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A long-term approach to Italian banks’ profitability: paradise lost?
by Giuseppe Lusignani, Professor of Economics and Financial Intermediaries, University of Bologna and Marco Onado, Senior Professor of Finance, Bocconi University
The long-term profitability of banks is one of the most important issues emerging from the financial crisis. It is now clear that the stellar returns of the last decade (particularly to shareholders, i.e., the return on equity) were the result of decreasing capital and hidden risks (a “mirage”, more than a “miracle” as it has been said). The effect on the banks has been strongly dependent on the business model, the main differences being between investment banks, wholesale banks and retail banks. The problem for retail banks is what will be the profitability of the traditional intermediation business in the foreseeable future. To answer this question, one has to look at the main drivers of profitability in the long term. The Italian banking system is, therefore, an interesting example because it is traditionally retail orientated and underwent in the last two decades a significant process of privatization, consolidation and modernization; so much so that, it proved to be very robust when the financial crisis burst. Moreover, it is one of the few banking systems for which data is available since the late 1960s. The paper shows that today’s low profitability is not only the consequence of the financial crisis, but of a steady decline that began at the end of the 1980s. As the level of profitability proves to be determined mainly by the level of interest rates, a reversal of this trend does not seem likely in the foreseeable future. Consequently, future rebounds of profitability can only come from significant rationalizations, which apparently have not been delivered in the past merger wave, which were meant to achieve economies of scale and scope. This means not only cutting staff costs, but also a radical restructuring of distribution networks and the ways in which customers access bank services.
Abstract
This paper examines the long-term profitability of the Italian banking system (1965-2012), which has three interesting features: it has always been oriented toward traditional intermediation; it underwent a significant process of privatization, consolidation and modernization; and it proved to be very robust when the financial crisis took place. However at present, both RoAs and RoEs have reached the low levels of previous troughs. In a sense, the Italian banking system seems to be back to square one. Our analysis shows that the most important driver of profitability has been the decline of the margins since the late 1980s and that a reversal of this trend does not seem likely in the foreseeable future. Consequently, future rebounds in profitability can only come from significant actions of rationalization, which do not seem to have been delivered during previous merger waves.

1 This article enriches, modifies and updates a previous study, which was part of the overall research report “Euro shocks and the Italian banking system” organized by the Rosselli Foundation and published yearly by Bancaria (Italian Banking Association). We wish to thank Prometeia for providing the data; Sara Emiliani, Teresa Sardena and Emanuele De Meo for excellent research assistance, and Andrea Enria, Andrea Resti, Andrea Sironi, Angelo Tantazzi and Lea Zicchino for helpful comments.
1. Foreword

The financial crisis has brought the long-term profitability of the banking industry to the fore and raised many questions. These include, how have the structural changes of the financial markets over the past 50 years (liberalization, globalization, innovation, and for the euro area countries, monetary union) changed banks’ profitability? Was there a substantial difference in terms of sustainability between the profitability of the traditional intermediation business (utility banking in Lord Turner’s definition [Turner Review (2009)] and the investment banking business? Were the profits recorded in the run up to the crisis only a mirage [Haldane (2009)]? And from a forward-looking perspective, what are the implications for future levels of profitability?

The crisis has shown the flaws of many business models that banks adopted during the long phase of credit expansion and innovation. Victims can be found both in banks that relied too much on risky trading activities, as well as those whose retail banking model was compatible only with the rosy scenario of eternal growth and limitless availability of liquidity.

The Italian banking system is an interesting case in point: historically, it has focused on the traditional intermediation between households, companies and – on a smaller scale in the last decades – the public sector. Even the international expansion of its two leading banks has been mainly based on acquisitions of retail banks, particularly in East European countries. In the 1990s, it also underwent the passage from public to private ownership along with a significant consolidation.

Italian banks proved to be among the most sound at the onset of the crisis: only a few of them had to ask for state-guaranteed bonds and for small amounts (both in absolute terms and relative to their size). But as the crisis continues, with the end, at least for the periphery of Europe, still some way away, some certainties have begun to falter. It is, therefore, interesting to look at the long-term evolution of the profitability of the Italian banking system as a typical example of the effects of the profound changes of the last decades on the traditional intermediation model and also as a case in point of the challenges that European banks must learn to manage in the foreseeable future.

An implicit hypothesis of a study on aggregate banking profitability is that in each country, there are idiosyncratic market drivers of the general trend of both revenues and costs that are among the major constraints impacting individual bank’s strategic choices. As a consequence, the average trend of profitability is a major determinant, perhaps the most important one, of margins for any bank.

Our analysis is based on a reliable long-term database of the main indicators of profitability for the entire Italian banking
system, thanks to the data provided by the Bank of Italy since the mid 1960s, a wide body of previous research [Passacantando (1983), Onado (1986), Angeloni et al. (1999), Albertazzi and Gambacorta (2009)] and the statistical database used by Prometeia for its analysis and forecasts of banks’ profitability (Prometeia, Analisi dei bilanci bancari and Previsione dei bilanci bancari).

The paper is organized as follows. The next section reviews the stylized facts and data on the evolution of the Italian banking system, providing a snapshot of today’s characteristics. Section 3 examines the long-term trend of the main margins, while the following section focuses on the two main indicators of gross profitability: net interest income and net income. Section 5 deals with the cost structure and operating efficiency. Section 6 focuses on the items below gross operating profit and, in particular, on loan loss provisions and on the two main indicators of the overall profitability, namely return on assets (RoA) and return on equity (RoE). Section 7 looks at some indicators of profitability for the major groups of banks by asset size. Finally, conclusions and implications for future prospects for the Italian banking system are presented in Section 8.

2. The Italian banking system: a few stylized facts

It is worth remembering the main characteristics and the long-term trend of the Italian economy and its financial system.

A. An economy with many contradictions

Italy’s growth rates were amazingly high in the first 15 years after World War II (the so-called Italian miracle) and then declined, particularly in the past two decades (Figure 1). The inflation rate (measured by the consumer price index) shows a reverse V-shaped pattern: prices soared after the first oil shock and remained high (and above the average for advanced countries) throughout the 1980s. It also explains the gap with real growth. The following decades were dominated by the financial crisis of 1992, which led to the heavy fiscal adjustment of the following years, and that opened the path to the admission of Italy to the monetary union in the first phase (1998).

After the first oil shock, Italy experienced an inflation wave, which was longer and more severe than other industrialized countries. The country’s growth model based on rising prices and continuing devaluation, public budget deficit and rising Government debt was interrupted only at the beginning of the 1990s (in the aftermath of a major currency crisis) when Italy strived to meet the conditions to enter the monetary union, to which it was eventually admitted in 1998 (Figure 2). In the run-up to the admission, interest rates converged rapidly toward other countries’ levels.
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The Italian production structure is heavily export-oriented; hence, the long inflation wave (which was significantly higher than in other countries) led to successive devaluations of the lira (Figure 3). Each devaluation restored the competitiveness of the Italian export industry and led to significant surpluses of the current accounts balance. In the recent past, the trade balance turned negative again, as the monetary union did not allow the country to offset its decreasing competitiveness with a devaluation. The effect is even more pronounced in the current account balances, which mirror the decreasing competitiveness of the service sectors, namely tourism, and the growing flow of interest payments on Italian debt held abroad.

The increasing current account deficit also points to an increasing demand for foreign capital and, therefore, for example, an increasing intermediation of international financial flows. As bank loans increased much faster than retail funding, as will be discussed below, Italian banks were forced to tap international (bond and interbank) markets, which as a result became an important source of the Italian demand for foreign capital.

Another feature of the Italian economy has been the high saving ratio, particularly of the household sector (Figure 4). However, the households’ financial surplus decreased steadily over the last decades, following a pattern similar to other countries.

B. A significant growth in the size of the banking sector, but lower than in most other European countries

Figure 5 shows a significant increase in the size of the banking system (measured by total assets) since the early 1950s. In nominal terms, total assets, which amounted to less than €500 billion at the beginning of the 1980s, trebled in a decade and doubled during the following two, in parallel with the creation of the monetary union and the international credit boom that led to the financial crisis. Figure 5 also shows the level of nominal GDP and the ratio of banks’ total assets to GDP. This measure of banks’ size, normalized by GDP, demonstrates three distinct phases: the strong recovery of the first two decades (reaching 1.5 in the mid 1970s); a slowdown in the 1970s, 1980s and early 1990s (which means that the asset growth was driven by inflation); and an acceleration in the next two decades. However, over the last few years, this has hovered around 2.5, which is much lower than major Euro area banking systems (Figure 6).

Figure 5: Total assets of Italian banks
Source: ISTAT; De Bonis et al. (2012); authors’ calculations

Figure 6: Banks’ total assets to GDP in Europe
Source: ECB, E.U. banking structures, 2010; Sweden has been included in the figure in order to have a country that experienced a heavy financial crisis in the 1990s.

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Another feature of the Italian economy has been the high saving ratio, particularly of the household sector (Figure 4). However, the households’ financial surplus decreased steadily over the last decades, following a pattern similar to other countries. Nevertheless, Italian households’ financial wealth, at the end of the period, is higher, as a percentage of GDP, than that of the other advanced countries [De Bonis (2007), Bartiloro et al. (2008)].

B. A significant growth in the size of the banking sector, but lower than in most other European countries

Figure 5 shows a significant increase in the size of the banking system (measured by total assets) since the early 1950s. In nominal terms, total assets, which amounted to less than €500 billion at the beginning of the 1980s, trebled in a decade and doubled during the following two, in parallel with the creation of the monetary union and the international credit boom that led to the financial crisis. Figure 5 also shows the level of nominal GDP and the ratio of banks’ total assets to GDP. This measure of banks’ size, normalized by GDP, demonstrates three distinct phases: the strong recovery of the first two decades (reaching 1.5 in the mid 1970s); a slowdown in the 1970s, 1980s and early 1990s (which means that the asset growth was driven by inflation); and an acceleration in the next two decades. However, over the last few years, this has hovered around 2.5, which is much lower than major Euro area banking systems (Figure 6).

2 Data recently provided by Istat (not shown in Figure 4) tell us that it was not until 1952 that banks had recovered from the catastrophic effects of WWII, once again reaching their 1939 levels.
In summary, the growth of Italian banks can be divided in three periods: (i) the strong recovery during the “Italian miracle”; (ii) the big inflationary wave (iii) the years of the monetary union.

It is worth stressing that in real terms the last decade has seen a remarkable acceleration of the ratio of total assets to GDP, but this phase of “financial deepening” did not coincide with a period of strong economic growth. Finally, in those years, the two major banking institutions made important acquisitions abroad, which increased their total assets (the foreign component of total assets is not included in the data of Figure 5).

C. An extraordinary effort of deregulation and privatization, prompted by the Bank of Italy since the 1980s

At the beginning of the 1980s, the Italian banking system had three main characteristics: (i) it was publicly owned: almost 80% of banks were either government-owned or public bodies (they included the savings banks, Banco di Napoli, Banco di Sicilia, Istituto San Paolo di Torino, Monte dei Paschi di Siena, and all of the institutions specialized in long-term lending); (ii) it was heavily regulated by the Banking Act (1936), which created many segmentations (between short- and long-term lending; between bank categories), posed strict limits on branching and gave strong administrative powers to the Bank of Italy and (iii) monetary policy relied on administrative controls instead of open market operations.

In the 1970s, administrative constraints (vincolo di portafoglio) made it mandatory for the banks to invest a significant part of their deposits in bonds issued by “istituti di credito speciale” (public bodies specialized in long-term credit), while loans were subject to severe credit ceilings (massimale). During this period, Italian banks were less enterprises responding to market incentives than the “chain of transmission” of a monetary policy aimed at facilitating the smooth refinancing of the public deficit. Moreover, controls on foreign flows of capital and holdings by residents of foreign-denominated assets were enforced for most of those years.

The picture changed dramatically during the 1980s thanks to the debate on the public banks prompted by the Bank of Italy, the gradual lifting of administrative controls and successive amendments to the Banking Act. As for banks’ ownership, the breakthrough was the reform approved at the beginning of the 1990s (the so-called Amato Law) under which public banks’ assets and liabilities were transferred to newly created joint-stock companies (therefore, of private nature) and the ownership of the capital was attributed to a foundation (the so-called Fondazioni bancarie). Then, the foundations were pushed to sell a significant part of their holdings, thus favoring the enlargement of the shareholder base. Meanwhile, as a consequence of the implementation of European directives, the banking legislation and regulation were gradually changed, abolishing the many forms of segmentation of the previous Banking Act.

D. A traditional business model, based on deposit-loan intermediation

The importance of the traditional intermediation is shown in Figure 7. The share of loans to total assets follows two completely different trends. First, during a long phase of continuous decline, banks were supporting the bond market through direct acquisitions of government bonds and securities issued by credit institutions, while loans were subject to severe credit ceilings. At the end of the 1980s, administrative controls were lifted and since then, the importance of loans in the overall portfolio has continuously risen. At present, Italy has one of the highest ratios of loans to total assets among the European banking systems, lower only than Spain and the U.K. among the large countries.
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(Figure 8). At the same time, a wide body of literature shows that customer relationship has been significantly strengthened as a consequence of the process of consolidation [Bonaccorsi di Patti and Gobbi (2001, 2007)].

In recent years, loans have grown at a much faster pace than the traditional retail sources of funding (particularly deposits). As Figure 7 shows, the ratio of loans to deposits, which was about 100% at the beginning of the 1990s, jumped to 177 in the run up to the financial crisis. It has fallen since the crisis to 143. The funding gap of the Italian banking system is therefore significant, as in most European countries. However, Italian banks sell a large quantity of bonds to their retail customers, at prices that are much cheaper than those offered to institutional investors. Sadly, available data do not allow for separating the retail and wholesale components of bond issues.3 The gap between the ratio of loans to funding sources (loans to total amount of deposits and bonds) has widened in recent years, reflecting a heavy reliance of Italian banks on issuance of securities. At the peak (2012), bonds were equal to almost 55% of the total loan portfolio (or 44% of total funding sources). The retail funding gap proved to be “one of the most important sources of banking sector vulnerability throughout the financial crisis” [ECB (2011)].

E. A significant strengthening of the capital base

Capitalization, as measured by the ratio of capital to total assets, is one of the key features of a banking system. In countries where long-term series are available, it has been shown [Alessandri and Haldane (2009)] that capital declined steadily since the 19th century, reaching its lowest levels by the end of WWII. Since then it has hovered around 5% (Figure 9). In other words, the last three decades, characterized by the implementation of Basel rules on capital adequacy, could only align the growth of capital with the extraordinary growth of total assets. Comparable data are not available for Italy for such a long period. Istat has provided a series since Italian unification (1861) for capital, loans, securities and real estate. Using the sum of the last three data as a proxy for total assets, the capitalization shows a sharp and steady decline from 1861 to 1950 and then a strong rebound [Onado (2012)]. However, this estimate suffers from the heroic assumption that the other components of bank balance sheet remain constant and is therefore not homogenous with the series used for the U.S. and the U.K. Moreover, it must be taken into account that Italy had a long tradition of publicly owned banks, where the equity protection was less significant. Consequently, we have included in the graph the capitalization ratio for Italy since the early 1950s.

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3 According to an estimate by Goldman Sachs (2011), by mid 2011 retail bonds represented 40% of total bonds issued by the top 8 Italian banks (the percentage being lower for the two largest banks).
During the 1950s and 1960s, the Italian banking system was much less capitalized than its Anglo-Saxon peers. Since then, however, it underwent a long phase of playing catch-up. By the early 1990s, levels of capital within the Italian banking sector were more or less in line with those of the U.K. and U.S. Even after this period, Italian banks’ capital continued to grow faster than total assets, so much so that in recent years Italian banks had significant higher levels of capital than their American or British peers.

F. A significant concentration process
Thanks also to the privatizations, the last 20 years have seen a strong wave of mergers and acquisitions. The number of banks declined significantly, from more than 1,100 in 1990 to slightly above 700 in 2012, albeit at a slower pace than in Germany and France (Figure 10). Nevertheless, concentration measures (the Herfindahl index and the market share of the five largest institutions) are significantly lower than in other European countries, excluding Germany (Figure 10). The concentration has pushed leading Italian banks up the international banking league tables, with Unicredit and IntesaSanpaolo being ranked 23rd and 28th, respectively, in 2011.4

3. Profitability from a long-term perspective: a bird’s-eye view
In this section, we look at the long-term trends of the major banking margins, with a deeper analysis in the following sections. We adopt the traditional definition (OECD 1979–2010) of the main components of banks’ profit and loss statements (see Box 1 for a brief description).5

Figure 12 presents the long-term trend for the four main margins since 1965. The main points to be stressed are:

- Net interest margin follows two different patterns: one of high and fluctuating margins (1965–90), and one of continuous decline in the last two decades. For a system strongly orientated toward traditional intermediation, this means a

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4 According to Top Banks by assets 2011, Unicredit is in 23rd position and IntesaSanpaolo in 28th. (http://www.relbanks.com/worlds-top-banks/assets-2011); in Bankscope global ranking, Unicredit is ranked 23rd and IntesaSanpaolo 32nd.

5 As in the prevailing literature, we use total assets as the variable of scale to measure bank output. This measure is far from flawless: (i) it is a spurious mix of book and mark-to-market values, depending on accounting standards; (ii) it is unconsolidated, therefore it can be inflated by assets that would be cancelled if we would add up individual figures as in a consolidation process; (iii) its composition varies over time, therefore, the underlying risk is not constant. Having said that, it must be recognized that it is very difficult to find an alternative to total assets as the denominator of profitability ratios. For a system heavily orientated toward traditional intermediation, one can use items strictly connected to this business, namely loans and deposits (for example, the sum of the two). However, this indicator seems to follow rather strictly the pattern of total assets; the correlation ratio between the two series in our sample period is 0.997.
structural and long-term deterioration of the profitability of the basic business model.

- The trend for net income is rather similar. In particular, the graph shows the steady decline during the last decade. In other words, non-interest income (the distance between the two curves) increased significantly, but not enough to compensate for the long-term decline in interest margins.

- Gross operating profit (before provisions) – a measure of gross profitability that is not influenced by the cycle of credit losses – fluctuates over the period around a long-term average of about 1.5 and declines markedly since the beginning of the new millennium.

- Profit before taxes (PBT) – a measure of gross RoA, which is not influenced by the rate of taxation – experienced two ascending trends (1974-1991 and 1994-2007), interrupted by two major crises. In each cycle, the decline brings the overall profitability to the starting level. Moreover, both in 2011 and 2012 the bottom-line result of the entire banking system has been a loss. The first positive trend was caused by the inflation shocks of the 1970s and 1980s, while the second was brought about by the monetary union and the restructuring of the banking system. Both were interrupted by a recession linked to monetary causes (the currency crisis of the early 1990s and the European crisis with a sharp increase in Italian interest rates). The net result is that at the end of the period, the gross profitability of Italian banks seems to go back to square one and has recorded for the first time in recent years two consecutive years of net losses.

4. The components of gross profitability: NIM and NI

4.1 The overall trend of NIM

The Italian banking system has seen a long and positive interest rate cycle during the 1960s and 1970s, i.e., in the years of high inflation and high interest rates, which determined a real “intercept jump” of the level of interest margins [Onado (1986)]. The highest level was achieved in 1975 (3.9%), with minor fluctuations during the 1980s; in 1990 NIM still stood at 3.7%. Since then, the decline has been continuous. From 1991 to 2011, with the exception of 2006, NIM fell every year. In one decade, it lost more than 160 basis points, reaching 1.9% in 2000; another 90 basis points were lost in the following decade, dropping to 96 basis points in 2012, the lowest level for the entire period. The final margin is equal to only 30% of the peak reached 30 years earlier. Not surprisingly, the era of declining inflation and declining interest rates (thanks to the monetary union in the last two decades) has profoundly affected the basic profitability of the Italian banking system, leading to a constant decline of interest margins.
Moreover, no significant differences can be seen before and after the financial crisis that began in 2007. In particular, Italian banks did not benefit from the sharp and continuing decrease of interest rates coupled with a deepening of the yield curve. We will elaborate on this point in next section.

4.2 The determinants of interest margins: NIM, mark-up and mark-down on market interest rates

NIM is obviously strictly dependent on lending rates \( (r_L) \) and deposit rates \( (r_D) \) and on their difference, the spread. As our data cover the entire period, it is interesting to analyze the traditional relationship that expresses the spread as the sum of a markup \( (r_L - r_M) \) and a markdown \( (r_M - r_D) \) to a short-term market rate \( r_M \).

As Figure 13 shows, the spread increased significantly in the period of high inflation and high interest rates, reaching its peak at 15 percent in 1981. The decline was then almost uninterrupted; in 1990 it was still above 10%, but by the turn of the millennium it had reached about 5%. In 2012, the latest available figure, the spread was 4.7%, which is a third higher than the record level reached 30 years ago. In other words, the price component of interest margin has been dramatically reduced.

The decline of the spread was accompanied by a significant change in the balance between the mark-up and the mark-down. Until the late 1990s, the latter made a significant contribution to the short-term spread, accounting for about 60% in the 1970s to less than 50% in the 1980s. In the last 20 years, the deposits markdown contribution to the short-term spread kept declining: before the crisis, it was less than 40% of the total and in the last two years it ranged from 10% to 15%.

The reason must be found in the low level of market interest rates (which puts a floor to the markdown) and in the more competitive conditions of banking markets in the last decades. The net effect is that in the present market environment, borrowers (both households and companies) contribute almost entirely to this component of the profitability of the Italian banking system.

Net interest margin (NIM): is the difference between interest income and interest expenses, i.e., a proxy for the income generation capacity of the business of intermediating between depositors (and other providers of funds) and borrowers [ECB (2010)].

Net Income (NI): equals NIM plus non-interest income or other income (NII or OI, i.e., net fees, net commissions, net profit or loss on financial operations and other net non-interest income). The revenues included in this margin are, therefore, of a mixed nature: some are strictly related to traditional intermediation (e.g., commissions linked to payments, deposits and loans); some are determined by the provision of financial services to households and companies (selling securities to the final investors, financial advice and generally speaking services typical of the investment banking business); and some are related with the mark-to-market of the portfolio of securities held by the bank. Unfortunately, available statistics do not allow for disentangling these three components.

Gross operating profit before provisions (GOP): equals NI minus operating expenses (staff costs; property costs and other operating expenses). The ratio of operating expenses to NI is also called cost-income ratio.

Profit before taxes (PBT): equals OP minus loan loss provisions, securities and other assets. PBT, minus taxes and profit (loss) from extraordinary operations equals net profit.

Total assets (TA): is the typical variable of scale to measure the size of bank activity.

4.3 The determinants of interest margins: macro variables and market rates

Given the importance of interest margins in determining the long-term profitability of Italian banks, it is interesting to further investigate the determinants of NIM.

With regards to the impact of interest rates, Albertazzi and Gambacorta (2009) find that the coefficient for the money
market rate is close to zero. This result corroborates those of Demirgüç-Kunt and Huizinga (1999) and Casolaro and Gambacorta (2005). On the other hand, the coefficient for the long-term interest rate turns out to be positive and significant: if the long-term interest rate rises by 1 percentage point, the net interest margin is expected to increase by more than 1% in the first year and by almost 4% afterward. The different impact of short- and long-term interest rates on net interest income is due to the maturity transformation typical of banking.

More recently, the ECB has estimated the elasticity of the interest income of banks in the euro area to short-term market rates for the period from January 2003 to December 2008 [ECB (2009, box 13)]. The results are particularly interesting and can be summarized as follows: (i) the impact of short-term market rates is stronger on loan rates than on deposit rates; (ii) the standard deviation of the estimated coefficient is however quite high (loan rates’ elasticity varies between 0.05 and 0.60, while deposit rates’ between 0.06 and 0.42); (iii) there is a marked difference between countries whose banks offer predominantly long-term fixed loans (Belgium, Germany and France) and those, such as Italy, with predominantly floating rates and short-term lending (in the first group of countries, the multiplier coefficient is higher for deposit rates than for lending rates) and (iv) the overall effect on interest margins is strongly related to the funding gap, which is smaller in countries where fixed rates prevail; hence the net effect turns out to be slightly positive.

Empirical studies conducted by the Bank for International Settlements also examine the possible effects of changes in market interest rates – both the level and the slope of the yield curve – on banks’ profitability. In a 2002 empirical exercise [BIS (2002), the analysis, based on aggregate data of net interest income increases lending demand by households and firms [Friedman and Kuttner (1993), Calza et al. (2003)] and improves the financial conditions of borrowers, with positive effects on the profitability of the traditional financial intermediation activities.

Our goal is slightly different from previous research, because we are not only interested in very short-term movements (as in the ECB and BIS studies) or cyclical behavior, we are also interested in long-term and structural effects. Our analysis is performed in two steps. First, we investigate the simple relationship between NIM and short-term market rates as well as the slope of the yield curve, measured by the difference between the 10-year and the 3-month money market rate.

... (0.258) and the slope of the yield curve (0.641 the coefficient to slope of the 0–2 years yield curve).
We estimate the relationship looking at the NIM elasticities, i.e., the percentage change of the NIM in relation to a given change in market rates according to the following specifications:

\[ \text{NIM}_t = \alpha_t + \beta t \cdot \text{MR}_t + \eta_t, \quad \eta_t \sim N(0, 1) \]

\[ \text{NIM}_t = \delta_t + \gamma_t \cdot (\text{LR}_t - \text{MR}_t) + \epsilon_t, \quad \epsilon_t \sim N(0, 1) \]

where \( \text{MR}_t \) is the short-term money market rate at time \( t \) and \( \text{LR}_t \) is the long-term interest rate at time \( t \); \( \alpha_t \) and \( \delta_t \) are constant – which are estimated at each time \( t \) – and \( \eta_t \) and \( \epsilon_t \) are random errors, which are normally distributed with zero mean and standard deviation equal to 1.

The two relationships are estimated separately in order to avoid collinearity problems. Figure 14 shows the results of the Kalman filter estimation on a recursive data sample of annual data (from 1970 to 2012). This technique gives us an immediate snapshot of the changes in the NIM elasticity.

Our results corroborate previous findings on the positive relation between NIM and the level of short-term interest rates; this relationship is increasing from the early 1980s showing a stronger sensitivity of NIM to money market conditions. The value of alpha captures all other determinants of NIM, including the competitive conditions of the banking markets. The increase from the early 1970s through the late 1980s and the sharp decline thereafter can be considered as the effect of a permanent increase of competition favored by the structural changes that began in the early 1980s. As far as the yield curve slope is concerned, the estimates show a negative relationship, suggesting that liabilities respond more quickly than assets to market rates. Stated differently, mainly because of the demands of depositors, Italian banks seem to perform a negative asset-liability transformation. Summing up, our results seem to point to a very unfavorable environment for Italian banks in the past decade, as both the level and the slope of the interest rate curve have had a negative impact on NIM. Our results, therefore, depict a more negative picture than the ECB analysis discussed earlier.

Since this finding could be the result of either a difference in the data or a difference in the model, we ran an estimate similar to that described in the ECB (2009), i.e., an error-correction regression of the change in the average interest rate paid on outstanding loans and deposits respectively on changes in the three-month short rate.

This second exercise allows us to further investigate the elasticity of the main components of the interest margin (rates on loans, deposits and bonds) to market interest rates and, thanks to
The error-correction model, to separate the long-term from the short-term effects of a given change in market interest rates. In fact, in an error-correction model the short-term dynamics of the variables are influenced by their distance from the equilibrium values. In particular, we estimate the following equation:

$$\Delta BR_t = a + \gamma (BR_t - \theta MR_t) + \sum_{i=0}^{\infty} \beta_i \Delta MR_t$$

where BR is alternatively the rate on loans or deposits or bonds, MR is the short-term money market rate and $\Delta$ indicates the first difference. The above equation has been estimated for a sample of quarterly data from 1970 to 2012 as well as for different sub-periods to examine whether the elasticities change over the sample period. In Table 1, we show our estimates of both short- and long-term elasticities over the different periods.

The estimates of short-term elasticities are very similar to those obtained by the ECB, when the model is estimated over the same sample period. This makes us more confident about the model and allows us to concentrate on the long run elasticities. The results on long-term elasticities show a striking difference between the first period (1970–1984), where rates rise, and the second period (1985–2012), where rates fall. In the former, loan rates reacted faster than deposit rates (1.28 versus 0.72), thereby giving a positive contribution to interest margins. In the latter, with declining interest rates, even if loan and deposit rate elasticities are lower than the previous period (1.09 and 0.53, respectively), the contribution to interest margin was negative. In particular, in the period after the introduction of the euro (1998–2012) loan rates and deposit rates elasticities were very close, with a negligible effect to interest margins.

This result can be attributed on the one hand to the low level of market rates (it is progressively more difficult for banks to cut rates when they are approaching the zero bound) and, on the other hand, to the more competitive conditions, particularly in the deposit markets. As a matter of fact, in the more recent decades, the competition has been very tough, both from nonbank sources (the government bond market, institutional investors, etc.) and within the banking system, as loans grew much faster than deposits, creating the conditions for price competition in the deposit market.

Generally, the variability of interest rates is considered per se to be beneficial to bank interest margins [Albertazzi and Gambacorta (2006). The main reason is that the speed at which changes in market interest rates are incorporated into the bank interest margin differs over time and, usually, the adjustment takes place fairly gradually. Consequently, the long run elasticity (i.e., the equilibrium elasticity in a co-integrated model) is more relevant than the short one, and the long-term trend is more important than the short-term movements. Our results show that this was not true for the Italian banking system in recent years. The long-term forces driving the decline of margins seem to have been stronger than the short-term movements in the level and slope of the interest rates curve.

4.4 Net income

Figure 12 shows that net income (NI) also declined steadily over the last 30 years, albeit at a slower pace than NIM. NI stood at 1.9% in 2012, 39% of the peak level reached in 1981 and 1986. In the last decade, non-interest revenues declined at the same pace as NIM (in 2011 they were both 54% lower than in 2001). As a matter of fact, the decline of NIM was far from unexpected (even though not for such an extended period and so uninterrupted). Italian banks were only too well aware that in the long run they should change their traditional business model, finding new sources of revenue such as trading and fees for non-traditional services. Diversification seemed sustained by the increased propensity of households to invest in financial assets other than government bonds, and by the steady development of financial markets, which widened the range of services to be offered both to companies and households [Enria et al. (1999, Albertazzi and Gambacorta (2006)].

Figure 15 shows the trend of non-interest income (NII, the difference between NI and NIM) both in absolute value and as a percentage of total assets. The nominal value increases steadily over the period: during the 1990s, the level trebled and after a pause due to the bursting of the stock market bubble, jumped again to the record level of more than €45b. The ratio of NII to total assets, which stood at 1.2% at the beginning of the 1980s, declined to 0.6 in 1991 and then increased very fast, jumping to 1.6 at the turn of the millennium, then declining to the present level around 1.0.

Figure 15 also shows the ratio of NII to NIM; this ratio hovered around 30% until the early 1990s and the jumped to 100%
by the end of the period of study. The peak was reached, not surprisingly, in 2006 (111%), the year before the beginning of the financial crisis.

Figure 16 shows a scatter diagram of two important indicators of overall profitability: the net interest margin to total asset (vertical axis) and the ratio of net income to net interest margin (horizontal axis). Each point is, therefore, a measure of net income (the product of y and x), which allows us to draw the “iso-curves” of NI (at the levels of 2.4%, 3.2% and 4.0% of total assets, respectively).

Three different periods clearly stand out: first, the 1970s and the 1980s, where we had high interest margins and a low non-interest income. The 1990s experience a significant shift to the right, but on a lower iso-margin. Finally, in the last decade, banks reached the lowest iso-margin curve, particularly after the crisis, as a consequence of the strong decline in interest margins. This is despite the horizontal axis being close to 200, which means that non-interest income is near a 1:1 relationship with interest income.

A conjecture that has been formulated in the literature [Albertazzi and Gambacorta (2006)] is that such revenue diversification is good, as it allows banks’ profits to stabilize [Saunders and Walter (1994); Lown et al. (2000)]. On the other hand, other studies stress that traditional intermediation activities remain the core business of most profitable banks in the U.S. [DeYoung and Rice (2004)] or argue that a higher proportion of non-interest income increases the volatility of bank profits [DeYoung and Roland (2001), Stiroh (2004)].

Our analysis shows that Italian banks’ non-interest income grew

\[
\Delta BR_i = \alpha + \gamma (BR_{i-1} + \beta MR_{i-1}) + \sum \delta_i \Delta MR_{i-1} + \varepsilon_i
\]
steadily – perhaps even more than expected – during the last three decades, as shown by the shift to the right on the horizontal axis of Figure 16. This was stimulated by the developments in the financial markets (which created great opportunities for widening the range of services offered to households and companies) rather than by a transition to an investment banking model or a universal banking model [CEPS (2011)]. The net result is that the diversification of revenues took place, but the expected stabilization of profits did not materialize.

5. Operating costs, operating profits and overall efficiency
A large component of the NI of a bank are absorbed by administrative costs (staff and other), which are significant, particularly in the retail business which is at the same time both labor (staff) and capital intensive (branch network and technology).

The operating profit of a bank can be measured both before and after loan loss provisions. Of course, only the latter can be considered a proxy for the overall profitability of the business in a given year, but as data for provisions are available only after 1974, we will initially refer to gross operating profits. This margin, being independent of the cyclical component of credit risks, reflects the basic profitability of the business and is, therefore, a better indicator of economic efficiency than other proxies, such as the cost-income ratio. The gross operating profit (GOP) is shown in Figure 17. GOP has experienced two long-term trends: an increase between 1965 and 1981 (from 0.9 to 1.9) and a decline ever since. These trends are interrupted by sharp cyclical movements with peaks in 1981, 1986, 1993 and 2001. Only 2012 shows a modest rebound. Since 2001, the decline has been constant, and by 2012 GOP had reached 0.63, 33% of the peak level of 1981 and 39% of the levels reached only 10 years earlier. In other words, the decline of gross margins was not counterbalanced by a corresponding decrease in operating costs.

To investigate efficiency issues of the banking system further, we analyze operating cost margins using two traditional indicators of relative efficiency: the ratio of operating costs to total assets (a proxy for the size of the banking system) and the ratio of operating costs to net income (a measure of economic efficiency, the so-called cost-income ratio). As demonstrated in Figure 18, operating costs fluctuated around 3.0 of total assets until the early 1990s, then declined sharply to 1.5.

From this point of view, the gains in efficiency of the last two decades seem remarkable. The starting point was 3.3 in 1965 and in 1990, it stood still at 3.1. But in 10 years, it declined to 2.0, and reached 1.2 in 2012, the lowest level of the entire period. One can, therefore, deduce that the consolidations that took place during this period had apparently allowed for
significant economies of scale and scope. On the other hand, the other measure of efficiency, the cost-income ratio, does not show such a decline. It fluctuated around 70% until the 1990s and around 60% in the following decades, but in 2012, thanks to the first improvement of an entire decade, it is still at the same level as the early 1980s. Of course, both ratios shown in Figure 17 are very rough proxies of efficiency. Total assets are not the best measure of bank production, and therefore, the ratio of total costs to total assets cannot be considered a sound measure of unit costs. On the other hand, the cost-income ratio is influenced by the size of the denominator, which depends on market factors and in particular on the level of interest rates.

The overall picture that emerges from Figure 18 is that Italian banks have reached efficiency with respect to the scale of activity. However, over the long period of declining margins, operating costs proved rather rigid. As a consequence, as of 2012 operating costs still absorb two-thirds of gross operating profits.

One can, therefore, ask whether there are still areas of inefficiencies in the Italian banking system. The answer cannot be obtained from the aggregate data we have used so far. However, in this particular case an international comparison can help, as operating costs depend also on a series of structural factors for which we have comparisons [ECB (2010)].

If we look at Table 2, we can observe that:

- The Italian banking system has doubled the number of branches since 1990, in sharp contrast to other banking systems. Even if this is due to the late liberalization, the difference is striking. It must also be stressed that based on past history, financial crises are always followed by significant restructurings.
- Looking at the right part of the table, Italy shows significant symptoms of overbanking in relation to three main indicators: branches’ total assets (size of the production unit); GDP (size of the underlying economy); and population. Only Spain looks more overbanked than Italy.
- With the expansion of branches, the number of employees has significantly increased, with negative effect on productivity, as measured by total asset per employee. Italy also has a low number of employees per branch (9.7, higher only than Spain, in contrast with an average of 12.9 for euro area and 14.5 for the E.U.). This seems to point to a wider diffusion of mini-branches, aiming to maximize the density of the branch network.

These result might at first seem surprising, given the strong consolidation of the last decades. Where have the alleged synergies gone? The answer is that mergers in Italy are typically undertaken with the aim of boosting revenues rather than cutting operating costs. Perhaps to soften the opposition in local communities, the strategic plans have always stressed the

<table>
<thead>
<tr>
<th>Country</th>
<th>Branches 1990</th>
<th>Branches 2009</th>
<th>Var %</th>
<th>Asset per branch</th>
<th>GDP per branch</th>
<th>Population per branch</th>
<th>Asset per employee</th>
<th>Employees per branch</th>
</tr>
</thead>
<tbody>
<tr>
<td>U.K.</td>
<td>762.2</td>
<td>126.5</td>
<td>126.5</td>
<td>4,997.3</td>
<td>20.0</td>
<td></td>
<td>38.1</td>
<td></td>
</tr>
<tr>
<td>Germany</td>
<td>39,576</td>
<td>37,289</td>
<td>-5.8%</td>
<td>188.4</td>
<td>61.1</td>
<td>2,077.4</td>
<td>16.1</td>
<td></td>
</tr>
<tr>
<td>France</td>
<td>26,124</td>
<td>38,158</td>
<td>46.1%</td>
<td>186.0</td>
<td>49.6</td>
<td>1,676.1</td>
<td>11.0</td>
<td></td>
</tr>
<tr>
<td>Italy</td>
<td>16,772</td>
<td>33,974</td>
<td>102.6%</td>
<td>108.5</td>
<td>44.7</td>
<td>1,770.6</td>
<td>9.7</td>
<td></td>
</tr>
<tr>
<td>Spain</td>
<td>35,234</td>
<td>44,085</td>
<td>25.1%</td>
<td>77.3</td>
<td>23.7</td>
<td>1,033.7</td>
<td>13.0</td>
<td>5.9</td>
</tr>
<tr>
<td>Sweden</td>
<td>2,469</td>
<td>2,120</td>
<td>-14.1%</td>
<td>435.3</td>
<td>136.3</td>
<td>4,350.7</td>
<td>20.9</td>
<td>20.8</td>
</tr>
<tr>
<td>M16</td>
<td>151,397</td>
<td>162,871</td>
<td>7.6%</td>
<td>166.3</td>
<td>49.8</td>
<td>1,829.2</td>
<td>12.9</td>
<td>12.9</td>
</tr>
<tr>
<td>E27</td>
<td>183.6</td>
<td>51.4</td>
<td>-72.2%</td>
<td>2,179.7</td>
<td>12.7</td>
<td></td>
<td>14.5</td>
<td></td>
</tr>
</tbody>
</table>

Table 2: Banking network and employees in main European countries
M16 = 16 countries of the monetary union; E27 = 27 countries of the European Union
Sources: OECD; ECB (2009); authors’ calculations
low level of overlapping in the branch networks (and hence in
the allocated staff), but particularly in the urban areas (chased
by all banks, whatever their size, in the years following the
liberalization) the banking presence can now be considered
redundant, predominantly because technology has decreased the
need for proximity, which has historically been the reason for the
high density of branch networks.

It must be stressed that the cost-income ratio of the Italian banks
does not seem particularly high when compared with other
euro area countries; the only exception is Spain where the ratio
dropped thanks to the very high level of gross profits (Figure 19).

6. Provisions, profit before taxes, RoA and RoE

Provisions are obviously a major component of the banking
business, so the indicators of profitability considered so far can
lead only to rough conclusions about the overall profitability
of the banking system. Provisions and losses (always as a
percentage of total assets) show wide fluctuations, mainly
determined by the economic and credit cycles. As Figure 20
demonstrates, the ratio of provisions to total assets peaked in
1981, the mid 90s and in 2012. These peaks reflect the three
main shocks faced by the Italian economy: the increase in oil
prices and inflation (with heavy structural consequences for
major Italian industries); the devaluation of the lira coupled with
the emergence of huge losses in the banks of Southern Italy; and
the financial crisis.

It is worth stressing that provisions as a percentage of total
assets (and therefore of the loan portfolio) peaked only in 2011
and 2012, a few years after the crisis erupted. Although the
slowdown of 2010 could have been caused by an underestimation
of the overall risks of the new environment (using provisions as
a buffer to smooth the decline of gross profits) the trend shows
that in the three years after the crisis, the quality of the Italian
banks’ loan portfolios were significantly better than in previous
crises. However, the picture changes dramatically in 2011: the
duration of the crisis (coming after a long period of sluggish
economic growth) coupled with the contagion to Italy of the
peripheral Europe difficulties, has brought the ratio of provisions
to total assets to a record level for the entire period. But due to
the decrease in gross profitability, provisions now absorb more
than 70% of net income, more than twice the level of every single
year of the entire period.

As a result, the combination of the cycle of operating profits
with the cycle of provisions, leads to two rising trends of profits
before taxes, abruptly interrupted by the recessions of the
1990s and the current one (Figure 21). Not surprisingly, 2011
and 2012 show negative values. As this measure is the best
proxy of banks’ return of assets (Haldane (2009)), we can say
that in each period profitability seems to revert to the value
of the beginning of the cycle and that the two worst years
of the financial crisis (2011 and 2012) have brought overall
profitability (RoA) to negative level, for the first time in the
recent history of the Italian banking system.8

The financial crisis has led to a decline in RoA by 90 basis point in
only five years. As far as the basic profitability is concerned, the
financial crisis seems to have once more pushed the RoA back
to where it was a few decades ago, even if one considers 2011
figure as exceptional (the 2010 figure is 70 basis points lower
than 2007). In other words, the impact of the crisis on overall
profitability seems to have been particularly severe in Italy. Figure
21 also shows profits after taxes (PAT). Interestingly enough,
the distance between the two curves (the “fiscal wedge”) has
narrowed in recent years. PAT is also the best indicator of the net
profitability of the business. As the graph shows, the financial
crisis marks the end of the second cycle of profitability, with levels
in 2009–10 being very close to the troughs of the mid 1970s
and mid 1990s, and the negative values in 2011 and 2012 never
having been seen before.

Before the crisis, the return on equity (RoE) was considered the
best gauge for banks’ profitability. The crisis has shown that
a measure that does not take into account the level of implied
risk, is fundamentally flawed ([ECB (2009), Haldane (2009)].
For our purposes, the indicator keeps its importance, even if
many caveats must be taken into account. First of all, the Italian
banking system, unlike others, did not have significant amounts
of “hidden risks” due to toxic assets. Second, RoE measures the
capacity to reward the shareholders (particularly significant in a
completely privatized system) and to generate internally capital
resources.

8 The data shown in the graph do not include the impairment of intangible assets. Including
the significant devaluation of the high goodwill embedded in the mergers during the long
concentration phase, in 2011 the aggregate value of RoA was -0.6%.
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Figure 22 shows the RoE (expressed as the ratio of PAT to capital and reserves) and RoA (after taxes) since 1974. The former shows significant fluctuations over the period. Also in this case, the troughs are determined by the crises of the early 1990s and the current one. It is worth stressing that in the four years prior to the crisis, the average level of RoE was around 10%, quite low based on international standards (even if one has to take into account the high level of Italian taxation) and not far from the levels of the 1980s. Moreover, the average for the years since the crisis (2008-12) is close to zero, with negative values registered in the last three years. The levels reached in the last three years is only slightly above the levels reached during the crisis of the 1990s.

It is clear that RoE and RoA have become decoupled, mainly because the leverage of the Italian banking system decreased substantially over this period. Unlike other financial systems, and in particular the U.S. and the U.K. (Alessandri and Haldane (2009)), leverage decreased significantly in Italy, from 50 to 15, predominantly due to the regulatory pressures from the Bank of Italy to increase the robustness of the banking system. Not surprisingly, the results for RoE have not been as outstanding as in other countries where banks were allowed to significantly increase their financial risk.

It is interesting to decompose the RoE into a profitability effect (RoA) and a leverage effect, according to the usual proxies. The result are shown in Figure 23, where changes in the RoE (net profit) have been decomposed into four elements: RoA, leverage,
provisions and taxation. The periods reflect the main phases of the RoE cycle. We find that leverage contributes negatively to RoE in all periods, but it appears that the more pronounced movements are determined by provisions and surprisingly (particularly in the fourth period (1998–2007) positively by taxation. The latter seems to be attributed to the tax effect of provisions. It is also interesting to stress that changes in RoA were never the most important factor. However, since changes in RoA normally have the same sign as provisions (with the exception of the first period), the net effect on RoE is normally amplified. Bearing in mind that the markdown of the deposit rates no longer gives a positive contribution to profitability, the net return of the loan portfolio is now the main driver of the return to shareholders.

7. A look at disaggregated data

Our analysis is based on the hypothesis that the aggregate profitability of a banking system is an important indicator of the general trend of the market and, therefore, a main driver (or at least a constraint) for individual banks’ profitability. However, given that in the last two decades the Italian banking system underwent an important process of restructuring and consolidation, it is worth looking also at disaggregated data, drawing on Prometeia’s database on main groups of banks by asset size (Table A1 in appendix). The data are comparable only to a limited extent to those used so far, as ours are unconsolidated and refer to units operating in Italy, while Prometeia’s are consolidated for individual banks (including in particular subsidiaries operating abroad). Overall, Figure 24 shows a similar pattern for all of the main indicators. This confirms our hypothesis about the importance of the average trend and contradicts some previous empirical studies that stressed the diverging performance of large groups (De Vincenzo and Quagliariello (2005)), and therefore, the beneficial impact of the consolidation process.

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9 The RoE (net profit/equity) decomposition is based on a formula that multiplies the following four factors: RoA*= operating profit/total assets; leverage = total assets/equity; provisions = profit before taxes/operating profit; taxation = net profit/profit before taxes. In order to identify the contribution of each component to RoE, their changes were calculated using the formula d(Rt) = (Rt – R\text{CEPS})/ (Rt – 1)*100, where Rt is the ratio value in period t.
Figure 24: Main performance indicators - average of individual banks
Source: Prometeia, Analisi dei Bilanci Bancari; see Table A.1 in appendix for more details; banks are distributed on the basis of the classification included in the annual report of Bank of Italy of each year.
The following points are worth stressing:

- The decline in gross margins (both NIM and NI) is more pronounced for large banks than others. This can be attributed to the less competitive pressures felt in local markets.

- The decline of the ratio of operating costs to total assets is more pronounced for large banks, pointing to economies of scale in the consolidation process.

- The net result of the previous two points is that the difference in terms of gross profits is less pronounced than other profitability indicators. It seems that both large and small banks have the lowest levels of gross profits at the end of 2012. As small banks were the most profitable at the beginning of the period (50% more than large banks) this group seems to have been particularly hit by the evolution of the last two decades.

- In terms of operating efficiency, as measured by the cost-income ratio, the large banks have experienced the greatest improvements. The high cost-income ratios of the early 1990s can be attributed to the very low levels of profitability of a few major large banks that were later acquired by more efficient banks. The sharp decline of the cost-income ratio of large banks in the following years is, therefore, proof of the success of consolidation and of the internal solution given to the problem banks of those years. Profits of the past were somehow used to cushion against the crises of the early 1990s that most heavily impacted banks based in southern Italy. In more recent years, the four classes show very similar levels and trends of cost-income ratios, but it must be stressed that at the end the highest ratios can be found for the two extreme classes: large and small banks.

- The same ranking, albeit with smaller differences, can be seen for RoA. In this case, big and medium banks show the highest values. But for all groups, the 2012 value is the lowest of the last 16 years.

- RoE levels had been quite similar (and with similar patterns) until the financial crisis. The dispersion around the average for this series is less pronounced than for any other series. This common pattern was broken by the financial crisis. Only small and medium banks could maintain positive values for RoE after the crisis, large and big banks turned into red in 2010 and 2012.

8. Conclusions

The Italian banking system is typically retail-orientated. In a recent study [CEPS (2011)], it was found that even the two largest banks in the country fell into the retail cluster, while many other countries’ major banks were classified either as universal or investment banks. Moreover, it cannot be said that Italian banks expanded “beyond their economic and social value” [Llewellin (2012b)]. Although since the mid 1990s, the level of bank activity grew to record levels, the size of the banking system, as measured by the ratio of total assets to GDP, is still significantly below the European average.

These were the main reasons why at the beginning of the crisis the Italian banks appeared to be better off than their peers from most other countries. However, when the crisis hit the periphery of Europe, the scenario changed abruptly and the points of relative strength deteriorated rather quickly. Consequently, even for a retail-orientated banking system, the crisis will prove to be “transformational” [Llewellin (2012a)].

At least for the first two decades of the near half century covered by our research, the Italian banking system was strictly regulated and enjoyed the typical contradictions of a protected market: it was barely competitive, essentially domestic and far from efficient [Enria-Focarelli-Landi (1999)]. On the other hand, it was also very profitable, in terms of net income, even though a large part of the gross profits was absorbed by operating costs. The combination of high margins and high costs led to returns on assets that were not significantly different from other banking systems. In a nutshell, the quasi-rents, made possible by oligopolistic conditions created by a strict regulation, were absorbed by extra-costs (more administrative costs, more personnel, higher average pay or a combination of the three things) rather than being passed through to net profits.

The long phase of structural reforms, financial innovation and globalization, ending with the monetary union has profoundly changed the landscape and brought mixed results. Margins declined steadily, as a consequence of the decline in interest rates, reaching their minimum levels by the end of the period of our study. One can argue that, thanks to increased competition, the oligopolistic component of profits declined. However, our data does not allow for separating the different effects of changing market conditions on the overall profitability.
From the point of view of revenues, Italian banks proved to be very quick in moving from interest income to non-interest income. However, the latter declined (albeit at a slower pace) along with the former, so that in the end both net interest margin and net income (as a percentage of total assets) were at their lowest levels over the entire period of study and less than 50% of the peak reached in the late 1980s and early 1990s. In two decades, the gross profitability of the industry halved.

The long-term decline in the profitability of the traditional intermediation business (as reflected by NIM) is the main finding to be stressed and seems to be the Achilles’ heel of the Italian banking system today. In particular, our econometric exercises have shown a significant elasticity of interest margins to market rates, which is very bad news in a long period of declining interest rates. On the one hand, the deposit component of the spread became even negative when rates approached the zero bound while the sensitivity of the loan component was heightened by the large diffusion in Italy of short-term loans or variable rate long-term loans. This preference is due both to demand and supply factors. At any rate, in the Italian banking system the duration of the loan portfolio is very low and banks are exposed (more than in other countries) to the downside effects of declining interest rates.

Moreover, loans – particularly since the advent of the euro – grew much faster than deposits, creating a large funding gap, and therefore exposing net interest margins to the fluctuations of market interest rates, which have been significant since the start of the financial crisis.

The problem was barely noticed during the initial years following the monetary union, because of the “anesthetic effect” coming from two factors: the capital gains on the government bond portfolio and the high level of fees that could be extracted in a period of booming markets (commissions on asset management being the most important example). Particularly in the 1990s, but also for a period afterward, the portfolio of government securities was a sort of “dowry” that benefited the profit and loss account, but disappeared thereafter.

The crisis has completely changed the landscape and, in a sense, has put the engine into reverse gear: the funding costs soared, the government bond portfolio generated losses instead of profits and the level of commissions was kept down by the low level of economic activity and the depressed conditions in the financial markets. Italian banks (unlike their international peers) did not record “fake” profits coming from the bubble conditions of the credit markets (something which is close to selling out-of-the-market options) but probably underestimated the cyclicity of some components of non-interest income.

It must be stressed that our analysis ends with the exceptional conditions of 2011 and 2012. In those years, Italian banks recorded significant losses on the trading portfolio of government bonds (particularly in 2011) and a significant increase in their funding costs, partially compensated by the wide use of ECB lending facilities. The net effect is that both net interest income and net income significantly declined in comparison to the previous years.

The silver lining of the present decline in margins is that the previous years’ depressed level of non-interest income also has a significant cyclical component which will benefit the P&L in the next phase, when, hopefully, the spread on Italian government bonds will be brought down, as happened in 2012 in comparison with the previous year. From this point of view, the destiny of Italian public finances and of Italian banks are strongly connected. In case of a happy ending to the European crisis, the government bonds bought by Italian banks in recent years could prove to be a new “dowry” for future profitability, as it happened in the 1980s and in the 1990s.

However, this does not change the fact that the level of NIM, which is the primary source of Italian banks’ profitability, has converged toward the levels of other countries, even if it is still higher than others (Spain being now the only system with a significantly higher NIM). It seems very unlikely that NIM could increase in the future, even in the favorable scenario of a quick solution of the European crisis. In the foreseeable future, central banks will continue to keep market interest rates at low levels and banks now have no incentives to change their exposure to the interest rate cycle. Moreover, the loan portfolio will not increase faster than the nominal GDP. In fact, it is declining due to the ongoing credit crunch. Apart from the demand factors, there are strong supply constraints coming from the new regulatory framework (in particular Basel 3 capital and liquidity ratios) and the need to reduce the funding gap. In other words, neither prices nor quantities are likely to give a significant boost to future profitability in terms of NIM.
If Italian banks want to increase their profitability, they must therefore concentrate on the items below net income, i.e., operating costs and provisions. The former has proven itself to be rather rigid so far. Operating costs decreased as a percentage of total assets, but mainly as a consequence of an increase in the level of activity (i.e., the denominator). Not surprisingly, the rigidity has been even stronger in the years following the crisis. This seems to be one of the main points to be underlined, particularly because international comparisons show that on many accounts Italian banks are still burdened by labor and structural costs linked to branch networks that are much larger than in other countries. Our data show that the benefits of the massive consolidations of the past decades are far from being fully delivered.

The second component that will matter in the future is provisions for expected loan losses, which are outside the control of banks and basically follow the economic cycle. Our analysis has shown that during the last decade the ratio of provisions to total revenues fell to historically low levels and then soared in 2011 and 2012. The low levels of provisions in the first couple of years after the crisis (particularly in 2010) can be attributed partly to a high quality of the loan portfolio in comparison to previous crises and by special measures in support of the corporate sector (the moratorium on a large part of the loans agreed upon by the Italian Bankers Association). It seems quite likely that at the beginning of the crisis Italian banks tried to use provisions to cushion against falling profits, hoping for an immediate rebound of the world economy. Notwithstanding the sharp correction of 2011 and 2012, there is still an implicit risk in Italian banks’ loan portfolios, which could have a negative impact on future profitability. Consequently, the pressure to cut operating costs will be even higher.

Our analysis shows that in the past 45 years, the RoA (before taxes) of Italian banks has followed two wide cycles, with the 2010 level very close to the troughs of the mid 1970s and late-1990s. The 2011 and 2012 figures have been even negative. The crisis has also led to a significant devaluation of the high goodwill embedded in the mergers during the long concentration phase. The effect has been striking in 2011 and 2012 (and in particular explains the heavy losses of 2011), but in the present uncertain scenario could also continue. The beginning of the second decade of the new millennium can, therefore, be considered one of the bleakest periods in the history of Italian banks. For the reasons explained above, a new positive cycle can be driven only by a significant decrease in operating costs.

This is particularly important from the viewpoint of the implications for future profitability in terms of RoE. Our analysis shows that Italian banks’ RoE has been traditionally lower than their peers in other countries. As the level of capital has increased over the years, leverage gave a negative contribution to the RoE. The only positive and significant contribution came from taxation. This seems to be paradoxical as Italian banks have always complained about a tax burden significantly higher than their competitors. As a matter of fact, it is because of these high tax rates (and the unfavorable regime of taxation for loan losses) that changes to them can have significant effect on net profits. For example, in the late 1990s, the new tax regime for loan loss provisions boosted profitability. Until the financial crisis, the net effect was an increase in RoE, to average levels that were still lower than in other countries but sufficient to attract capital, to boost equity prices and make the mergers of those years look very profitable.

Overall, for Italian banks, RoA has been the main driver of RoE (taking into account provisions for loan losses). Consequently, RoE also experienced two cycles (albeit less pronounced than RoA). Even without taking into account the negative values of 2011 and 2012, the level of 2010 (2.99) is close to historical lows and very far from the levels reached in 2006 (11.44). It is also interesting to note that the highest level was reached in 1986 (11.73), which seems to have been the year when the “golden age” of high margins came to an end.

In the U.K., the banks’ high RoE have been proven to be a “mirage” more than a “miracle” [Haldane (2009)], the distortion being caused by the increasing leverage, higher than expected level of risk implied in the overall portfolio and by implicit subsidies [Llewellyn (2012b)]. In Italy, as we have seen, the distortion was mainly due to the cyclical components of RoA. This created a sort of myopia that led banks to take as permanent changes in profitability that were either conditional on the interest rate cycle or dependent on one-off changes in the taxation regime. With the notable exception of the trend in loss provisions, these factors are not comparable with the misrepresentation of risks that many believe is one of the main reasons for the “mirage” of bank profitability in the last decades.
Our analysis also explains why the financial crisis has so quickly changed the prospects of Italian banks. At the beginning, they were more robust than most banking systems, both from the standpoint of profitability (particularly in terms of RoA) and capitalization. The former declined very quickly, mainly because of the high sensitivity of margins (particularly through funding costs) to market rates, the deceleration in the rate of growth of intermediation and the increasing burden of loan loss provisions. On the other hand, the worsening of the crisis led the market (and the regulators) to ask for higher levels of capital.

The Italian banks’ business model, strongly concentrated on traditional intermediation, and their capital levels was a blessing when the financial crisis hit, and made Italian banks very different from others that were heavily exposed to assets whose value deteriorated rapidly (the so-called “toxic” assets). It is important to stress the strengths of the Italian banking model: traditional intermediation and prudent management (the latter to be ascribed also to the effectiveness of prudential supervision), since in other countries even banks that were dedicated to lending (the British building societies, the Spanish Cajas, the German Landesbanken) had significant difficulties when the crisis hit.

The situation of Italian banks deteriorated, and more quickly than expected, as soon as the crisis hit the government debt market, causing an abrupt rise in funding costs and so reducing an already depressed net interest margin. By the same token, the level of capital which was high, but not exceptional, at the beginning of the crisis proved to be inadequate when the deterioration of the situation led markets, the European Council and then the European Banking Authority to recommend a further injection of capital. Notwithstanding very difficult market conditions, the first (and biggest) rights issue by an Italian bank (Unicredit) has been successful (Saccomanni (2012)), and overall the entire recapitalization after the November stress-tests proved to be necessary to avoid further problems to euro area banks (EBA (2012)).

This success must also be credited to the European Central Bank, which has injected liquidity in exceptional amounts and at exceptionally low interest rates. At the beginning of 2012, Italian banks were reported to have tapped the end-2011 LTRO for €116b, with ECB refinancing representing at the time 25% of total bank bonds outstanding, or 10% of total deposits [Barclays Capital (2012)]. In other words, the present profitability of Italian banks has been sustained to a large extent (and artificially) by the extreme generosity of the European Central Bank. This will add to the pressure for a “natural” rebound of profitability, as soon as normal market conditions are restored.

All this leaves us with a major question. Is the Italian banking system a fallen angel? [Resti (1997)] Our analysis has shown the profound changes of the last 50 years and allows us to conclude that in a sense the long-term factors behind the high profits of the past have been exhausted. In the first phase, the high profitability was explained by the low competition of Italian retail bank markets (protected by heavy regulation); afterward, it was the long phase of declining interest rates and the strong increase in the overall levels of activity that had a positive effect. Both of these factors are now over.

Despite the fact that the financial crisis did not have catastrophic effects, it has brought banks’ RoA near the troughs of the previous profit cycles, even without considering the negative values of the last two years. While other banking systems are simply “climbing out of the holes they had dug for themselves” – as it has been said for the U.S. banking system (Mayo (2011)) – the problem for Italian banks is the continuous erosion of the basic source of profitability. The crisis has compounded its effects on problems that were already visible, rather than introducing an abrupt change in terms of unforeseen and unaccounted losses. So the question can be rephrased: what will be, if any, the main driver of a future positive trend in the profitability of Italian banks? Our analysis suggests that neither prices (rates) nor quantities (the level of activity) are likely to make a positive contribution. Consequently, a significant reduction in operating costs appears to be the only way to bring RoA and RoE to “normal” levels. The good news is that the present high level of operating costs gives ample room for future cuts. The bad news is that the “idyllic” environment of the past is over. Particularly in the decades before the financial crisis, banking in Italy looked like a “Pareto paradise” where all banks’ stakeholders were more or less happy: clients, employees and shareholders. In the future, Italian banks will have to choose and make tough and unpalatable decisions. Angels perhaps are still flying, but it is the Paradise that no longer exists.
## Appendix

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### Table A1: Main performance indicators - average of individual banks

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Source: Prometeia, Analisi dei Bilanci Bancari; banks are distributed on the basis of the classification included in the annual report of Bank of Italy of each year.

Notes: RoE = Profit after taxes/Capital and reserves; RoA = Gross operating profits/Total assets; Leverage = Total assets/Capital and reserves; some not significant values could be excluded from the average.
A long-term approach to Italian banks’ profitability: paradise lost?

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