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BANKS' GROSS LOANS LISTED ON THE ITALIAN STOCK EXCHANGE

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Abstract

This study focuses on the groups of banks listed on the Italian Stock Exchange.

In particular, we have chosen those listed on the sectoral index called FTSE Banks.

In this group of banks, we focused on the analysis of the Gross loans and the related Reserves for impaired loans in the period between 2005 and 2013. Moreover this study can help us understand the context and the main business in which banks operate.

Data were extracted from a database, called Bankscope, which is a database containing comprehensive information on financial companies (banks and insurance companies) in Italy.

The aim of this study is to monitor the role of Net loans for banks in terms of impact on total assets and, consequently, the trend of the reserves for impaired loans. Then in this research we would investigate also the correlation between the credits and their related Reserves of impaired loans. The Pearson correlation ratio is used in order to find a correlation between the two quantities.

Our research reveals that reserves for impaired loans will be one of the most strategic items of bank balance sheets.

Under these provisions, administrators will influence the income statement of the bank.

Our findings raise important issues on one hand on necessary policy supervision of the banking system and on the other a concern regarding gross loans with a steady increase in impaired loans and ultimately the possibility of mergers between banks for more efficiency policy risk.

Key-words: gross loans, assets, reserves, impairment, banks, Italian Stock Exchange

Track 14: General Tracks.

Introduction

Banks, like any other business, have been changing continuously with the surrounding environment. In fact, there are several inputs coming from the surrounding environment, such as production factors, constraints and conditions that, through a process of transformation, generate a series of outputs (Ferrero, 1987). Along with insurance, financial intermediaries, banks are part of the so-called "financial system" (Giovando and Venuti, 2014). The financial system connects the entire economic system through the financial reports (Onado, 2000).

The financial statements of banks presents peculiarities of composition, exposure and content that make it suitable for the specific type of business (Bocchino, 2013).

Indeed the bank balance follows an order of presentation of the items, essentially based on a policy of decreasing liquidity, with cash and cash equivalents reported as the first entry (Giovando and Venuti 2014).

Our research focuses on the analysis of loans. In fact the loans are an essential item of the balance sheet of banks, as being one of the most representative items heavily influencing both stability and profitability of this system.

Periodically, the loans are subjected to verification for possible quality deterioration (impairment), which is understood as a possible loss of value. The reasons and the circumstances in which that may lead to an impairment of the financial asset are indicated by IAS 39 (Busso, 2014).

The procedure of "impairment" requires, therefore, in accordance with the provisions laid down by the supervisory board and in line with the IAS / IFRS, to divide the credits into two large groups: exposures (the so-called "non-performing loans") and those who have not brought individually to objective evidence of impairment (performing loans or "performing").

In this connection there is a specific provision for doubtful accounts in order to show a true and fair view of the same.

Finally, to define the adjustment and the associated loss of value, we proceed by deleting the receivables for which the impairment is considered complete and definitive or devaluing (individually or collectively, depending on the method applied) claims for which it is made necessary rectification.

For these reasons, we want to analyze the amount of loans to customers and their allowances for doubtful accounts of a sample of banks listed on the stock market. The sample chosen is that of all the banks listed on the Italian stock market in the period between 2005 and 2013.

For this reason we have formulated two different hypotheses and in order to analyze the results we used the Pearson correlation ratio.

Finally we explain our conclusions. This research differs from previous studies proposed in the literature in terms of empirical analysis. First of all, the current sample is particularly representative as it includes all the companies of the bank sector, listed on the Italian stock market. In addition, the study was conducted on a part of the financial statements of the banks of the sample and analyzed over a very long period of time.

This analysis allowed us to see the changes in balance sheet items considered and let us follow the evolution that occurred in the external environment in that period. Moreover, in those years there was a deep global crisis that has particularly affected the financial sector and consequently those companies operating in our market.

There are some limits in this research: first of all we should underline that it is the first phase of a far deeper analysis on the banking system. Moreover Bankscope, the database from which we took the data, did not provide all the information required. This is the reason why we decided to use the mean of each item.

1. Literature

Many studies have been conducted to study the bank in its entirety (Koch, T. and S. MacDonald, 2007; Ossola, 2005; Giovando, 1999; Giovando, 1996). Over the years many scholars have studied the bank account (Bocchino et al 2013; Ossola, 2005) and his performance (Barros et al 2007; Berger, Allen N., 2005; Boubakri et al., 2005) and its financial analysis (Hartvigsen, G., 1992). Some researchers have analyzed the performance of the banks belonging to individual countries (Faisal et al 2015; J. Iqbal, and Raza, G., 2009; Ali, A. and Ansari, I, 2007; Barros Ferreira, and Williams, J., 2007). Recent studies have analyzed the bank in terms of international accounting standards (Dezzani et al 2014) and other specific studies are focused on a thorough analysis of the assets and liabilities of the balance transfer.

In addition other researchers have recently analyzed the impacts of the new capital requirements under Basel III on bank lending rates and loan growth. As a result higher capital requirements, raising the marginal cost of bank funding, have been leading to higher rates (Cosimano, et al., 2011; Elliott, 2009; Laeven, L. and F. Valencia, 2008).

Some studies address the banking entities have faced this moment of global crisis (Crowley, 2015; Costa N.M. and Aaron T., 2013; Avdjie et al 2012;Caprio et al, 2011). Many studies have focused on this period of financial crisis, highlighting the crucial role played by the

liquidity risk in the stability of a bank, and more generally in the financial system. Some have tried to locate the perimeter within which identify the financial risk and study of methods for good management, in accordance with the requirements of the Basel (Álvarez, Víctor Adrián, and Adrián Fernando Rossignolo 2015; Angelini, et al. 2011,).

A major study found that the systemically important banks Eurozone during the period 2007 and 2013 are well capitalized with respect to market risks, but what about the risks undercapitalized credit and counterparty (Kahlert et al, 2015).

The accumulation of reserves in the banking system of the United States during the financial crisis has increased concerns that the policies of the Federal Reserve may have failed to stimulate the flow of credit to the economy: banks, apparently, are accumulating funds instead of loan out (Keister and McAndrews, 2009).

Although credit risk is an important factor that financial institutions must cope with the determinants of bank problem, loans have been little studied.

A smaller proportion of studies focused on loans in the bank balance. In particular some scholars employ Granger-causality techniques to test four hypotheses regarding the relationships among loan quality, cost efficiency, and bank capital (Berger and De Young (1997). Other studies analyzed the trade-off between (loan portfolio) focus and diversification using a unique data set that is able to identify individual bank loan exposures to different industries, to different sectors, and to different geographical regions (Acharya et al, 2003). Some studies have analyzed the types of loans to customers and the different types of credit between different regions (Salas and Saurina, 2002).

Important studies has deepened as loan growth affect the riskiness of individual banks in many countries (Foos et al, 2010; Bushman and Williams 2012). The study notes that the loan growth leads to an increase in provisions for credit losses over the next three years, to a decrease in interest income related, and lower capital ratios. Further analysis shows that lending growth has also a negative impact on net interest income risk-adjusted. All this leads to the conclusion that the growth of loans is an important driver of the riskiness of banks.

However, none of these types of analysis was performed to Italian banking firms in the period considered. More specifically, our research considers the period between 2005 and 2013, a very long period that allows to overcome the cyclical trends in the short term, on a large sample of Italian banks, generating incremental results than existing literature from an empirical point of view. Consequently, the results provide a "snapshot" of the economic situation of the banks.

2. Methodology

The following paragraphs describe the sample and the methodology followed to conduct our research.

2.1 The sample and methods

This analysis focuses on the groups of banks listed on the Italian Stock Exchange.

In particular, we have chosen those listed on the sectoral index called FTSE Banks.

In this group of banks, we focused on the analysis of the Gross loans and the related Reserves for impaired loans in the period between 2005 and 2013. Moreover this study can help us understand the context and the main business in which banks operate.

Data were extracted from Bankscope, which is a database containing comprehensive information on financial companies (banks and insurance companies) in Italy.

We used the consolidated balance sheets of all companies and we focused on information about Gross loans, Reserves for impaired loans and Total Assets of the balance sheet of the groups of banks companies.

We want to specify that data provided in our figures all refer to the mean of the single element analyzed for the specific sector.

Table 1 shows all the Italian banks of the sample analyzed.

Table 1	Banks
	Banca Finnat Euramerica SpA
	Banca popolare dell'Etruria e del Lazio Soc. coop.
	Banca Popolare di Milano SCaRL
	Banca Popolare di Sondrio Societa Cooperativa per Azioni
	Banca popolare dell'Emilia Romagna
	Banca Profilo SpA
	Banco di Desio e della Brianza SpA-Banco Desio
	Banco di Sardegna SpA
	Banco Popolare - Società Cooperativa-Banco Popolare
	Banca Carige SpA
	Credito Emiliano SpA-CREDEM
	Banca Piccolo Credito Valtellinese-Credito Valtellinese Soc Coop
	FinecoBank Banca FinEco SpA-Banca FinEco SpA
	Intesa Sanpaolo SpA
	Mediobanca SpA-MEDIOBANCA - Banca di Credito Finanziario Società per Azioni
	Banca Monte dei Paschi di Siena SpA-Gruppo Monte dei Paschi di Siena
	Unione di Banche Italiane Scpa-UBI Banca
	UniCredit SpA

Table 1. *Italian banks listed on the bank sectoral index of the Italian Stock Exchange*

2.2 Research questions and phases of analysis

The present research is based on the following main hypothesis: the assets of banks listed on the sectoral index called FTSE banks are mainly represented by loans.

To reach the goals of this study, we need to formulate two research questions:

- *RQ1*: What is the role of Net loans for banks in terms of impact on total assets? And, consequently, what is the trend of the reserves for impaired loans?
- *RQ2*: Is there a correlation between the credits and their related Reserves of impaired loans?

The research methodology follows *three phases*:

a) *Phase 1*: Definition of the items monitored. As we analyse the annual financial reporting of a group of Italian listed companies, we refer to the IAS-IFRS principles (Dezzani et al, 2014), and in particular to IAS 1, *Presentation of Financial Statement*.

b) *Phase 2*: Empirical analysis and findings. It involves an analysis of the information derived from the sample. The research methodology only uses the information provided in the consolidated financial statements because it is sufficient to answer the research questions.

With reference to *RQ1,* we firstly want to demonstrate that the amount of net loans is particularly significant in bank balance sheets. Afterwards we want to monitor their evolution and make a comparison with the percentage of Reserves of impaired loans to the total gross loans in the period considered.

With reference to *RQ2,* we firstly calculate the Pearson correlation ratio between the Gross Loans and Reserves for impaired loans. Thanks to this ratio, we can analyse the impact of gross loans on the reserves for impaired loans in order to evaluate the effects of a specific gross loans policy.

As mentioned above, the Pearson correlation ratio (p) is used to identify a positive or negative correlation between the gross loans and the reserves for impaired loans. For this, it is necessary to underline the following conditions:

- if $p > 0$ there is a direct correlation;
- if $p = 0$ there is no correlation;
- if $p < 0$ there is a indirect correlation;
- if $0 < p < 0.3$ the correlation is weak;
- if $0.3 < p < 0.7$ the correlation is moderate;
- if $p > 0.7$ the correlation is strong.

c) *Phase 3*: Conclusions and limitations of the research.

3. Findings

First of all, before analyzing the data obtained, we want to give further details and definitions.

The gross loans includes loans, finance leases, factoring transactions, debt securities, the variation margins with clearing in front of derivative transactions and operating receivables associated with the provision of financial services.

The gross loans are initially recognized at fair value which corresponds to the amount disbursed, or subscription price, plus any transaction costs and revenues directly attributable.

At the end of each accounting an assessment is made of the loss of value of the entire loan portfolio.

The amount of the loss is recognized in the income statement.

The evaluation of the impairment loss on the entire loan portfolio is made taking into account these distinctions:

- Non-performing loans (non-performing): this category includes the suffering, substandard loans, restructured loans, loans past due / overdue (Past due), as defined by the applicable regulatory reporting;

- Performing loans (or performing): as for non-performing loans (Excluding past due) assessment, analytically attributed to each individual position, is performed, for loans that exceed the threshold of significance, determining the expected cash flows and the relative timing of receipts.

Phase 2 concerns the stages of our research and the related comments.

Starting with the *RQ 1*, Figure 1 emphasizes the weight of net loans to total assets of bank balance sheets in the period between 2005 and 2013. The data refer to the average of the sample for each year.

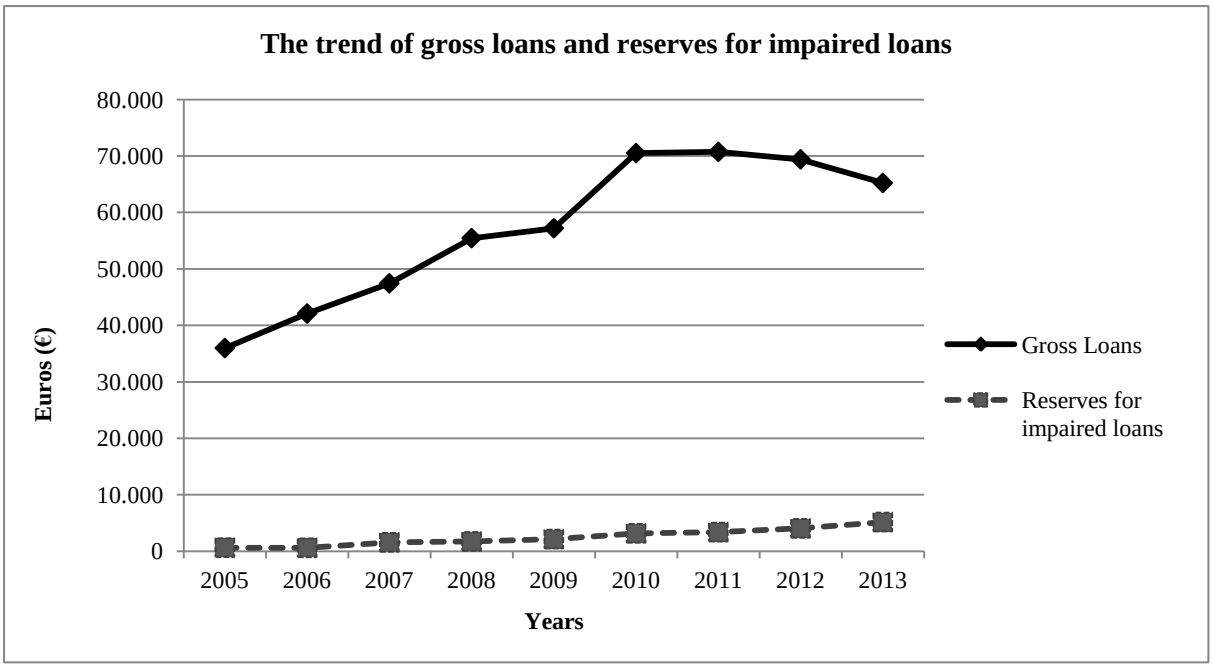

Figure 1. *The impact of net loans to total assets*

The figure confirms our main hypothesis, therefore, in the sample of banking firms considered, it can be noted that the gross loans were a significant part of the total assets.

Moreover there was a direct correlation between the two. In fact when gross loans went up, total assets increased too.

Obviously, the trend of total assets was also influenced by other items such as financial assets, classified as AFS (Available for Sale) or HFT (Held for Trading).

Moreover, despite the crisis in the period between 2007 and 2009, the sample of Italian banks increased its gross loans, in opposition contrary to what happened on the sample of American banks (Keister and McAndrews, 2009).

Figure 2 instead shows the trend of gross loans and reserves for impaired loans during the same period. The data refer to the mean of the sector for each year.

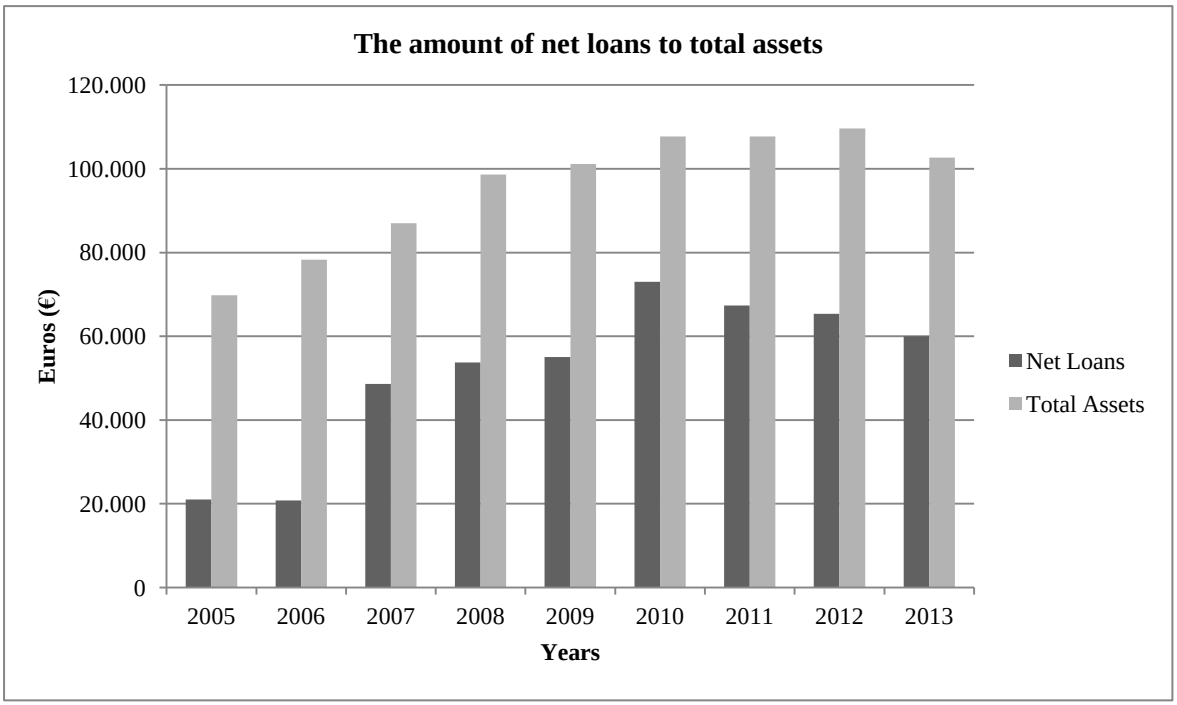

Figure 2. *The trend of gross loans and reserves for impaired loans*

The two figures demonstrate that the initial main hypothesis is true. In addition, it is important to understand the relationship in the balance sheets of banks between credits and the reserves. This graph lets us introduce the answer to RQ2. In fact, by analyzing their evolution, we can affirm that the two items were interrelated in the period considered.

We can notice that the reserves gradually increased between 2005 and 2013, while credits did not have the same plain growth. In 2009 the development stopped and then started increasing again, but in 2011 the amount of gross loans began decreasing.

It is therefore clear that in a period of crisis, such as the one that we have been through, banks have increased their reserves for impaired loans and have decided to reduce their risks.

Table 2 shows the percentage of impaired loans to gross loans, referring to the sample analyzed. As we can see, the amount of reserves has increased over the years. In fact it passed from 2.6% in 2005 to 6.4% in 2013.

In particular, in 2008 there was a peak, clearly determined by the general situation of crisis of that year.

Table 2	The percentage of reserves for impaired loans to gross loans									
		2005	2006	2007	2008	2009	2010	2011	2012	2013
	Reserves of impaired loans	2,6%	2,5%	3,3%	4,4%	3,1%	3,4%	3,9%	4,9%	6,4%

Table 2. *The percentage of reserves for impaired loans to gross loans of the banks of the sample*

As mentioned in the previous paragraph, in order to demonstrate the hypothetical correlation between gross loans and their related reserves, we decided to use the Pearson correlation ratio (p) in the period between 2005 and 2013.

Table 3 shows the results deriving from the correlation between gross loans and reserves for impaired loans.

Table 3	The Pearson correlation ratio between gross loans and reserves for impaired loans										
		Reserves for impaired loans									
			2005	2006	2007	2008	2009	2010	2011	2012	2013
		2005	0,94								
		2006		0,93							
		2007			0,96						
	Gross Loans	2008				0,98					
		2009					0,99				
		2010						0,99			
		2011							0,98		
		2012								0,99	
		2013									0,98

Table 3. *The correlation ratio between gross loans and reserves for impaired loans of the banks of the sample*

The present table confirms there is a strong correlation between the two variables. Every year the correlation overcomes 0.9, rising from 0.94 in 2005 to 0.98 in 2013.

Even in this case, the Pearson correlation ratio of each year confirms what we have just commented before.

On one hand the average of the allocations increases over the years and on the other the correlation is very strong.

4. Conclusions

Our research and its results confirm what many previous studies have stated before: the gross loans are an essential item of the balance sheet reaching in some years a percentage on average more than 50 percent of total assets (Keister and McAndrews, 2012).

Nowadays the balance sheet of banks is formed mainly by that item. But precisely for these reasons reserves for impaired loans have had an increasing importance.

Indeed provisions to reserves for impaired loans reveals that they will be one of the most strategic items of bank balance sheets.

Under these provisions, administrators will influence the income statement of the bank.

Our findings raise important bank supervisory policy issues: the use of bank level variables as early warning indicators.

Thanks to our study, we realized that in Italy in the period between 2005 and 2013 the gross loans of the group of banks considered increased. Moreover the related reserves for impaired loans had the same trend.

As a consequence the crisis of recent years has generated strong concerns regarding gross loans.

This system thus brought to an increase of provisions to reserves for impaired loans.

We have also noticed that the Pearson correlation ratio underlines that the growth of gross loans is strongly correlated to the increase reserves for impaired loans.

The overall situation has also an impact on the topic of bank mergers. Business combination would bring benefits in terms of aggregate credit risk and its management.

What we have analyzed also let us introduce all the limitations of this research. First of all, this study represents the first step of a much deeper analysis that can consider other variables, financial indicators and margins. Moreover, the same analysis can be extended to all European listed banks.

It might be interesting to compare and contrast the Italian situation with that of other European countries, such as England, France and Germany.

Also, it may be useful to understand the impact of the annual provision to reserves for impaired loans on the operating result. This might help better understand the balance sheets of banks throughout this period and how performance in the sector have been influenced by the policy linked to these provisions.

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