15 days. Subsequently, under the coordination of the European Securities and Markets Authority, it was extended until 11 November. The ban exempts market makers, for whom the possibility of short sales is considered to be normal.

Efficiency in the use of intraday liquidity has increased

The TARGET2 payment system has maintained its high reliability in 2011, ensuring timely closure on every business day and guaranteeing continuous functioning. Even on 25 July, when the system suffered a three-hour interruption at the start of the day, the security mechanisms in place made it possible to settle

all transactions by the end of the day. The volume of transactions remained normal, indicating that banks did not have to seek alternative channels.

The use of intraday liquidity by Italian banks within TARGET2 has been reduced from over €7 billion a day in 2010 to €5.7 billion this year, equal to 10 per cent of the overall intraday credit line. This has had no effect on settlement times: two thirds of transactions, by value, have been settled by 13:00 (see the box below).

INTRADAY LIQUIDITY RISK IN TARGET2-BANCA D'ITALIA

The management of intraday liquidity is particularly important in real-time gross settlement systems, since settlement delays by banks can have potentially systemic effects on counterparties. Accordingly, intraday liquidity risk is continually assessed on the basis of several indicators.

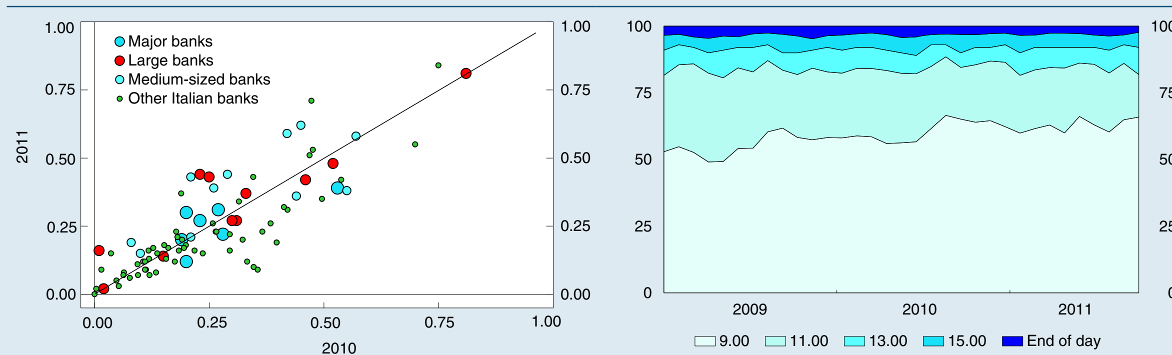
A first indicator, the largest cumulative net outflow (LCNO), consists in the maximum difference between the value of cumulative payments made and those received in the course of the day. This measures the liquidity an intermediary needs in order to make its payments in due time.[1] Between January 2010 and September 2011, in TARGET2-Banca d'Italia 90 per cent of the Italian banks' LCNOs were below €300 million and only 4 per cent exceeded €1 billion. In 2011 intraday net debtor exposures have been equal on average to 30 per cent of the liquidity held by the banks at the start of the day (Figure A); the amounts have exceeded 50 per cent in just a few cases.

Figure A

Intraday liquidity risk of Italian banks (1)
(average annual data; percentages)

Figure B

Intraday payment commitments and liquidity of Italian banks
(percentages of banks able to settle)



(1) Ratio of the largest cumulative net outflow (LCNO) to the initial liquidity held on management accounts (central bank money and available margin on credit lines).

A second indicator is the percentage of banks that at a given time of the day would be able to settle all their remaining payments owed even if their subsequent incoming payments were cancelled. This assesses the ability of the banks to meet their pending payments at a given time using only the liquid funds on their own settlement account. The performance of this indicator, calculated at five different times of the day, shows that the proportion of Italian participants in possession of sufficient liquidity to settle all remaining payments owed is already high at 9 a.m. (about 60 per cent), and in recent

[1] The observed LCNOs overestimate the need for liquidity, since banks can spread out their entry of some payments during the day without significant operational and reputational consequences. In addition, the liquidity held on the settlement accounts represents the lower bound of the stock actually available, since banks can procure liquidity outside of the system (for example, by providing uncommitted eligible assets to the Eurosystem or opening credit lines with other banks).

months this share has been rising (Figure B); this set practically always includes the major Italian banking groups. By 11 a.m. over 80 per cent of participants have the liquidity to settle all their remaining payments.

Taken together, these gauges indicate an extremely limited intraday liquidity risk. This reflects both the increasing use of collateralized funding transactions in the money market, which are normally settled early in the day, and the transition to pooling,[2] which has entailed an increase in the intraday credit lines with the central bank.

[2] Pooling permits intermediaries to hold the collateral whose value indistinctly guarantees all credit operations with the Eurosystem on a single deposit account at the central bank.