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**The sovereign debt crisis: the impact on the  
intermediation model of Italian banks**

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# **The sovereign debt crisis: the impact on the intermediation model of Italian banks.**

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## **Preliminary version**

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## **ABSTRACT**

The aim of the contribute is to analyze the impact of the financial crisis, in particular since the start of the sovereign debt phase, on Italian banks and their intermediation model. Italian banks' specific business model explains why they suffered less than those of other countries during the first phase of the crisis, requiring one of the lowest levels of public facilities in the EC as compared to GDP. Most of these same characteristics have changed from positive to negative factors since the sovereign debt crisis, which hit Italy hard, affecting first banks' liquidity and secondly the cost and volumes of funding and loans. Italian banks are now facing the effects of the double-dip recession, which has significantly weakened businesses and households, their key customer segments, and their borrowing and saving capability, with an increasing rate of non-performing loans. This situation is impairing the sustainability of the “traditional” intermediation model and means that banks must introduce strategies for significantly modifying the banking business model they adopt.

JEL classification: G01, G15, G18, G21, G28, L50

Keywords: Italian banks, sovereign debt crisis, economic recession, intermediation model, credit crunch



## **1. Introduction**

The aim of the contribute is to analyse the impact of the financial crisis, in particular since the start of the sovereign debt phase, on Italian banks and their intermediation model.

The Italian banking and financial system showed more resilience than other national systems to the first wave of the global financial crisis, the so called subprime phase (2007-2008), but the impact was much more severe in the second, sovereign debt and redenomination risk phase (2010-2012), and the system continues to show major signs of difficulty in the current phase of deep economic recession.

The first part of the contribute describes the two main phases of the financial crisis and the general impact on the Italian banking system, with its very low level of recourse to public facilities compared to other systems in the European Union. The focus is on the deterioration of the situation during the sovereign debt crisis, and thereafter in the present severe recession, which has involved large-scale use of the Long Term Refinancing Operation (LTRO) facilities, one of the set of non-standard measures introduced by the European Central Bank (ECB) as lender of last resort for Euro-area banks.

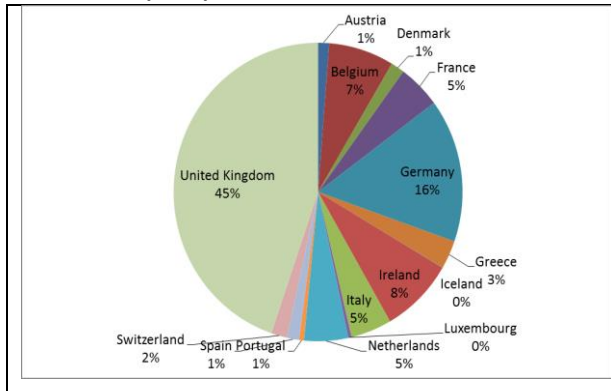
In the second part we provide an in-depth analysis of the specific financial situation of Italian banks and the different ways in which they have been affected by the crisis, with a focus on the sovereign debt phase and the present period of deep recession. The analysis covers crucial aspects related to the effects on the financial and capital structure of the Italian banking system, illustrated by comparisons with the other Euro-area countries, and lending and funding operations, and impacts on their financial equilibrium and profitability.

## **2. Italian Banks and the crisis**

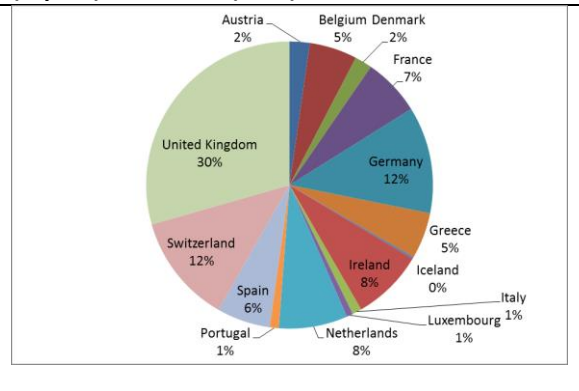
The various phases of the crisis have varied in their impact on Italian banks, with a gradual deterioration of the situation over time. In fact, the Italian banking and financial system showed more resilience than other national systems to the first wave of the global financial crisis, the so called subprime phase (2007-2008) (FSB 2011), but the impact was much more severe in the second, sovereign debt and redenomination risk phase (2010-2012) (Cosma, Gualandri 2012). To add to their difficulties, Italian banks are now facing the severe consequences of the recession which has hit the Italian economy hard from 2012 onwards, with increasing amounts of non-performing loans (NPL) in their balance sheets and negative outlooks arising from the economic situation.

The general higher resilience of the Italian banking system is reflected by the relatively low amount of public facilities granted in the period 2007-June 2012, with the use of public funds mainly concentrated in the first phase of the crisis.

**Figure 1.1 EU - Total public facilities for banks  
2007-2012 (June)**



**Figure 1.2 EU - Public facilities for banks  
(capital) 2007-2012 (June)**



Source: Processing of Mediobanca R&S 2012

Figure 1.1 shows that Italian banks' use of public facilities was just 5 per cent of the total granted within European countries. Moreover, the proportion is 1 per cent if only public facilities in the form of capital injections are considered (Figure 1.2). The difference between the two figures mainly derives from the state guaranties on bank bonds eligible for Long Term Refinancing Operations with the European Central Bank (December 2011, February 2012).

### 2.1 The subprime phase (2007-2009)

Until the Lehman Brothers crash in September 2008, Italian banks suffered less from the first phase of the crisis as they held lower-risk portfolios and above all fewer toxic securities, and focused strongly on the traditional banking business. The stock market value of Italy's biggest banking groups fell considerably, but less than that of the principal foreign banks; overall profits were lower but the banks were not losing money; and the falloff in earnings due to write-downs of securities, trading losses and reductions in commissions was relatively small compared to the serious losses suffered by the banks in other EU member states. Last but not least, in general capital had remained comfortably above the regulatory minimum levels (Cosma, Gualandri 2012).

There are two main reasons for this relative immunity. The first is the prevailing business model of Italian bank: they are mainly traditional, relationship-oriented institutions, relying heavily on lending activities and with a stable retail funding base. In the first decade of this century, Italian banks had not embraced financial innovation at the same speed or in the same depth as those of other systems. The second reason is the national regulatory and supervisory framework, centred on the Bank of Italy: the authorities' approach has traditionally been not "light touch" but rather prudent and thorough, aiming to prevent aggressive practice in mortgage lending and discourage banks from participating in complex securitisation activities. Implementing the principle of national discretion allows under EU regulations, the methods for

the calculation of Italian groups' capital ratios set by the Bank of Italy – within the Capital Adequacy Accord (Basel 1 at that time) - adopted more prudential criteria on deduction and lower-quality components than those of other states.

After the Lehman Brothers crash, Italian banks were hard hit by the general loss of faith in banking systems and the consequent lack of liquidity, due to greater difficulties in acquiring of both retail and, above all, wholesale funding, arising from the freezing of the interbank deposit market. In spite of this, all the main banks continued to return a profit over this period, and only four of them (and not the largest) made use of the capital injection facilities provided in 2009 by the government, the so-called Tremonti Bonds (Table 1). The largest banks liquidity ratios and capital adequacy improved during 2009 thanks to both capital increases and the sale of non-strategic assets, encouraged by the Bank of Italy.

**Table 1 - Tremonti Bonds - Public facilities**

<b>Banks</b>	<b>Date</b>	<b>Amount billion €</b>	<b>Situation (July 2013)</b>
Banco Popolare	19/6/2009	1.45	Reimbursed 14 March 2011
Banca Popolare di Milano	21/9/2009	0.500	Reimbursed 30 June 2013
Monte dei Paschi	14/12/2009	1.9	Reimbursement originally scheduled in four years. Replaced by Monti Bond in June 2013, at present under scrutiny by the EC (State Aid Procedures).
Credito Valtellinese	30/12/2009	0.200	Reimbursed 30 June 2013

Source: Bank of Italy, *Il sole 24 ore*, various editions

## **2.2 The sovereign debt and redenomination phase (2010-12)**

The onset of the sovereign debt crisis cruelly spotlighted flaws in the Italian banking system which were already known to be present, mainly linked to the prevailing traditional business model, based on maturity transformation and the prevalence of variable interest loans. The very characteristic which had been central to the Italian banking system's greater resilience in the first phase of the crisis now became a disadvantage (Cosma, Gualandri 2012). Several factors contributed to the deterioration of profitability: first and foremost, the increase in non-performing loans, due to companies' worsening financial situations. Moreover, Italian banks' low level of proprietary trading on the securities market was not sufficient to support earnings as in the case of other European and US banks, which used the large amounts of liquidity injected by Central Banks through their non-standard monetary policy operations for investments of this kind. Last but not least, Italian banks were unable to benefit from the large public facilities available to other European banks. As Table 2 shows, the total government capital injections received by four Italian banks was less than 0.30 per cent of GDP, sharply lower than levels in other EU countries. If the guaranties applied for, in particular to access the

December 2011 and February 2012 LTROs, are included, the figure rises to 7.90 per cent of GDP with a total of 258 institutions involved.

Until the end of 2010 Italian banks suffered no serious repercussions from the sovereign debt crisis, since their exposure to the debt of the peripheral states (Greece, Ireland, Portugal and Spain) was very low: about 1 per cent of the assets of the banking system as a whole. Towards the end of 2010, Italy's sovereign risk started to rise, with detrimental effects on the wholesale funding markets (Gualandri 2012).

In the meantime, the need for further recapitalisation became more pressing by market conditions and the supervisory authorities' demands in the run-up to the introduction of Basel 3, approved in December 2010, although banks are granted a relatively long transition period (end of 2018). Italian banks were trapped between a rock and a hard place, needing to raise funds from the market again but faced with an outlook of unsatisfactory profits (given the poor prospects for the Italian economy), which appeared to limit their ability to raise equity quickly.

**Table 2 Public facilities (2007-2012 June). Billion € not including USA**

	Capital	% Eu total	Guarantees	Others	Total	% EU total	Capital/GDP%	Total/GDP%	Total institutions involved
<b>USA(*)</b>	562.7		1869	421.6	2853		3.9	19.6	446
<b>Austria</b>	8.85	2.3	24.4		33.3	1.2	3.1	11.6	8
<b>Belgium</b>	20.9	5.4	170.2	5.5	196.7	7.3	5.9	55.5	6
<b>Denmark</b>	7.6	2.0	26.8	6.6	41.1	1.5	3.2	17.5	59
<b>France</b>	25.3	6.5	102.4	0.5	128.2	4.8	1.3	6.6	8
<b>Germany</b>	46.9	12.1	365.4	7.3	419.6	15.6	1.9	16.8	13
<b>Greece</b>	20.3	5.2	45.5	17	82.8	3.1	9.3	37.9	10
<b>Iceland</b>	0.8	0.2	-	-	0.8	0.0	7.5	7.5	3
<b>Ireland</b>	31.5	8.1	190.2	-	221.7	8.2	18.7	131.7	6
<b>Italy</b>	<b>4.1</b>	<b>1.1</b>	<b>119</b>	<b>-</b>	<b>123.1</b>	<b>4.6</b>	<b>0.3</b>	<b>7.9</b>	<b>258</b>
<b>Luxembourg</b>	2.8	0.7	7.2	0.2	10.1	0.4	7.1	25.5	4
<b>Netherlands</b>	30.1	7.7	94.1	8.3	132.5	4.9	5.1	22.5	14
<b>Portugal</b>	4	1.0	10.2	0.4	14.6	0.5	2.4	8.6	9
<b>Spain</b>	23.5	6.0	0.4	13	36.9	1.4	2.2	3.5	27
<b>Switzerland</b>	47.9	12.3	-	-	47.9	1.8	11.8	11.8	1
<b>United Kingdom</b>	114.5	29.4	1007.8	84.1	1206.5	44.8	6.4	67.0	18
<b>Total Europe</b>	<b>389.2</b>	<b>100.0</b>	<b>2163.9</b>	<b>142.8</b>	<b>2696</b>	<b>100.0</b>	<b>n.a.</b>	<b>n.a.</b>	<b>437</b>

Source: Processing of data from: Mediobanca R&S 2012; Eurostat, Bureau of Economic Analysis; US Commerce Department, various editions

GDP data are calculated as the average for 2007-2011.

(\*)billion \$

The picture was transformed starting in mid 2011, due to several international and domestic factors. Internationally, there were dramatic consequences from the worsening of the sovereign debt crisis of the peripheral EU states, specially Spain and Italy; the failure to find a solution to the Greek crisis; the delay drawing up new rules on governance for the European Union, and the ineffectuality of the instruments available to Europe for overcoming the sovereign debt crisis. At the domestic level, the increase in sovereign risk had further negative effects for Italian banks due to their large holdings of national government bonds. In addition, general economic forecasts began to worsen with a further decline in expected earnings, while the country's political situation was clearly no longer able to manage the emergencies facing the economy. The markets' perception of Italy's risk level soared in response to its high public debt and rising refinancing risk.

As a consequence, Italian banks were hit by the increase in sovereign risk on various fronts: funding, with a rise in retail funding costs, made more crucial by the continuing strains on the interbank market; fall in the value of the guaranties - mainly government bonds – available for refinancing with the ECB; and the conditions of access to the capital markets for the recapitalisation operations required for some of the largest banks by the EBA, following stress tests in the second half of 2011 . The total amount required by the EMU banks was 114.7 billion Euro, of which 39.4 billion was for a specific buffer required for sovereign risk. The highest figure was for Spanish banks (26.2 billion Euro). The second highest figure was for Italian banks: 15.3 billion Euro, of which 9.6 billion was for sovereign risk, due to banks' large holdings of public bonds. The third highest figure was one for German banks: 13.1 billion Euro. In the case of Italian banks, the situation varied widely amongst the five banks assessed (Table 3): for Intesa SanPaolo, Italy's largest banking group, no capital deficit was reported, while for Unicredit the figure produced was € 7.974 billion (virtually half of the total required by the five Italian banks), one third of which was due to sovereign risk.

**Table 3 Italian Banks' Shortfalls – December 2011**

Name	Total amount (bl. €)	Shortfall to 9% before application of sovereign capital buffer (bl€)
Intesa Sanpaolo S.P.A	0	0
Unicredit S.P.A	7.974	5.741
Banca Monte Dei Paschi	3.267	0
Di Siena S.P.A		
Banco Popolare - S.C.	2.731	2.357
Unione Di Banche Italiane Scpa (Ubi Banca)	1.393	0.526

Source: EBA, Recommendation and final results of bank recapitalisation plan as part of co-ordinated measures to restore confidence in the banking sector, London 8 December 2011.



By June 2012 the shortfalls had mainly been resolved, by means of both recapitalisation and asset disposal operations. The only case still pending is that of Banca Monte dei Paschi di Siena (MPS), which has recorded huge losses since 2011 due to a large extent to derivatives traded to cover the costs arising from the acquisition of Banca Antonveneta in 2007. Moreover, at the end of 2012 MPS was hit by a scandal concerning the management of these derivatives. MPS applied for access to public facilities and a new capital instrument, to be underwritten by the Treasury, was created to replace the Tremonti Bond, which the bank was no longer capable of reimbursing, and provide additional capital to meet EBA requirements. The new instrument, called the Monti Bond after the Prime Minister who first proposed it, requires EC approval as state aid. In 2013 the new management also submitted a restructuring plan for the same purpose. The total amount required is 4.071 billion Euro, also to be underwritten by the Treasury: 1.9 billion to replace the old Tremonti Bond, 171 million to pay interests on Tremonti, and two billion to meet EBA requirements, due to the shortfall reported by the 2011 stress test.

### **2.3 The deep recession phase 2012-201X**

Since 2012 Italian banks have been facing the consequences on the national economy of the financial crisis: the double-dip recession and sovereign debt tensions.

As Ignazio Visco (2013 b), Governor of the Bank of Italy states: *“In 2012 Italy’s gross domestic product was 7 per cent smaller than in 2007, households’ disposable income was more than 9 per cent lower, and industrial production was down by a quarter. Hours worked were down 5.5 per cent, and more than half a million jobs had been lost. The unemployment rate, at 11.5 per cent this March, has practically doubled since 2007; it is nearly 40 per cent among young people and higher still among those in the South”.*

Since the 2011 the Italian economy is suffering from an acute credit supply restriction partially attenuated by the unlimited liquidity supply by the ECB at the beginning of 2012. In the first four months of 2013, the contraction of lending to firms was nearly 4 per cent on an annual basis. Difficulties were even greater for SMEs, typically more depending on bank lending.

One of the main problem for banks is now the severe deterioration in credit quality and the increase in non-performing loans (NPL) generated by the lasting recession. As we will see below, the growing level of risk in lending to companies and the consequent increase in banks’ provisions, in a situation of low profitability and varying degrees of problems relating to funding gaps, capital adequacy and the gradual introduction of liquidity ratios, are some of the main causes of the credit crunch the Italian economy has been experiencing since the end of 2011, in terms of both a reduction in the amount of credit available and a worsening of lending conditions (Gualandri, Venturelli 2013). NPLs are receiving specific scrutiny from the Bank of

Italy, especially in its on-site supervision for the 20 largest banks (most of them will be included in the ECB's direct supervision programme during 2014).

The rise in NPL is a general problem in the European countries hardest hit by the crisis. The EBA (2013) survey on risk assessment (data referring to June 2012) identifies a trend of growing geographical variation in asset quality across Europe, indicating an increasing divergence in loan portfolio quality (June 2012): in six countries the ratio of impaired loans to total loans is over 16%, while in four other countries the same ratio is less than 2 per cent. Impairments are on the increase in banks in financially-distressed countries, while they remain stable in other countries. However international comparisons with regard to NPLs are difficult and provide distorted results due to a lack of uniformity in the definition of the variables in play from various points of view: supervisory regulations, accounting practices and supervisory operations in the field, the last of which, moreover, are not in the public domain (Bank of Italy 2013, Financial Stability Report, n 5, April ; EBA 2013).

In other respects the situation of Italian banks is improving, thanks to the reduction of stress in the financial markets in general and the liquidity market in particular. Banks are continuing policies to curb costs and improve risk management, partly in response to specific Bank of Italy requirements.

Although capital strengthening will have to continue, in mid 2013 most of the largest intermediaries would meet the new prudential requirements: the shortfall high-quality capital needed to satisfy the capital adequacy requirements envisaged by the Basel III (phased in by 2019) fell from €35 billion at the end of 2010, to below €9 billion in December 2012.

### **3. The role of the ECB and non-standard monetary policy measures**

During the crisis, central banks have had a key role in providing banks with liquidity and refinancing, with the aim of reducing systemic risk. During the sovereign debt phase in particular, new non-standard measures were introduced by the ECB (Table 4) and other central banks, along with very low interest rates and unlimited liquidity. The use of unconventional monetary policy instruments by the BCE and the injection of large amounts of liquidity onto the market have helped to restore the proper transmission of monetary policy in the financial market (Draghi 2012).

**Table 4 ECB - Non-standard monetary policy measures**

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Securities Market Program (May 2010- August 2012)	SPM	Purchase of public and private securities by the ECB to ensure markets' liquidity and stabilise security prices. These measures were sterilised by operations which reabsorbed the liquidity issued. Especially from August to November 2011, SMP operations mainly involved the purchase of Italian and Spanish government bonds, to reduce the stresses generated by the sovereign debt crisis.
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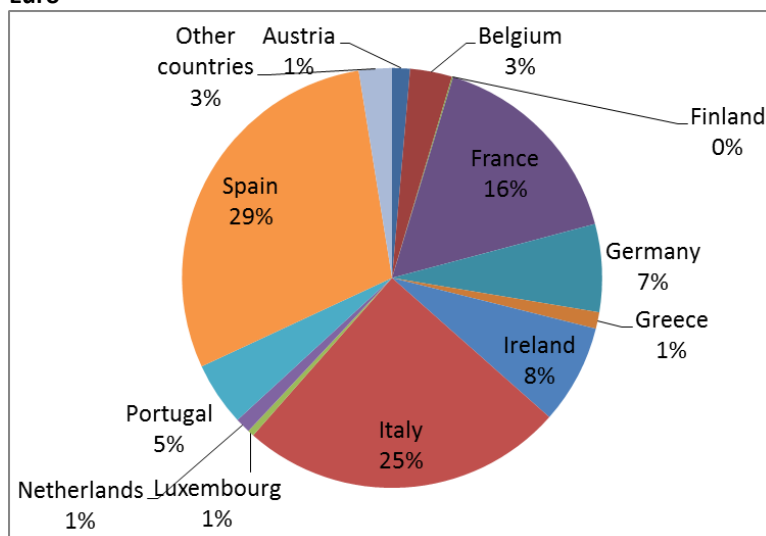
Longer-term financing operations	These involve the temporary creation of monetary base. Programmes have been introduced with expiry at six months in 2008, one year in spring 2009, and three years in December and February 2012: they are known as the longer-term financing operations (LTROs)
Outright Monetary Transactions (so called Big Bazooka)	Operations involving the definitive purchase of securities, announced by Mario Draghi in July 2012, and so far never used. The size and duration of any such operations have not been set a priori. Operations are subjected to strict OMTs (so called conditionality for the countries concerned, related to the activation of a financial aid programme by the EFSF or ESM. The sterilisation of the effects of operations on liquidity (as in the case of the SMP, which was terminated on announcement of the OMTs) is envisaged

The ECB's three-year LTROs were particularly important for Italian banks, enabling them to survive the exodus of foreign investors which began in summer 2011, caused by the sovereign debt crisis and the consequent crisis of confidence. Italian banks tapped the ECB's two Longer Term Refinancing Operations (LTROs) for quite large amounts: 255 billion Euro, 25 per cent of the total granted (Figure 2).

Italian banks (mainly the largest ones) and Spanish banks accounted for the lion's share of the first LTRO (21 December 2011) accounting for 24 per cent each of the total amount of 490 billion Euro (net 210) allocated to 523 Euro-area banks. In the second LTRO (29 February 2012), which granted a total amount of 530 billion Euro (net 290) to 800 banks, Italian intermediaries (mainly medium and small banks) took a share of 26 per cent, exceeded only by Spanish banks with 34 per cent.

As of June 2013, 200 billion of the first LTRO and 101.5 of the second had been reimbursed in advance. As of that date, Italian and Spanish banks had not made any advance reimbursements. The largest Italian banks started to make some advance repayments after that date.

**Figure 2 - LTROs (21.12.2011 and 29.02.2012) Countries' shares of the total amount of 1,020 billion Euro**



#### **4. The banks' situation up until the sovereign debt crisis**

The various phases of the crisis had very different effects on the financial situations of Italian banks.

At the time of the subprime mortgage crisis, the Italian banking system had been enjoying a period of growth, with high margins and ongoing capital consolidation, with investments and development strategies mainly focusing on commercial banking activities. With some differences between large and small-sized institutions, Italian banks' level of financialisation of their assets is generally low, and their credit intermediation operations are based mainly on a deposit funded model (Mottura P., Paci S., 2009) in which, on the assets side, loans predominate over other areas of business, while on the liabilities side retail funding (sight deposits, term deposits and bonds) plays a larger role than wholesale funding and liquidity generated by the securitisation of assets.

Together with a low funding gap (the proportion of loans not financed by retail funding), in general this bank financial equilibrium and operating model mitigated the consequences of the 2007 financial crisis, leading to fewer liquidity, financial instability and credit rationing problems, especially amongst the smallest banks. ALM strategies and the mainly "retail" composition of banks' assets and funding helped to maintain their economic value even in face of the sharp drop in value of financial assets on the market as a result of the crisis and, equally important, helped to increase Italian banks' soundness, since Basel 2 requires higher weighting of loan portfolio risk. Italian banks therefore faced the first phase of the crisis with a satisfactory level of capitalisation and a low degree of leverage (Draghi, 2011).

The banking system's greater stability was also generated by the importance of funding by retail depositors (above the European average) and its general soundness.

An analysis of the effects of the sovereign debt crisis for Italian banks must consider two levels: the first, "real" level, relating to its impact in terms of the aggravation of the recession, and the second, "financial", regarding the effects of the sovereign debt crisis on monetary and financial parameters, and thus on banks' profit and loss accounts and balance sheets.

##### *Real effect*

The sovereign debt crisis occurred during a period of recession, which had reduced disposable income and domestic demand and consumption, while it decreased companies' sales and squeezed their traditional markets, leading to a need for increased financing and a deterioration of their financial situation. Moreover, both sectors were affected by tough fiscal and budget measures by the state, intended to deal with the effects of the crisis and meet the requirements of the EMU. These triggered a further drop in disposable income and domestic demand, as well as worsening payment times for sums due to companies from government bodies at all levels. All this led to a gradual, remorseless weakening of the retail clientele of

households and small-medium enterprises, i.e. the main counterparties of Italian banks of all sizes. From the banking point of view, all this is generating a deterioration of the quality of the loans portfolio and an increase in NPLs, while on the liabilities side it is reflected in a reduction in households' ability to save, meaning difficulty in obtaining retail funding.

The sustainability of the "traditional" banking model, based on funding from retail deposits and a higher incidence of lending to households and businesses, with less dependence on wholesale borrowing and a low funding gap, becomes more complex and more difficult to manage.

### *Financial effect*

During the last six months of 2011, the increased risk level of some European states, including Italy, as perceived by the markets and institutional investors, led to a sharp surge in yield differentials between Italian and German government bonds. The rise in the yield of Italian government bonds put pressure on Italian banks' financial situation with regard to both lending and funding policies.

The spread triggered between the yields on Italian and German state securities led to both a swift rise in the cost opportunity of bank deposits and bonds for the banking clientele and greater difficulty in obtaining funding, especially from foreign investors. It is possible to identify three channels by which sovereign tensions may be transmitted to bank funding and lending conditions (Panetta et al, 2011):

- losses of value due to the write-down of the government bonds amongst banks' assets, which reduce their profitability and, in some cases their capital, and may lead to deleveraging with a consequent reduction in the amount of credit they are able to offer (balance sheet channel);
- the reduction of the usefulness of government bonds as guarantees for interbank transactions, or for refinancing operations with the ECB (liquidity channel);
- the effects triggered on the costs of funding and lending, which reduce banks' ability to repay their creditors, or the demand for credit (price channel).

These phenomena, fears regarding Italian banks' risk level and the growing uncertainty even filtered through to the retail clientele and depositors, generally more immune to market volatility.

Taken as a whole, these problems affect banks' volumes, liquidity and funding costs, forcing them to converge on shorter-term funding instruments to mitigate the interest rate risk and the impact on their profitability (and to tempt investors).

Obviously, the financial effects of the crisis do not only affect the liabilities side but also directly involve lending policies and volumes. Most Italian banks have modified their lending policies and revised their criteria for the selection of new and the review of existing loans, the volumes of credit granted and, in particular, the pricing policies adopted.

All this, together with the banks' lack of liquidity, the refinancing risk and the increase in interest rates resulting from the increased cost of funding, has led to a reduction in amount of credit available to the economy. In contrast with events in 2009, the credit squeeze involved

not only the largest banks but the whole of the industry, including the smallest institutions, which in this phase did not act as a financial buffer for Italian businesses, with serious consequences for the financial stability of firms, especially the smallest companies.

## 5. Current trends and future prospects for the Italian banking system

The sovereign debt crisis and the increase in the spread between Italian and German bond yields hit Italian banks especially with regard to funding, leading to a rise in the relative cost and reducing the resources available. Naturally, the most immediate effects were felt on the wholesale markets, which responded at once to the write-down in value of bank portfolios containing government bonds, the reduction in the value of government bonds used as collateral in the context of the transactions guaranteed and, indirectly, the effects on the rating of the banks resident in the countries affected by the crisis. The negative effects then gradually also extended to retail funding, as a result of the deterioration of the general situation, the uncertainty and the crowding-out of bank securities by the returns available on government bonds.

The situation of the Italian banking system is currently extremely complex, since it is suffering the effects of two financial crises (subprime and sovereign debt crisis) and a double-dip recession triggered after the subprime mortgage crisis, together with the uncertainty of the political scenario and the demands of the international regulatory framework, which set tight capital adequacy requirements.

Our analysis of the impact of the sovereign debt crisis on Italian banks' intermediation model sets out to examine:

- the effects on the financial and capital structure of the Italian banking system, illustrated by comparisons with the other Euro-area countries, and lending and funding operations;
- the effects on financial and capital soundness and profitability.

The analysis uses the harmonised statistics compiled by the Bank of Italy as a member of the ESCB, are available in the section "Eurosystem statistics: Euro-area aggregates and national contributions" section of the Bank of Italy website. The data refer to the aggregate balance sheets of MFIs, excluding the Eurosystem.

### 5.1 - Effects on financial and capital structures

On the liabilities side, the occurrence of the two crises in rapid succession confirms a distinctive feature of the Italian banking system: the high degree of trust it enjoys and its consolidated ability to attract funding, especially on the retail markets.

**Table 5 – Deposits of other Euro residents(\*)/Total assets (\*\*)**

	J 2013	D 2012	J 2012	D 2011	J 2011	2010	2009	2008	2007
SK	68.2	68.0	66.2	65.7	62.6	62.8	61.7	56.2	54.2

EE	53.1	50.8	49.5	48.9	43.9	42.9	38.0	34.8	0.0
BE	48.5	45.7	41.1	39.4	43.3	41.1	39.3	34.8	32.4
ES	44.9	42.5	42.5	46.4	49.0	49.8	48.9	48.6	48.7
SI	42.6	41.1	40.5	40.6	40.0	39.2	37.5	39.0	41.8
DE	40.7	38.2	36.5	36.8	38.3	35.8	38.7	35.8	34.5
GR	40.6	38.0	35.7	37.8	38.8	41.9	49.6	50.3	51.5
PT	39.4	37.8	37.8	40.6	40.6	40.5	40.3	40.9	39.9
NL	38.5	35.9	35.1	35.4	36.5	36.3	36.7	35.5	34.4
CY	37.3	37.8	37.4	37.2	37.6	36.5	30.2	34.2	36.1
IT	36.8	35.5	34.1	34.1	36.5	37.9	32.3	30.9	30.8
Area Euro	34.6	33.3	31.7	32.1	33.6	32.7	32.2	30.5	30.3
AT	34.5	33.2	32.3	31.3	31.2	30.9	29.4	28.0	31.4
FI	26.4	22.7	20.0	19.4	24.3	24.6	27.3	27.2	31.3
LU	25.2	22.2	21.4	19.6	20.5	19.1	18.2	16.3	19.2
FR	23.6	24.0	22.2	22.3	23.0	22.1	21.0	19.6	20.0
MT	22.1	21.7	20.9	20.7	19.4	18.7	21.2	20.5	22.5
IE	19.8	16.8	15.6	14.9	14.5	13.2	13.4	12.5	13.0

Source: Bank of Italy - "Eurosysteem statistics: Euro-area aggregates and national contributions"

(\*) Excluding Central Government and Monetary Financial Institutions

(\*\*) Aggregated balance sheets of MFIs, excluding the Eurosystem

In view of the turbulence and uncertainties on the financial markets, the deposits held by Italian banks have played an essential role in financing bank lending, with an increase above the Euro area average and, a point worth underlining, a trend which is the opposite of that in the other countries involved in the sovereign debt crisis. The deposits of ordinary customers have become more important for the funding of Italian banks, while the deposits of Monetary and Financial Institutions have shrunk due to factors related to the system's liquidity levels (Table 5). During the phases which followed the sovereign debt crisis, there was a slight fall-off in sight deposits but a significant rise in term deposits, which increased by 55 per cent compared to June 2011, especially deposits at 1 and 2 years.

**Table 6 – Debt securities issued/Total Assets**

	J 2013	D 2012	J 2012	D 2011	J 2011	2010	2009	2008	2007
IT	21.8	22.6	22.5	22.3	21.9	21.2	21.8	20.0	18.0
AT	21.7	22.0	22.5	23.7	24.5	25.0	24.5	23.9	23.4
NL	19.7	20.1	19.9	20.0	20.9	20.2	18.5	15.5	16.6
PT	16.9	17.8	16.9	17.0	15.0	14.8	15.3	11.2	8.1
FI	15.5	13.2	12.2	10.9	12.7	12.5	12.8	14.2	16.2
DE	14.9	15.0	15.0	16.0	17.2	17.0	20.2	20.4	21.6
Area Euro	14.4	14.8	14.6	14.9	15.4	15.1	15.8	15.2	15.7
FR	13.6	14.6	14.2	14.3	14.6	14.1	13.6	14.1	13.8
ES	9.9	11.0	11.0	12.0	12.3	12.4	12.7	11.7	14.1
IE	6.3	6.5	5.9	6.9	7.2	7.1	8.8	8.5	10.0
SK	6.0	5.9	6.3	6.0	5.9	6.0	6.2	5.5	5.2
BE	5.7	5.6	6.0	5.9	6.9	6.2	7.6	5.4	5.0
LU	5.1	5.5	5.5	5.3	5.8	6.0	6.5	5.7	6.7
SI	4.2	4.7	6.8	8.0	8.9	9.6	7.1	3.7	3.4
MT	1.3	0.7	0.8	0.8	0.6	0.6	0.5	0.5	0.3
CY	0.5	1.3	1.6	2.1	2.1	1.9	3.4	4.1	5.3
GR	0.3	0.7	0.8	0.3	0.5	0.7	0.5	0.6	0.3
EE	0,0	0,0	0,0	0,0	0,0	0,0	0,5	4,5	0,0

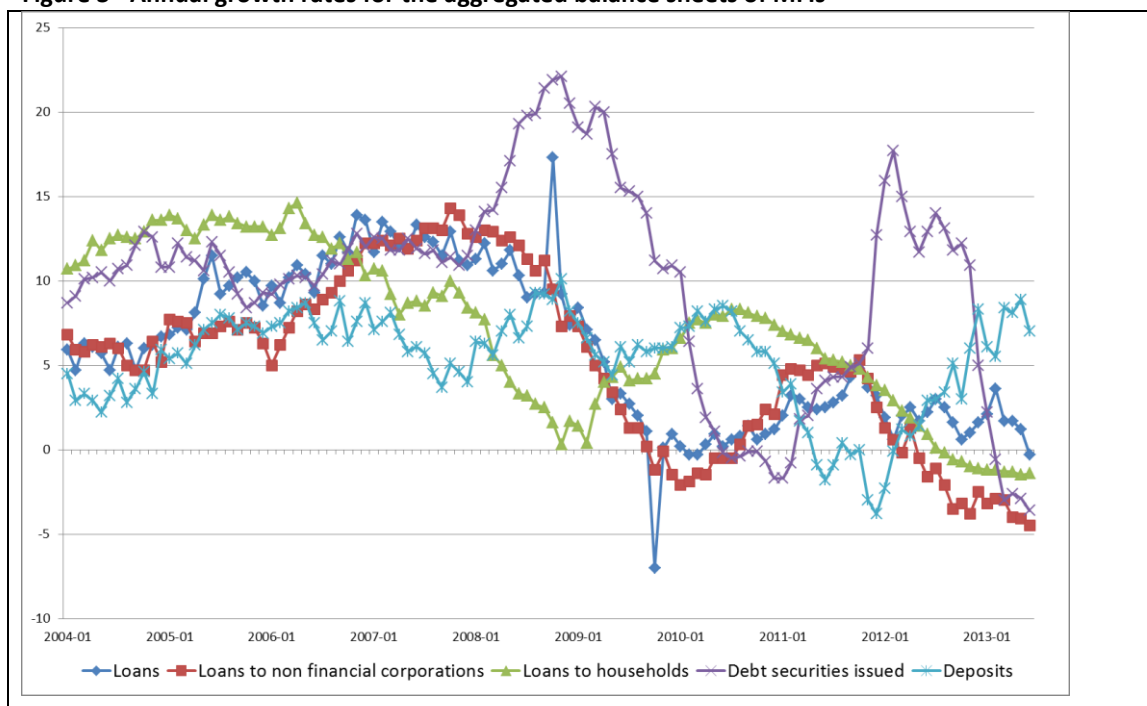
Source: Processing of Bank of Italy - "Eurosysteem statistics: Euro-area aggregates and national contributions"

(\*) Aggregated balance sheets of MFIs, excluding the Eurosystem

While funding by ordinary customers held up well, there was a slight reduction in bond issues, especially in 2013, which can probably be explained as the effect both of the stagnation caused on the markets by the sovereign debt crisis, and of the low economic benefits to be expected from bond issues in view of the high opportunity cost generated by government bond yields (Table 6).

During the last few months (the early months of 2013), the total funding of Italian banks has risen, mainly reflecting the positive trend in deposits by residents, which have grown by about 6 per cent. The increase in deposits of this kind has gone a long way towards compensating for the drop in funding from non-residents and wholesale funding.

**Figure 3 - Annual growth rates for the aggregated balance sheets of MFIs**



Source: Processing of Bank of Italy - "Eurosystem statistics: Euro-area aggregates and national contributions"

(\*) Aggregated balance sheets of MFIs, excluding the Eurosystem

The effects on funding impacted on asset management decisions, especially on credit, where banks first modified their pricing strategies to pass the increase in the cost of funding on to borrowers and then adopted more tighter selection criteria, with the aim of reducing lending and, specifically, the financing of the highest-risk corporations. During the last year, the trend in lending to households and firms has been negative (Figure 3). Bank customers are suffering the effects of the further worsening of the recession in the country's economy, which is causing a widespread deterioration of its credit rating.

There has been a high degree of restructuring of bank assets, with a significant reduction in the size of loans portfolios in relation to total investments. The total loans/total assets ratio has fallen from 67 per cent in 2010 to 58 per cent in June 2013, with a sharp drop in concomitance with the sovereign debt crisis, i.e. from June 2011 to June 2012 (Table 7).



A large proportion of this decrease relates to monetary and financial Institutions (MFI), which halved their interbank lending in response to the 2011-2012 liquidity crisis.

The Italian banking system is revising its lending policies and cutting its lending quotas, especially to non-financial corporations (Figure 4.1). The proportion of assets employed for lending to this customer segment fell from 24 per cent in 2011 to 20 per cent in June 2013. The reduction in lending to businesses reflects both the greater severity of lending criteria and banks' need to reduce their volume of loans to bring them into line with their liquidity and the risk level their balance sheets are able to support. However, there is also the significant effect of the shrinkage in the demand for credit, triggered by the economic situation, which has put investment plans and thus the need for the relevant financing on hold. Firms are experiencing low operating margins due to the weakness of demand, which is depressing their capacity for self-financing, alongside a lengthening of payment times and a deterioration in the quality of receivables.

**Table 7- Loans to Euro area residents/Total Assets**

	J 2013	D 2012	J 2012	D 2011	J 2011	2010	2009	2008	2007
EE	82	83	79	78	76	82	82	86	0
SI	74	73	73	73	73	73	73	74	70
CY	69	64	62	60	59	54	54	56	56
SK	66	65	65	66	65	64	64	73	69
AT	60	61	61	60	60	60	60	59	57
GR	60	60	63	65	66	58	58	59	61
DE (2)	58	57	57	56	57	61	61	60	59
<b>IT</b>	<b>58</b>	<b>59</b>	<b>59</b>	<b>61</b>	<b>64</b>	<b>67</b>	<b>67</b>	<b>67</b>	<b>68</b>
ES	57	59	60	62	64	66	66	69	73
NL	56	55	56	56	55	56	56	54	54
Area Euro (1)	55	55	55	55	56	57	57	57	57
PT	54	55	55	57	59	65	65	69	72
FR	52	55	52	53	54	52	52	51	52
FI	50	51	46	44	44	49	49	48	55
BE	47	45	45	46	48	47	47	46	51
LU	43	43	44	43	42	39	39	41	41
IE	36	36	37	40	40	38	38	39	38
MT	28	30	27	31	31	28	28	27	27

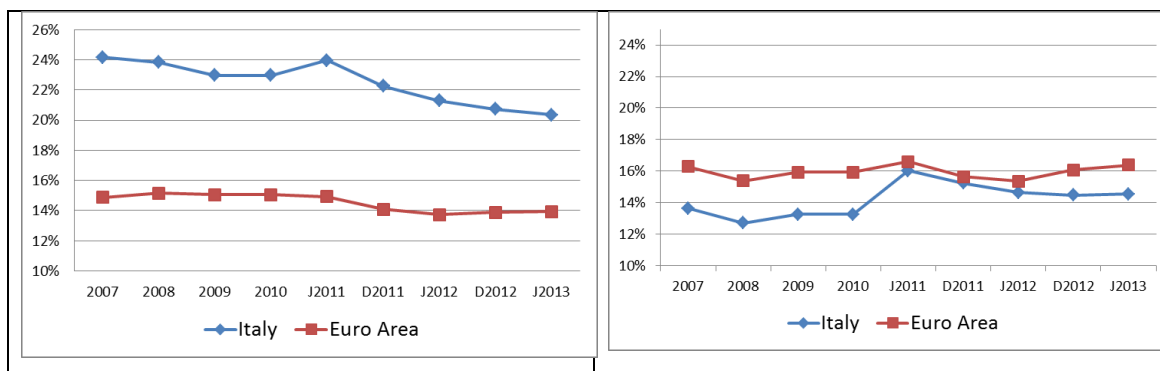
Source: Processing of Bank of Italy - "Eurosysteem statistics: Euro-area aggregates and national contributions"

(\*) Aggregated balance sheets of MFIs, excluding the Eurosystem

Banks have made no changes to the quota of assets allocated for lending to households, which has remained more or less constant throughout the period, although there has been a significant shift towards lending for home purchases and away from consumer credit (Figure 4.2).

**Figure 4.1 – Loans to Non-Financial corporations/Total Assets**

**Figure 4.2 – Loans to Households/Total Assets**



Source: Bank of Italy - "Eurosistem statistics: Euro-area aggregates and national contributions"

(\*) Aggregated balance sheets of MFIs, excluding the Eurosystem

Restructuring of assets and a reduction in loans, especially to businesses, have occurred in all the countries most seriously hit by the sovereign debt crisis, and Spain, Portugal and Italy in particular. However, the Euro-area average has remained more or less stable, if these countries are excluded. In spite of the reduction in the proportion of assets allocated for loans during the last two years, Italy is still a typically bank-based country, with the percentage of firms' financing obtained from banks remaining above the Euro-area average. The Italian figure for lending to households is in line with the Euro-area average.

**Tab. 8 – Loans to deposits ratio (\*)**

	J 2013	D 2012	J 2012	D 2011	J 2011	2010	2009	2008	2007
Area Euro	103	105	106	107	108	107	107	108	112
BE	78	77	80	82	84	87	86	86	95
DE	101	103	106	103	101	101	101	101	102
EE	123	127	123	125	128	154	159	182	-129
IE	93	90	88	91	93	90	92	98	118
GR	91	84	86	90	92	79	80	84	95
ES	88	92	94	99	101	102	101	106	112
FR	111	112	112	112	116	116	115	115	121
IT	103	108	108	113	119	119	125	125	129
CY	123	111	102	99	99	85	81	88	108
LU	92	95	101	100	95	96	91	94	90
MT	75	84	78	86	84	66	64	60	62
NL	123	129	132	135	127	128	126	117	116
AT	110	110	109	112	111	117	110	106	108
PT	94	96	94	95	98	101	115	115	124
SI	101	100	101	101	103	102	96	94	92
SK	90	88	89	91	91	85	87	97	92
FI	149	173	178	179	146	137	144	140	145

Source: Processing of Bank of Italy - "Eurosistem statistics: Euro-area aggregates and national contributions"

(\*) Aggregated balance sheets of MFIs, excluding the Eurosystem

The Italian banking system's liquidity level is showing signs of improvement thanks to the gradual reduction of the funding gap (Bank of Italy 2013, Financial Stability Report, n. 5, April). Tab. 8 shows the ratio between loans to customers and customer deposits, which is a proxy for the funding gap and reveals that the liquidity stresses experienced by Italian banks are gradually decreasing thanks to both a reduction in lending and an increase in customer

deposits. This positive trend is confirmed by the Loans/(Deposits + Bonds) ratio, which has fallen from 89 per cent in 2007 to 70 per cent in June 2013.

However, in spite of its good retail funding capacity, one crucial factor affecting the Italian banking system is its difficulty in obtaining funding on the wholesale markets; after a cautious recovery at the end of 2012, wholesale borrowing has now slumped again due to the political uncertainty. All this is aggravating the problems of both the volumes and the due dates of the loans received from the BCE, and introduces an element of risk into Italian banks' balance sheets if the country risk were to rise back to the levels seen at the end of 2011, with an increase in the spread between Italian and German government bonds and the consequent downgrading of Italian bank securities.

From the capital point of view, in spite of the difficulties in the real economy there is an improvement in the average leverage of Italian banks, which, however, was already below the European average in 2007 (Table 9). The ratio between Total Assets and Net Capital is about 10.9. The biggest Italian groups' ratio between Total Assets and Tier 1 capital confirms this difference, with a figure of 18 compared to a European average of 23.

This is due to a large number of factors; first and foremost the demands of the changes to regulations post-2008, which have toughened capital requirements and generated an increase in Core Tier 1 capital, reflected in banks' net capital. Although partly responsible for a reduction in ROE, the reduction in the leverage ratio has allowed an improvement in the economic and financial stability of Italian banks, and banks which have experienced low margins during the last few years, together with a reduction in their risk levels.

From the regulatory point of view, the gradual improvement in capital adequacy continues: the Tier 1 Capital ratio of the 14 largest Italian groups is about 11.1 per cent, an increase compared to 2011, while the Total Capital Ratio is about 14.15 (Bank of Italy, Financial Stability Report, n. 5, April). The levels achieved are the outcome not only of banks' efforts to recapitalise but also of risk management activities, which have helped to significantly upgrade assets and restructure them in favour of less capital-intensive operations, as well as the effects of the ever-increasing use of more up-to-date internal models.

**Table 9 – Leverage ratio (Total Assets to Capital)**

	J 2013	D 2012	J 2012	D 2011	J 2011	2010	2009	2008	2007
MT	5.4	4.9	5.1	5.0	4.9	4.9	9.2	11.8	10.5
CY	6.7	8.5	9.0	11.6	9.3	10.5	12.9	11.8	9.7
SK	7.2	7.1	7.5	7.3	8.2	8.3	8.6	10.6	11.6
EE	7.4	7.9	8.0	8.3	8.3	7.8	8.5	10.5	0.0
GR	7.4	8.3	11.0	9.0	10.7	11.6	12.5	16.4	13.4
IE	8.1	8.6	9.4	10.3	12.4	13.7	18.2	23.5	22.3
ES	8.1	8.9	9.7	9.9	10.9	12.3	12.8	14.1	14.6
AT	9.6	9.6	10.8	11.3	10.8	10.9	11.5	13.9	11.7
PT	10.5	11.2	12.3	13.9	13.1	12.9	12.1	13.1	12.4
IT	10.9	11.3	11.3	10.7	10.0	10.9	12.7	13.4	12.9
Area Euro	13.4	13.9	15.0	15.0	14.7	15.7	16.2	18.0	17.5
SI	13.5	13.0	12.6	12.8	11.5	12.6	12.1	12.0	11.8
FR	16.1	15.6	16.9	16.9	15.9	16.4	16.8	18.5	18.1
LU	17.7	17.6	20.3	21.1	20.1	20.4	20.8	26.5	23.2
BE	17.9	19.0	20.8	21.4	18.9	20.5	20.8	22.9	19.9

DE	18.0	19.8	21.0	21.3	20.2	21.8	19.6	20.9	21.6
NL	20.6	20.9	21.1	22.0	22.6	22.3	21.6	23.5	19.3
FI	20.8	24.1	25.0	24.9	19.9	19.2	16.6	17.3	13.8

Source: Processing of Bank of Italy - "Eurosystem statistics: Euro-area aggregates and national contributions"

(\*) Aggregated balance sheets of MFIs, excluding the Eurosystem

## 5.2 - Effects on financial stability and margins

Given this situation, margins in the Italian banking system require careful attention, since they are the most critical factor in ensuring banks' financial stability. A large number of factors have hit Italian banks' margins and continually reduced them from 2007 to the present day. First and foremost, the commercial bank model widely adopted in the Italian system has lower structural profit margins than other credit intermediation models. Moreover, Italian banks' strong focus on the retail sector and their close interdependence with the business and household sectors have generated a sharp reduction in the system's overall profitability since 2008 (Figure 5).

ROE shows a downward trend throughout the period, and even when is corrected by the write-downs in intangible assets, the overall result is still negative (Figure 6). There is no doubt that one factor depressing ROE is the increased capitalisation and lower degree of leverage. However, during the last few years Italian banks have not been capable of generating value due to the significant reduction in their operating profitability: since 2007 the net interest income/total asset ratio has fallen at an average annual rate of -2.1 per cent.

Figure 5 – ROE

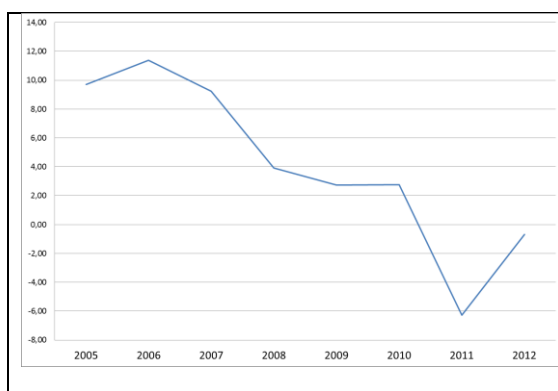
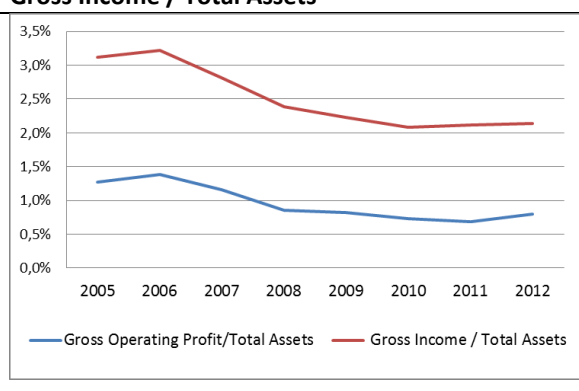


Figure 6 – Gross Operating Profit / Total Assets  
Gross Income / Total Assets



Source: Processing of Bank of Italy - Money and banking Statistical Database (Bip On-Line)

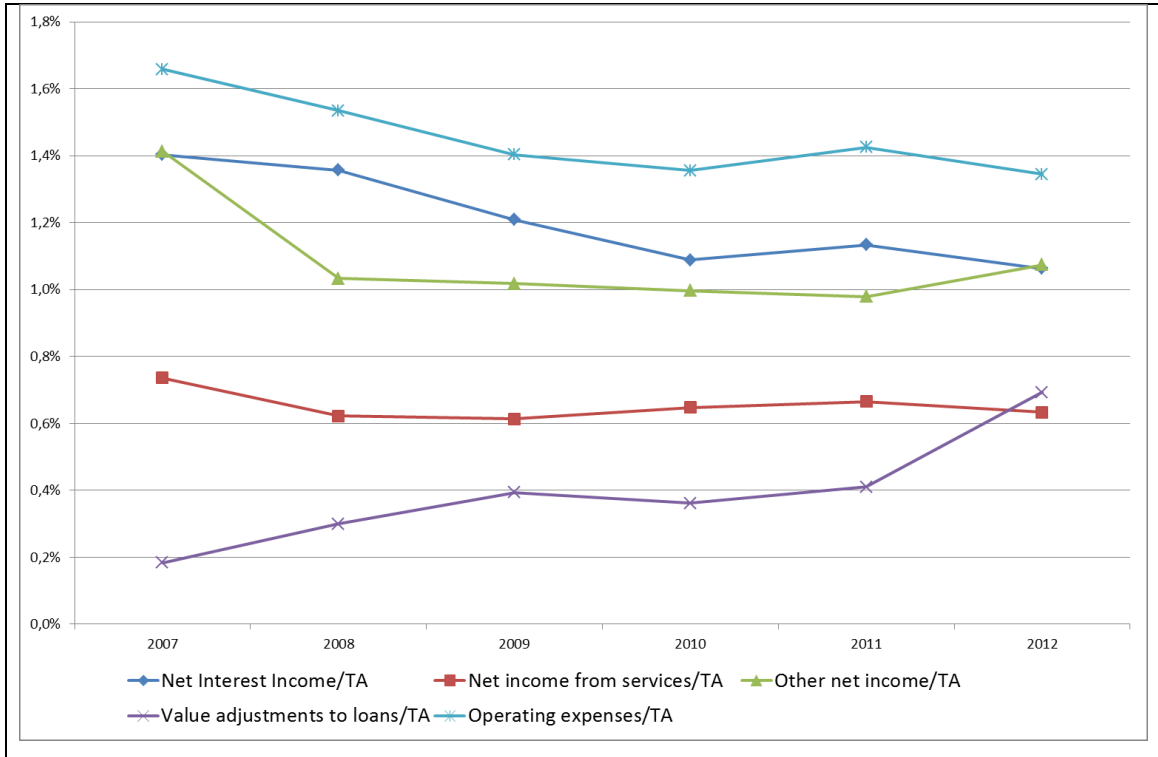
On the assets side the profitability of lending activities (margin of interest) is suffering from the inability of traditional pricing systems to generate an acceptable return on credit given variable interest rates indexed to a very low Euribor and a deterioration in credit rating not envisaged when loans were granted, while on the funding side it is hit by the rise in the cost of borrowing and the need to reduce the liquidity gap due to liquidity stresses. During the last year, margins deteriorated in the typically retail earnings areas: loans and services. One positive input which helps to cushion the drop in profitability comes from securities trading, which has enjoyed a particularly successful period, but by its very nature this sector is not capable of guaranteeing the same support for margins during the next few years (Figure 7).

On the costs side, there has been a gradual reduction in operating costs throughout the period, except for 2011, generated by the major banking sector reorganisations and the rationalisation of business units and staff levels. However, the system is not showing the benefits of this recouped efficiency, reflecting the lack of alignment between trends in earnings and operating costs. At the end of 2012, the Cost Income ratio was 62.9 per cent, compared to 58.9 per cent at the end of 2007. One key negative earnings item is credit write-downs, which rose constantly throughout the period and contributed to the worsening of the income situation (Figure 7).

As already mentioned, Italy's economic situation is affecting the quality of banks' loans. After the effects of the initial phase of recession which followed the 2008 crisis, the Italian banking system is now dealing with the consequences of the second phase of recession, triggered by the sovereign debt crisis, which has led to a significant rise in the ratio of bad debts, standing at 4.5 per cent for businesses and 1.5 per cent for households in 2013 (Figure 8). Many businesses and households, already weakened by the 2009 crisis, have been unable to withstand the effects of such a long recession and the consequent stresses on demand and the labour market.

Impaired loans, which include non-performing and doubtful loans and restructured, overdue or overdrawn credits, amount to more than 14 per cent of total loans to customers at the end of the period considered<sup>1</sup>, an exceptionally high value exacerbated by the slowness of the judicial credit recovery procedures and the long deductibility times under the fiscal regulations governing bad debts (Figure 9).

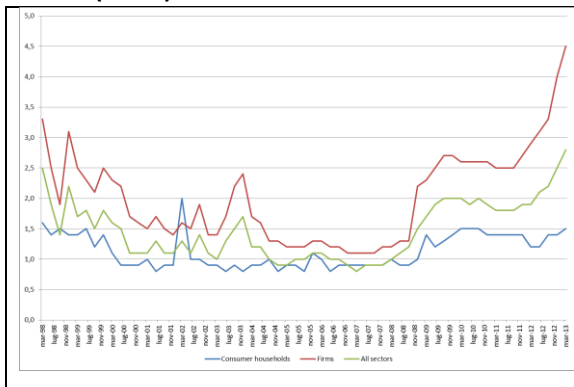
**Figure 7 – Components of Gross Operating Profit of Italian Banks**



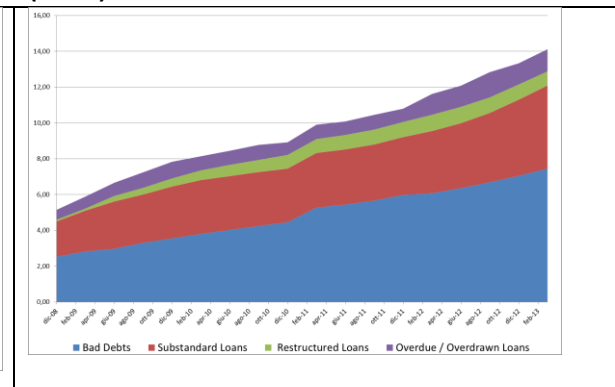
(\*) Value adjustments to loans means Value Adjustments and Re-Adjustments to Loans and Allocations to Provisions for Loan Losses

Source: Processing of Bank of Italy - Money and banking

**Figure 8 - Ratio of new bad debts to outstanding loans (Val.%)**



**Figure 9 - Impaired Loans/Total Loans To Customers (Val.%)**



Source: Processing of Bank of Italy - Money and banking Statistical Database (Bip On-Line), Financial Stability Report 1/2013, Economic Bulletin, n.73, 2013

Thanks in part to intensive action by the supervisory authorities, Italian banks have increased their degree of coverage of their NPLs, which have risen during the last few years. The Bank of Italy is monitoring this phenomenon carefully, requiring banks to keep the value adjustments of their total loan portfolios in line with the current and forecast trend in the general

economy. Moreover the second pillar of the Basel accords imposes specific additional capital requirements for banks found to be significantly below the system average when inspected. It should be remembered that in Italy, the definition of NPLs comprises all credits that have deteriorated in any way (including “substandard loans” - loans to customers in temporary difficulties that can be expected to be cleared up in a reasonable time) gross of any security held. This leads to an overestimation of NPLs in international comparisons which the Bank of Italy has estimated at around 47 per cent; this would give a coverage rate of about 54.9 per cent in 2012 (Bank of Italy, Financial Stability Report, n.5, 2013).

## **6. Conclusions**

The impact of the financial crisis on the various banking systems has been quite severe, even dramatic, and has required interventions of different kinds: bail-out operations by governments; regulatory and supervisory rethinking by policy makers and supervisory authorities; the definition of new strategies and the refocusing of their business on the part of financial intermediaries.

Italian banks' specific intermediation model explains why they suffered less than those of other countries during the first phase of the crisis, requiring one of the lowest levels of public facilities in the EC as compared to GDP. Most of these same characteristics have mutated from positive to negative factors since the sovereign debt crisis, which hit Italy hard, and during the present deep recession. The negative repercussions of a long period of low economic growth, since the mid Nineties, and two very severe recessions in 2008-2009 and since 2011, are now being felt by the economy as a whole, and thus by the banks.

The double-dip recession has significantly weakened businesses and households, Italian banks' key customer segments, and their borrowing and saving capability, impairing the sustainability of the “traditional” intermediation model. The sovereign debt and country risk have placed further pressure on Italian banks' financial stability, affecting first their liquidity and secondly the cost and volumes of funding and loans.

In the period since the zenith of the sovereign debt crisis, the Italian banking system has regained its financial and liquidity equilibrium by increasing retail funding and reducing loans: the loans to deposits ratio has fallen by 16 percentage points in two years. From the capital point of view, there has been significant deleveraging of the financial structure and gradual capital reinforcement, partly due to regulatory requirements.

The restoration of the system's financial and capital stability has not been accompanied by a similar recovery in its earnings, since given the current recession and monetary policy, the prospects for growth of Italian banks' core assets are poor, especially for the less diversified banks with a strong focus on the domestic market.

Italian banks' operating margins are adversely affected by the deterioration in the quality of loans and the low level of net interest income. On the assets side the profitability of lending activities (margin of interest) is suffering from the inability of traditional pricing systems to

generate an acceptable return on credit given variable interest rates indexed to a very low Euribor and a deterioration in credit rating not envisaged when loans were granted, while on the funding side it is hit by the rise in the cost of funding and the need to reduce the liquidity gap due to liquidity stresses.

It is imperative for banks to switch towards intermediation models including a higher proportion of financial intermediation and services, and integrate them into their existing business models. However, many Italian banks are too small to take this opportunity, because changes of this kind require major investments in facilities and skills.

The system's low level of profitability could be a major factor of weakness in the near future, especially in the absence of an economic recovery capable of strengthening Italian banks' traditional counterparties: businesses and households.

In this situation, the transition to Basel 3, the asset quality review and the forthcoming stress tests could apply further pressure to the balance sheets of Italian (and probably also European) banks, by requiring large provisions to increase the degree of coverage and prepare for the effects of the stress tests. Very probably, also in view of the weakness of Italy's political situation and the risk of a fresh worsening of the sovereign debt crisis, further capital increases will be necessary, in a context in which banks are unable to generate value, there is a lack of institutional investors (not only foreign but also Italian) capable of supporting them, and the market is generally weak.



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<sup>1</sup> *“The definition of non-performing loans (NPLs) varies between Western European nations.*

*Supervisors or at least general practice in the majority of Western European countries seem to endorse the rule that for a loan to be non-performing, at least one of two (primary) elements has to be present: (1) principal or interest 90 days or more overdue, and (2) existence of underlying well-defined weaknesses of loan or borrower. However, there are also other (secondary) elements that have an impact on NPL measurement and the comparability of definitions: the question whether a restructured loan is classified as NPL or not, whether the presence of a collateral or guarantee influences loan classification or not, whether the full outstanding value or only part of a loan is reported as non-performing, and whether a bank is required to downgrade all loans to a given debtor if any of these loans are classified as impaired or not” in Barisitz S., “Non-performing loans in Western Europe – A selective comparison of countries and national definitions”, in Oesterreichische Nationalbank, *Focus on European Economic Integration*, Q1/13*

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