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"ITALIAN BANK BAILOUT IN 2016/2018:
A FINANCIAL STATEMENT ANALYSIS OF THE EX-POST
RECOVERY"

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Firma dello studente

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Introduction

The changed economic environment seriously affected the Italian banking system creating the conditions for the entrance in a troubled period for the financial institutions. Italy was not the only country which suffered this banking crisis, but even other European countries were seriously affected and the answer to this period of high stress for the banks, in many cases, was the state intervention. The European legislator to get a higher harmonization between member countries introduced a new set of rules to apply in case of bank bailout. In recent years, the Italian institutions intervened several times to bailout banks, but a part of the interventions applied after the introduction of the new European rules affecting the measures adopted by Italy. This created a condition of uncertainty on the measures to apply and the effect was to have different paths to save a bank.

In this thesis we study the methods through which the Italian institutions bailout the banks, analyzing the instruments and mechanisms adopted. The comprehension of this help us in considering the driving causes of the financial troubles suffered by the rescued banks. What is relevant is to specify that we consider the interventions happened after the introduction of the Bank Recovery and Resolution Directive. This condition is an element of innovation because we study bailouts occurred under these new rules set that will affect rescue interventions in the next future. In this work the main goal is to consider if the causes which led to bailout were solved after the intervention of the Italian institutions, observing the changes in the financial statements of the banks which were affected by rescue operations. In this work we deepen the bailout policies put in practice and we try to achieve conclusions useful for futures interventions adopted to rescue banks.

From what defined above, the object of our study are eleven Italian banks which were subject to different bailout methods. The causes which led these institutions to financial troubles are rooted on the traditional business, based on interests on loans rather than fees and commissions. For nine of the banks rescued, the solutions adopted involved the end of their activities because they were sold to other Italian banking groups. To discover the ex-post impact of the bailout it was not possible to observe the banks subsequently the interventions, for this the analysis was addressed to the buyer banks. From the analysis of the financial statements there is evidence that the buyer banks are undertaking a path to go away from the traditional business model, and the intervention to bailout problematic banks did not affect this path. Only one buyer bank showed results different from his past and from other banks, but it is not possible to conduct these results exclusively to the operation with the rescued banks, because this accomplished several other M&A operations in the same period.

The structure of the present work is based on five chapters. Chapter 1, it is introduced the argument with a general view of the Italian banking sector and a brief explanation of the most relevant rules. Chapter 2, the rules and rescue mechanisms are deeply showed with a presentation of the most relevant literature to define the research question. Chapter 3, the banks rescued are reported with the methods used to bailout them and it is explained the research methodology. Chapter 4, it is conducted the analysis to discover the causes which led to the state intervention and the ex-post effect of the bailout. Chapter 5, here the results are presented, and it is discussed with concluding thoughts.

Chapter 1: The framework of 2016-2018 Italian bank bailout

The European bank sector was seriously affected by the long and severe crises started in the 2008 in the US. The Italian bank system was not excessively hit by the Great Recession thanks to a limited exposure to structured securities and to a traditional business model of intermediation. The main problems for the Italian banks raised with the sovereign debt crises of the 2011. This led to a difficulty for the banks to collect money especially from companies and to a reduction of interest margin, putting the financial institutions and their businesses in a dangerous condition. It is important to specify the all the European bank sector suffered the sovereign debt crises and this may be proved by the many state interventions around our continent (Lusignani, 2013). At the end of 2016, the impact on public debt for measures to rescue the financial sector amounted to: 227 billion in Germany (7,2% of German GDP), 101 in the United Kingdom (4,3% of UK GDP), 58 in Ireland (22%), 52 in Spain (4,6%), 33 in Austria (9,5%), 23 in Netherlands (3,2%) (Commissione di inchiesta, 2018). However, the object of this thesis is not the European context but to focus on the Italian bank bailout. Specifically, we present what happened to banks before to be touched by the bailout and, above all, we analyze what changed to the financial institutions in the ex-post rescue phase. Essentially, we try to discover the main problems related to financial institutions which were subjected of a rescue plan by the state and then focus on the subsequent phase, studying if there were any impact on the banks.

Chapter 1 offers an overview of the Italian bank sector when it was hit by the sovereign debt crisis considering: GDP, composition of financial investments, information about NPL. It is viewed then the new rule set about the bank bailouts to understand the role of different authorities and to give a little of knowledge useful for the rest of the thesis. As a last point is analyzed a short case study in order to understand how the recent law modified the state intervention.

1.1: The effects of the Sovereign debt crisis on the Italian bank sector

The starting point to understand the difficulties of the Italian bank sector is the financial global crises the worst since the Great Depression of 1929. The effects of the crises were deep and amplified by the diffusion of structured securities based on subprime mortgages securitization. The Italian bank sector was hit even harder than other European countries during the crisis, but the recovery was better than the euro area, where many state interventions were necessary (Visco, 2018).

What helped Italian banks to avoid the hard consequences of the crises was mainly their business model focused on a traditional intermediation between families and companies and so a limited exposure on the activity of investment banking (Lusignani, 2013).

In the second half of 2009 a global recovery started, but in Europe a new crisis was ready to appear, the sovereign debt crises. This crisis exploded with the knowledge of the real conditions of the Greece financial position at the end of 2010. The impact of this new crises in Italy started in the summer of 2011 where the spread between the yield on the 10-year Italian government bond and the corresponding German one rapidly increases, reaching a peak of 550 basis points in November 2011 (Albertazzi et al., 2014). In our country, the crisis was deeper than in the rest of Europe and from the second quarter of 2011 and the first of 2013 the GDP decreased of 500 basis points. This double recession was the worst economic crises of Italian history, much deeper than the Great Depression (Visco, 2017).

The main consequence of a reduction on the GDP was the rise of the ratio public debt and GDP, which overcome 130% as it is possible to see in the figure below.

Figure 1: Italian GDP (right axis) and public debt/GDP (left axis)-Source: Visco (2017)

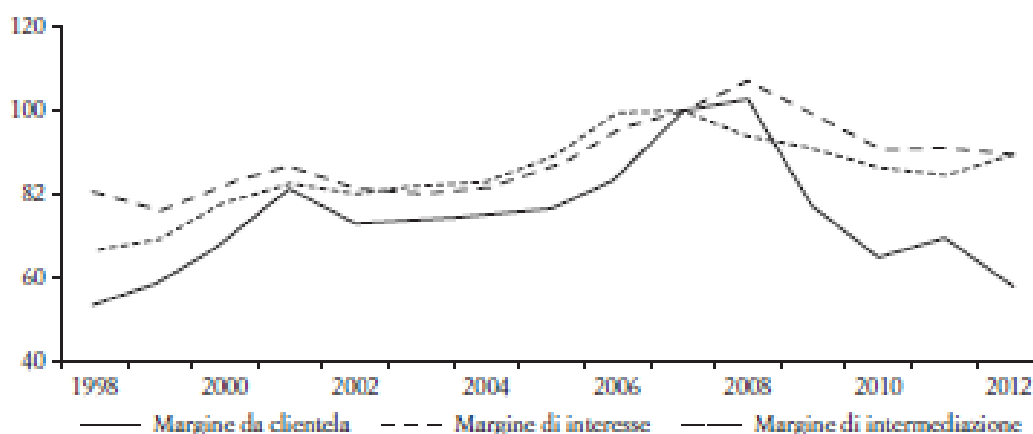


During the financial crisis Italian banks increased the lending standards to household and firms, increasing the margins on new business loans but also reducing the availability of credit to private sector (Del Giovane et al., 2013). Despite these measures, the non-performing loans (NPL) in Italy started to increase as to reach a level of 360 billion gross and 200 billion net, the 11% of the Italian bank loans. On the net NPL 90 billion were bad debt, so exposures to insolvent parties, while the remaining part were unlikely to pay and past due loans, so considered less risky than bad debt. The increase in the NPL was mainly due to loss of quality

of the borrowers and, consequently, there was a reduction of loans lending due to an increase of standards for the concessions of loans.

Not only the exposures were affected by the crises but also the ability of the banks to be profitable in their businesses. Traditionally Italian banks focused on commercial banking and limited their activity on investment banking. This means that banks were more focused on taking their profit on the interest margin rather than from bank services. Between the 2007 and 2012 the interest margin for bank loans reduced a lot, more than 40% (figure 2). This contraction was due to a reduction on the ability to collect the interest on NPL and to an increase of the cost of funding for the banks. Indeed, bank funding was related with the perception of the bank risk. The two relevant factors for considering this risk were the amount of NPL and the burden of securities issued by the Italian Government, which were suffering the high risk of the state during the sovereign debt crisis. This led to a reduction of the interest spread and profitability of the institutions.

Figure 2: Italian interest margin-Source: Lusignani (2013)



1.2: The new rule set about bank crisis management

Several European governments were forced to rescue troubled banks in their countries during the crisis, due to the absence of a common European policy framework for solving the banking crisis (De Bruyckere et al., 2013). So, the European legislator create a set of common rules along the European Union to unify the laws about banks bailout. In 2015 two different European Directives entered into force in all the member states, with the aim to set up a new order after the financial crises. The first is the Directive 2014/59, Bank Recovery and Resolution Directive (BRRD), that gives instruments to solve bank crises. The second is the Directive 2014/49 EU, Deposit Guarantee Scheme Directive (DGSD), that has as object the protection of savers and the creation of a set of laws more connected through the European

Union. This law is not object of a specific discussion in this work, but it was necessary to present for the impact that it has on the Deposit Guarantee Scheme that we nominate further in the thesis.

The BRRD started to produce its effect from the 1st January of 2015 introducing the bail-in instrument and a National Resolution Fund (NRF) for each member state with the task of cover the losses that cannot be faced by shareholders and debtholders during the bail-in process. About this process is given a specific examination further in the thesis while in this section a deeper analysis is conducted on the funds introduced from the Directive.

The NRF should gradually enter in the Single Resolution Fund (SRF), a common fund for the member countries, created by the Single Resolution Mechanism (SRM). The SRM was created with the object to ensure the stability of the Euro area through a centralized process of resolution (Bassan, 2017) and it entered in force the 1st January of 2016 and it is composed by the National Resolution Authority (NRA), the Italian NRA is the Bank of Italy, and the Single Resolution Board (SRB). The latter is a European agency responsible for the resolution functions which takes decisions about the resolution plans and that individuates specific actions to solve bank crises following the legal discipline. So, we can say that the Single Resolution Mechanism has the following objectives: the management of bank crises, ensuring that the bank failure does not affect the broader economic context causing financial instability and to guarantee minimal costs for taxpayers and real economy. The SRM was built to guarantee a common solution to banks in financial trouble and increase the financial stability of the member countries. This mechanism is necessary even because there is the risk that the EU countries take decisions about the banks' resolution in contrast between them. It is also necessary for the integration of a supervision at a supranational level, the Single Supervisory Mechanism. As we described NRAs take part to SRM decisions, but it is given also responsibility for the management of the less significant banks. In this activity the NRA should follow the guidelines set up by SRB which can substitute at any moment the national Authorities when it is threatened the harmony of the Mechanism.

Until now it was given a general description of the mechanism adopted by the European Union for managing the bank failure but it worth to know the contribution mechanism adopted by SRF and NRF. The member states of EU, as already said, adopted the 1st January of 2015 the FNR and they should complete it in 10 years. The target level to cover is at least the 1% of the deposits protected by the (DGS) Deposit Guarantee Scheme (deposits until 100.000 euro). The same calculation is used for the SRF but the amount of DGS considered is the sum of the deposit all around EU countries and it should be completed in a shorter time period, 8 years. As explained before, the SRF will absorb the NRF in the vision of a future

banking union which is slowly but progressively accomplished. The rules to calculate the contributions of the banks to the funds were expressed in the Commission Delegated Regulation (EU) 2015/63 of 21st October of 2014.

It is necessary to give a short overview of past mechanism adopted in Italy to deal with the crisis of financial institutions so that it is possible to better understand the implementations adopted by this new mechanism. Before the BRRD and the SRM the management of banks difficulties was left to Bank of Italy in charge of its responsibility of national Authority and the main instruments adopted were *liquidazione coatta amministrativa* and *amministrazione straordinaria*, these saw a reduction in their use with the new European rule set. The *amministrazione straordinaria* is usually set in order to restore the activity of an institution and it is not evidence of insolvency while the *liquidazione coatta amministrativa* is used when the bank crisis is considered irreversible and has as last scope the conclusion of the bank activity (Castiello d'Antonio, 2016). Moreover, in Italy are still present two funds of deposit protection (DGS) which before the BRRD could intervene not only to protect the depositors but also to prevent the institutions crises acting as an Institutional Protection Scheme (IPS). The first fund is the FITD, which was recognized as a DGS on 10th December of 1996 and it is a mandatory consortium formed under private law. The FITD is the only established and recognized Italian DGS whose membership is open to banks which are not mutual banks. The second is *Fondo di Garanzia dei Deposanti del Credito Cooperativo* (FGDCC), a statutory DGS whose membership is only open to, and mandatory for, mutual banks.

However, the actual rules introduced made less powerful the intervention of the DGS. Further in chapter 2, it is given a specific view of the functioning of the rules and funds until now described and their connection with the Italian law.

1.2.1: Tercas case

The mechanisms and rules described above are complicated and as it happened their intervention are not so clear. This is what occurred with the management of the crises with an Italian bank called *Cassa di Risparmio della Provincia di Teramo S.p.A.* (Tercas). In this paragraph, it is shown the process and the different interventions to deal with the difficulties of this financial institution. It is important to write about it because in rescuing this institution was applied a method that one year and a half after was considered inappropriate by the European authorities. The method was considered inadequate considering the rules which entered in force only after the decision to intervene to help this bank. So, the particularity about this intervention was the change of the method used to help the bank through the

retroactivity application of the BRRD. Indeed, the bank entered in crisis and was saved before the introduction of the new rule set. It is relevant to report about it because it gives a vision of how the new rules have changed the past ways to intervene but also because it describes the processes used to rescue a bank, giving us a first example of how the authorities act in banking crisis. Moreover, it is particularly relevant for the thesis because after this case for all the subsequent banking interventions were adopted the new rules introduced with the BRRD. So, Tercas sets the time threshold in order to choose the banks analyzed in the present work, because in this thesis we focus on the bank bailout placed on the new context used to save banks

Tercas is a holding company operating in Abruzzo region and the main shareholder was Fondazione Tercas owning a 65% stake. In 2011 Tercas acquired a 90% stake of *Banca Caripe S.p.A*, located in the same region of Tercas. In order to give a dimensional measure the number of Tercas employees were 225 while, in the consolidated balance sheet, it had 4,5 billion of net customer loans, 2,7 billion euro of customer deposits and 165 branches. After the inspection of Bank of Italy and after its suggestions to the Ministry of Economy and Finance on 30th April 2012 Tercas was put by the Minister under special administration following the article 70 of the *Testo Unico Bancario* (Italian Banking Act) (European Commission, 2015).

The first step to try to solve this problem was to consider an intervention of Fondazione Tercas or CreditoValtellinese, the main shareholders with respectively the 65% stake and 8% stake, for the recapitalization, but they refused. After the main shareholders a third party was considered and the figure was represented by *Banca Popolare di Bari* with a specific request during the due diligence on the assets of Tercas and Caripe of full coverage of negative equity by the FITD. The FITD (*Fondo Interbancario di Tutela dei Depositi*) is, as already said, a mandatory fund used as guarantee for the depositors introduced in 1996 and in line with the Directive for the Deposit Guarantee Scheme. The next step accomplished by the administrators was to submit a request of intervention of 280 million euro for a recapitalization to cover negative equity and to acquire impaired assets. The FITD decided to intervene in the support of Tercas on 28th October of 2013 and it was next ratified by the FITD's board. Before the intervention, the fund requested authorization from the Bank of Italy on 1st July of 2014 and six days later the FITD was authorized to proceed with the financial support. On 27th July of 2014 after the shareholders meeting *Banca Popolare di Bari* became the main shareholder. The FITD intervention was a contribution of 265 million euro

to cover the negative equity, a guarantee of 35 million euro to cover credit risk and a guarantee to cover possible fiscal costs arising from the provision of 265 million euro.

The problems incurred when the European Commission has come to know about the intervention of FITD to solve the difficulties of Tercas. The Directorate-General for Competition (DG-COMP) started to deal with the Italian Ministry of Economic and Finance because the intervention of guarantee funds for depositors is considered state aid when their utilization is under the state control and even if the funds are private. The Italian Authorities tried to explain the private nature of the funds and it started a long discussion with the European Commission in order to fix the problem about the utilization of the funds. The 27th February of 2015 the DG-COMP communicated the beginning of a formal investigation for *Banca Tercas* case. At the end of the investigation in December of the same year the Directorate-General for Competition (DG-COMP) declared the intervention of FITD as state aid and so against the current laws for the resolution of bank crises in EU. The incompatibility with the new rules was mainly because the new mechanism set a burden sharing for the shareholders and for subordinated debt holders. To conclude, Tercas was forced to giving back the sums received from the FITD with the respective interest for the period, but the payment was covered by the *Schema Volontario* an autonomous fund inside the FITD that it is not considered as state aid for the European authorities because it is not mandatory for the banks.

With the review of this case it was possible to consider how the discipline introduced by the legislator is not still integrated with the national laws and this create difficulties in the choice of the best approach to assist the bank which need aid. The main difference from Tercas and the banks analyzed in the thesis is essentially a time question, because Tercas was aided by the FITD but before the application of BRRD which changed the rules and the playfield to save banks.

In this first chapter we had a brief introduction about the condition of the Italian banking system during the crisis and the new rules adopted, so this define the actual context on which the Italian banks are operating. As we already said in this thesis, we concentrate on the most recent Italian bank bailout. This latter term has not legal definition, so we can consider it as rescuing or providing aid to a firm to prevent the firm from imminent bankruptcy or dissolution (Faccio et al., 2006). For our work, we define as time threshold to consider the institutions to study the introduction of the BRRD. The study is conducted in order to have a clear picture of the institutions involved on the rescue by the state, through the report of the main facts and the comprehension of the financial weaknesses which led to bailout. Moreover, this thesis tries to understand if the banks subject of bail out improved their performance or,

more easily, how they were impacted by the intervention of the state. Analyzing these aspects is relevant because the bailouts happened in a rule context different from the past, with more tighten rules about the state aid. So, studying these rescues gives us useful insights for the future where it is expected an enforcement of the EU mechanisms for what concern the rescue of banks. In the next chapters, we define a clear picture of the framework we are analyzing in order to better determine the research to conduct for understanding the implications on the banks after a rescue intervention.

Chapter 2: Theory and development of research question

In the current chapter, it is reviewed the academic literature about the bank bailout and to be specific in the following pages are considered the different ways to save a bank by the state. Through the theoretical analyses it is possible to understand the effectiveness and efficiency of the different instruments used by governments to bailout banks. The theory gives us the possibility to consider if the instruments used in Italy are useful to solve the bank cases and to develop and better understand the research reason of the thesis. The first part of the chapter goes through a deeper understanding of what reported in chapter 1 and so the relationships between the national and European laws, in order to have somehow clear the setting upon which the Italian bank cases are placed. The second one, as explained, is about the relevant literature.

2.1: Resolution mechanisms

In this section, it is reported the decisional path used in case of bank crisis. This path is particularly complex because there are many actors who participate in order to set a plan for the overcoming of bank difficulties: national authorities, European Central Bank, European Commission and in certain cases also other figures (de Aldisio, 2015). In this paragraph we do not want to discuss deeply about the measures adopted by legislator in to solve banks problems. The scope is to give essential knowledge about the process adopted to better understand the Italian bank bailout explained in the next chapter.

In the first chapter we mentioned the BRRD and this is a law which give some instruments to overcome bank crisis spontaneously, to act immediately and to solve it in an ordered way. The objectives of this law are three, identifiable as public interest: the minimization of the impact of bank rescue on taxpayers, depositors, real economy, financial system and keeping the stability of the system (Stanghellini, 2016). The public interest is pivotal for BRRD because if it is present there are diverse ways to save a bank. Indeed, if we are in presence of public interest is given high power to authorities through instruments for the resolution: bail in or bridge banks. When the public interest is not touched the crisis should not be managed with resolution instruments but with the normal procedures, in the case of Italy with *liquidazione coatta amministrativa* (LCA). So, the fact is to understand that it is fundamental to value when the public interest is in peril, and this means a high grade of discretion. The problem is not present for big banks because in case of failure they could affect all the system and so they are not subjected to national law but rather to resolution introduced by BRRD. The problem arises with medium-small banks, indeed if resolution is put in practice when are

present banks which produce losses it could create a social cost while proceeding with the closure of bank through national instruments is costly for the clients of the bank. The bank in crisis is subjected to resolution or national law (LCA) if there are some assumptions that are common for both paths. These assumptions are two: the bank is in financial trouble and, the second, that there are not alternative measures to overcome the situation. About the first assumption, the bank for the law is in financial trouble when there is an insufficient capitalization, a financial tension, and a management crisis. These conditions are relevant not only when they appear but even if there is the real possibility that these appear in the next future. The decision about the state of the bank is demanded at the supervisory authorities with competence in the specific bank, European Central Bank or Bank of Italy, and at the resolution authorities of the bank, Single Resolution Board or, again, Bank of Italy when it acts with functions of resolution authority. When the bank management believes that there are financial troubles that can justify the intervention of authorities it should give notice as soon as possible of the situation to the competent authority. However, the omission of this communication it is relevant only on the managers' responsibility because the bank cannot start a crisis procedure in its own, this power is given only to the specific organisms cited before. For what concern the presence of alternative measures to go over the troubles, these measures should be solutions based on market (e.g. increase of capital or sale of assets), interventions from institutional protection schemes arising from voluntary bank system contributions and, at the end, supervisory actions (LCA or other instruments). To put in actions the solutions here described, these should be exercised in adequate time in relation of the specific case to avoid damage to bank clients, to financial system stability and to market trust. When both of conditions above described are present it starts the mechanism to fix the problems with the intervention of specific resolution authority (SRB or Bank of Italy). This decide if proceed with national procedures (in Italy LCA) or resolution. However, before to implement this decision there is the valuation to overcome the troubles with a write down. Essentially with this operation a bank which is in a situation of crisis can cancel out all the shares issued and can convert the subordinated bonds on shares until to reach the required Tier 1 capital. In this case the authority should proceed without putting the bank in resolution but if the write down it is not enough to restore the capital, or it is not possible it enters the public interest concept. If it is present, we have a resolution while if it is missing it is open the LCA procedures. Until here it was reported how the authority decide to intervene and in which cases it is demanded the intervention of national or European schemes. Before to analyze the process step by step and giving a summary of all the different methods for the

management of bank crisis, it is necessary to give a view of the instruments introduced by BRRD and the Italian law.

The Directive 2014/59, Bank Recovery and Resolution Directive (BRRD), it is an essential component for the formation of a European bank union. The harmonization between national systems for the management of crises it is essential for giving the same instruments to countries which are included in the Single Resolution Mechanisms (SRM). Moreover, the Directive gives a certain sense of coordination between the authorities of members countries and non-members countries. Following the description of de Aldisio (2015) the BRRD introduces common instruments to prevent and solve the financial institutions crisis. The authorities can adopt three kinds of measures. The first is the Recovery and Resolution Plans, it is established to guarantee plans to create a specific path in case of difficulty or in case of a real crisis. The authorities here can modify the structure of bank groups and businesses to solve bank problems. The second measures are preventive measures, these consent to solve problems before that these compromised the permanence of the intermediary in the market. The power gave by this instrument consent to ask at the management to implement corrective measures and when it is necessary it permits to remove the management nominating temporary administrators. The third measure introduced is established to set instruments for the resolution. These measures consider the power to transfer the assets and liabilities to another bank or a bridge bank; to form bad banks where transfer bad debt; and as last the bail-in, a procedure to convert the debt instruments in shares or a reduction of liabilities value, imposing losses to shareholders and debtholders.

In this section, it is not given a view of all the three instruments, but we focus our attention on the last measures describe so, those introduced for the resolution of institutions. The reason is that for understanding the thesis the comprehension of how these instruments work is essential. The first measure analyzed is sale of business, this includes the sale of asset and liability to an acquirer and can be considered the whole or part of asset and liabilities. The essential point is that the sale disposed from authorities does not require the consensus of shareholders. If there is any gain from the disposal this should be given to the bank under resolution process. The assets not transferred, usually assets not more performing, are cleared following the national laws in a certain period. The sale should be at market conditions without conflict of interest, any discrimination between possible acquirer and without giving a competitive advantage. Moreover, it is searched the maximization of the sale price. In Italy, the sale to a third acquirer of the business was traditionally applied in bank crisis, in order to ensure the continuity of the business of financial institutions under LCA.

The second measure is what is called bridge bank. The assets and liabilities of the bank under resolution can be transferred, partly or completely, to a temporary bank built from authorities for a further cession to other acquirers. This gives the possibility to maintain the essential functions of the bank until the sale. What is not transferred to the bridge bank stays on the bank under resolution and should be cleared in a brief period. The gain from the dispatch is of the bank in crisis but for the transfer of asset and liabilities it is not required any permission to shareholders, moreover to them it is not recognized any rights on the bridge bank. The bridge bank should be owned by public authorities, included resolution authorities or resolution fund. At the resolution authorities is demanded also to nominate the organisms of the bridge bank and to approve the strategy and the risk profile. The duration of a bridge bank is limited to two years and after this period it may be renovated year by year. After the sale of asset and liabilities in the market, the bridge bank is cleared. The gain from this last process is given to shareholders of bridge banks, public authorities, the funds or even the creditors subjected to bail-in. The bridge bank is an instrument particularly relevant when it is not possible to individuate immediately an acquirer. The instruments are particularly appropriated when it is possible to separate the good asset from bad asset, the first will transferred in the bridge banks while the others remain in the bank under resolution.

Another instrument is the bad bank which is an asset separation tool and it is relevant in case of separation of damaged assets or when it is difficult to value good activities. This tool gives the possibility to release the financial statement from non-performing activities and it creates and advantage for the bank. For this reason, the Directive intend to utilize this tool together with other resolution instruments. The bad bank capital is completely or partially owned by the resolution fund or other resolution authorities and as the bridge banks the authority approve the management and the strategy as the risk profile. As the bridge bank, the gain goes to bank in resolution. Bad banks can be used when it is necessary to ensuring the right functioning of the institution or even to maximize the sale value. The mandatory condition for the use of this tool is that it should be used together with other resolution instruments, bail-in and bridge banks.

The last mechanism to analyze is the bail-in. This tool consists in the reduction of shares value and of some debt and the conversion in shares of debt. This is the most important novelty introduced by the Directive. The reason behind this instrument is that the imposition of losses to shareholders and debt holders give the possibility to not touch the going concern and so not disrupt the relationships with customers and other market players. So, the fact is to anticipate the loss that shareholders and debt holders would suffer in case of bank trouble without waiting too much and avoiding worst market consequences. Moreover, another reason

is that the instrument reduces the contributions of taxpayers and limit the moral hazard. The conversion in shares of other instruments is imposed by the authorities. For this the application of the bail in is subject to some conditions: the public interest, the principle of no creditor worse off (creditors have not to lose more than they would lose with other instruments), the individuation of creditors classes attributable of bail in and some restorations for the creditors hit. The bail in excludes some instruments from its application, these instruments are for example the protected deposits, the covered bonds and others with specific collateral, interbank sums with a life of less than 7 days. More precisely there is a precise hierarchy for absorbing the losses: the first are stock and other capital instruments; than subordinated debt, bonds and other admissible liabilities; the deposits higher of 100.000 euro of individuals and small-medium enterprises and as last the single resolution fund to protect account holders of more than 100.000 euro.

After the explanation of the instruments introduced by the BRRD, it is time now to explain the decisional process for managing the bank crisis. The authority in charge of supervisory (ECB or Bank of Italy) or the authority for resolution (SRB or, again, Bank of Italy) determine if the bank under its control is in trouble. The resolution authority than determine that there are not alternative measures (market, protection systems or other supervisory actions) that give the possibility to overcome the situation in reasonable times. When both of conditions are present than the resolution authority apply the write down, as previously explained, otherwise the authority, if it is not possible or insufficient a write down, open the resolution. However, the resolution is open only when the public interest is mined and in the other cases, in Italy, is applied the *liquidazione coatta amministrativa*. When the authority chooses the resolution, it adopts the program more adequate to pursue the public interest. The resolution does not affect the possibility to put in LCA the bank when the institution is not any longer dangerous for the public interest after the application of resolution. So, the resolution can be considered more as a rescue of the system rather than a rescue of the bank. The involvement of European rules with national rules can make a substantial improvement of home country laws (Schoenmaker and Siegmann, 2014).

In this section, it was reported the relevant laws that were introduced in recent years. These laws are an answer to the frequent bank bailouts during the crises. The new rules hit particularly the Italians banks because different banks entered in trouble after the introduction of the BRRD. So, the rule context on which the banks were saved it was different from other interventions of the Italian government. The Italian banks that were taken under consideration in this thesis were the banks bailed out after BRRD because this directive introduced a new

rule set. So, it is relevant to study these institutions because this novelty created cases with a different law context from the past.

2.2: Literature about bailout effectiveness and efficiency

In the next subsections are reviewed the studies about the impact of government instruments in dealing with bank crises. For a reason of an easier understandability the literature was divided following the instruments usually used as considered by Hryckiewicz (2014) and so by: government guarantees, liquidity provision, capital injection and TARP. These are the main instruments put in practice by countries, also by the Italian government, with the exclusion of TARP that, as we will see later, is a specific US instrument. Surely in the following paragraphs are not only proposed studies which refer to a specific instrument but also studies that try to understand the impact of bank bailout where a plurality of instruments are used. The academic literature here under attention is focused on the post intervention, especially to look at the efficiency of the rescue methods. What is here considered is the effect after the government intervention on the entities bailed out by the national authorities. This is particularly relevant because in this work we try to identify if the banks involved in the bailout were impacted by the state intervention. We seek to retrieve, if there are any, the effects of the bank bailout on the single institution. So, it is for this that we focused on the literature which studies the ex-post effects of the state aid on banks. Moreover, as we said the Italian government put in practice specific interventions that can be compared to the instruments here described, and for this from this literature we can understand how these instruments work and their characteristics but, what is more important, the possible implication on the rescued financial institutions.

2.2.1: Government guarantees

Before going deep in the analysis about government guarantees is necessary to understand what we consider when we refer to this tool. The guarantee schemes are different from country to country but there are some common characteristics: the eligible instruments (newly issued senior unsecured debt), the eligible institutions (primarily domestic banks), a limit on the amount of issuance for each bank, fees for the access, and a specific time period for availability (Grande, 2012).

In July 2001 there was an announcement of the removal of explicit government guarantees for German Landesbanken and the effect on bank risk taking was studied by Fischer et al. (2014). The purpose of their work was essentially to analyze if the removal of guarantee increases

incentives for banks to take risks (franchise value effect) or if without a guarantee the creditors increased their control on the bank, decreasing the bank's risk taking (market discipline effect). The removal of guarantees should increase risk taking because there is a loss in the future profits, the so-called franchise value. To exploit this natural experiment, it was used a differences-in-differences approach trying to answer to two questions: do Landesbanken provide credit to riskier borrowers after July 2001? Do Landesbanken adjust the interest rates to their borrowers accordingly? These to find evidence about the risk taking of German banks. The sample used consisted of 1578 syndicated loans issued between 1997 and 2008. The results obtained show that the announcement of the retirement of guarantees creates a deterioration of the credit rating, higher funding costs, and a loss in franchise value. After the removal of guarantees Landesbanken lend to riskier borrower but do not adjust interest rates and the effect is higher the highest the expected rating downgrade and so the highest loss in franchise value. This is a point in favor of guarantees because their elimination creates riskier institutions.

Differently Gropp, Hakene and Schnabel (2010) investigated the effect of competitive effects of government bail-out policies. They considered both explicit and implicit guarantees, the latter are expectation to be saved even there is not any explicit commitment. The main hypothesis is that MSI (market share of insured competitor banks) increases banks risk taking. The dataset used includes more than 5000 banks from 30 countries. The results showed that government guarantees strongly increase the risk-taking of competitor banks reducing their margins. In contrast, there is no evidence that public guarantees increase the protected banks' risk-taking. Moreover, there is evidence that the public disinvestment and the discontinuation of explicit guarantees may be insufficient to eliminate effect of guarantees because markets expect banks to be bailed out in case of difficulties. In accordance with the findings the authors highlight the importance of reducing bailout expectations and to impose a capital surcharge (in addition to regular capital requirements) on the largest bank institutions to level the playfield between large banks and competing small banks.

The guarantees gave by the government to banks can generate a risk return trade off in banks asset returns (Mäkinen et al., 2019). On the one hand the guarantees are beneficial given that guaranteed claims generate higher payoffs when guarantee is honored. On the other hand, if guarantees are less likely to be honored from the government when the economy worsens providing poor insurance. So, government guarantees can have a direct positive effect on bank risk premiums. To find this the researchers used CDS contracts to examine the impact of the guarantees on the cost of bank debt while for Equity returns are computed simply as the daily logdifference of the total return price index for about 88 banks.

During the financial crises of 2008 there were the intervention of governments to save banks and Grande (2012) reviewed the guarantee schemes adopted in Autumn 2008 assessing their effectiveness and their costs. The guarantee schemes adopted by the most advanced economies had two main objectives, to support bank funding so to avoid liquidity crises and to support bank lending to avoid credit crunch. The main short terms goals on bank bonds was to help banks to maintain access to medium-term funding at a reasonable cost. There is evidence that debt guarantees helped banks to resume medium-term funding. This evidence is also found by other studies (IMF, 2009; ECB, 2010; Schwartz, 2010). Another effect to consider is the effect of debt guarantees on the likelihood of banks' insolvency and it can be found by looking at the credit risk premiums on bank bonds. The study focused on two types of indicators: the yield spreads on bank bonds and the credit default swap premium. The results show that debt guarantees lowered bank CDS premia reducing the bank insolvency. The last goal of public interventions was to support financial intermediation and so the credit to private sector, the evidences show that countries in which banks had a higher recourse to bond guarantees tended to have a stronger rebound of bank lending.

2.2.2: Liquidity provision

In the current section, it is analyzed the impact of liquidity provision on banks, considering what are the effects on banks of this solution in case of bank difficulties. This analysis is important to give a theoretical set to better understand and analyze the Italian bank bailout.

It was studied the effect of provision of liquidity to banks during panic by Martin (2004) and specifically the main contribution was to understand if the liquidity during panics can prevent bank runs without moral hazard. He developed a model that shows how a liquidity provision policy can prevent bank runs without causing moral hazard problems associated with deposit insurance. With deposit insurance banks are bailed out when their risky investment fails and that gives them incentive to take more risk than they would, creating moral hazard. Contrarily with liquidity provision there is not any incentive because it does not affect the bank's return in an asymmetric way. Even Corsetti et al. (2006) analyzed the liquidity provision in relation with debtor moral hazard. They developed a model where crisis is caused by the interaction of bad fundamentals, self-fulfilling runs and policies by three agents: international investors, the local government and an international official lender. The model contributes to provide the main policy trade-offs in the design of liquidity provision by an international financial institution. Their research supports the fact that liquidity provision can work to prevent a destructive run although it shows that large and potentially unlimited liquidity provisions are

not necessary to reduce liquidity runs and in the model the success is limited to cases in which fundamentals are not too weak. There is also evidence about the incorrectness of the argument that liquidity support always induces moral hazard, thus, liquidity support may encourage good policy behavior rather than discourage it.

When the number of bank failures increases the set of assets available for acquisition by surviving banks increase but the total liquidity falls. For Acharya and Yorulmazer (2007) this results in cash in the market and when the bank failures are high there are too many banks to liquidate. So, inefficient users of assets who are liquidity endowed may end up owning the liquidated assets. Their research is focused on granting liquidity to surviving banks in the purchase of failed banks, which is equivalent to bailout policy from an ex-post standpoint. As the previous researches mentioned the authors created a theoretical framework as method to find the impact of liquidity provision.

It is important to know not just the effect of government liquidity but also when there is the intervention of a lender of last resort (LOLR) providing liquidity to financial institutions. This is what Naqvi (2014) analyzed through a model that studies how the presence of a last resort lender affects the investment incentives of banks. Since banks hold only a fraction of their deposits as reserves, they are vulnerable to liquidity shocks which might hit the economy creating panic that affect the behavior of the depositors. The model developed identifies the optimal bail out policy by the LOLR and its effects on ex ante incentives. In the absence of a LOLR there is an underinvestment problem and a perfectly informed LOLR solve this underinvestment in smaller banks but conduct to a moral hazard of over investment in larger banks. This because larger banks are too big to fail, and this affects the ex-ante incentives of big banks. Another study focused on the presence of a lender of last resort in bailout banks is that reported by Cordella and Yeyati (2002). The central bank's LOLR function creates the trade-off between being too severe, thus increasing the probability that a failure of a single bank damage the confidence of the market, and being too soft, creating incentives for excessive risks. The researchers showed that a central bank that announces and commits ex-ante to bail out insolvent institutions, in times of adverse macroeconomic conditions, increases the value of the bank charter creating an incentives for prudent behavior that more than offsets the moral hazard component of such a policy.

Another way to give liquidity to banks in trouble is through other banks. Leitner (2005) developed a model of financial networks in which linkages not only spread contagion but also induce private sector bailouts, where liquid banks bail out illiquid banks because of the contagion threat. So, the linkages that helps spread the contagion may be optimal because the threat of contagion can motivate agents to help one another. This is useful for us because in a

certain sense the funds as the FITD are set by the banks with the scope to intervene in case of banks difficulty. The main assumption of this study is the presence of a coordinating device as the SRM.

During the financial crises in Japan there were various regulatory interventions and Shimzu and Cuong Ly (2016) examined the effectiveness of the intervention. In Japan during 1990s and early 2000s were made four diverse kinds of interventions by the government. The public fund injection (PFI), reinforcing equity capital and providing liquidity to the financial system; the prompt corrective actions (PCA), which require early intervention when a bank capitalization is still positive but under-capitalized; the failure resolution scheme (FRS), to rescue banks purchasing or assuming the assets and liabilities of the failed banks with the aid of deposit insurance; the deposit insurance reforms (DIR), a deposit insurance policy. In summary the analysis provides supportive evidence for the liquidity provision by the government. The results showed a relevant support to liquidity and capital injection because seven individual PFI events have mitigated systemic risk while one largest PFI event failed. PFI mostly had a positive direct spillover effect but a negative external effect, however, the largest PFI event had a positive direct/external spillover.

2.2.3: Capital injections

In the present subsection, it is given a review of some researches about the effects of capital injection in banks to bail out them. Here capital injection is considered in a broad meaning and so all the set of instruments and mechanisms that help banks in difficulty to recover their capital.

During the global financial crises in 2008 and 2009 were put in practice many measures to sustain banks and their functions in the markets. Brei et al. (2013) studied the impact of various rescue packages making special attention to recapitalizations for bank lending. To answer to their question, they analyzed a dataset of large international bank groups of the 14 major advanced economies between 1995 and 2010. The method used by the researchers is a dynamic system called Generalized Method of Moments (GMM) useful to giving consistent and unbiased estimations of relationships between the macroeconomic variables, bank-specific characteristics and bank lending. The results obtained by the authors show that bank capitalization plays an important role in supporting bank lending and the importance of capitalization differs in crisis and in normal times, with an increasing effectiveness of capital in a crisis. The benefits from capitalization are present only once the capitalization exceeds a critical threshold, undercapitalized banks seek to restore their regulatory capital ratio without generating additional lending. This suggests that recapitalizations may not translate into

greater credit supply until bank balance sheets are sufficiently strengthened. The effect of capital injection from the government in the event of bank crises is effective only when it overcome a specific amount of capital. In another study conducted by Brei and Gadanez (2012) were analyzed the balance sheets of 87 large internationally active banks of G10 plus Austria, Australia and Spain. The main purpose of their research was to understand if bank rescues in the form of bank recapitalizations helped banks with risky lending activities to be safer. To find an answer they examined the syndicated loans where a group of banks extended credit to a single borrower. The banks were analyzed looking at the level of their assets, deposits, loans, syndicated loans and net income and at their balance sheet ratios: total loans relative to total assets, total deposits relative to total assets, Profitability (ROE) and impaired loans over total lending. The examination on large international banks reported that banks which received public rescue do not reduced the riskiness more than non-rescued banks.

Other than riskiness of banks another dimension to take care is about the effect on liquidity of capital support. Berger et al. (2016) studied in deep this relationship by analyzing 114 German banks which received capital support and the sample was composed of observation of the period 1999-2000. Just for the knowledge of the reader the research conducted was not only focused on capital injection but also on regulatory interventions but for the thesis this is not relevant and so it is not reported here the effect of regulations. To a better comprehension the authors divided liquidity creation into asset-side, liability-side and off-balance sheet liquidity creation. Capital support reduces asset-side liquidity creation but increases liability-side liquidity creation. These effects eliminate each other, and it is possible to not find overall effect of capital on the banks' total liquidity creation. Furthermore, capital support reduces total loans, in line with the findings of reduction in asset liquidity creation and this effect is larger for corporate loans than for retail loans.

Lin et al. (2014) analyzed the package effect of bailout policies, composed of direct equity injection, on the equity risk of a distressed bank. The research conducted by the authors use a down and out call (DOC) valuation model. The authors put emphasis on after tax earnings and interest margin, difference between the loan and the deposit rates, because is the principal element of bank cash flow. They examined how the bank's interest margin is determined under government bailouts. With the identification of an optimal interest margin they study how a capital injection determine the bank's equity risk. The results showed that capital injection tends to be successful in improving interest margin. Furthermore, they demonstrate also that banks prefer combined bailouts to a sole instrument from an equity return perspective while the government oppositely prefers one instruments rather than combined bailouts for reduce equity risk. We report here also the work of Veronesi and Zingales (2010),

they analyzed the equity infusion in ten banks at the end of 2008 by the US government. This for us is particularly relevant because they considered the costs and the benefit of state intervention on a small group of banks, as we are doing in the thesis. They conducted an event study analysis on the bonds, on common stock and preferred equity and then they calculated the net cost of the preferred equity infusion. The researchers also analyzed the plan from an ex ante point of view, and they studied the costs of alternative plans. From the research emerged that the plan was a success because it created value and the benefit created is the result of a reduced probability of bankruptcy.

2.2.4: Troubled Assets Relief Program (TARP)

In this section, it is reported the literature about the intervention of the US government to counteract the financial crises of 2008. This is particularly relevant for several reasons even if the instruments used were injection of preferred equity, essentially what considered in the paragraph before. Its relevance is due to the amount of literature written about it since the crises in 2008, and for the fact that TARP was the package used by the most important economy in the world to save its banks. For this was decided to separate this section from the others, to give a better explanation and an adequate importance. The most important instrument of TARP was the Capital Purchase Program (CPP) that injected capital into troubled banks and it committed 250 billion dollars of the 700 billion authorized for TARP, permitting financial institutions to sustain a normal flow of credit during the crisis (Office of Financial Stability, 2010). The US Treasury purchased \$125 billion in preferred equity and debt from the nine largest banks, the preferred stocks pay a dividend rate of 5% per year and it will rise to 9% thereafter; the debt instruments pay a 7.7% interest rate that will increase to 13.8%. The remaining \$125 billion was made available to other banks that qualified for TARP funding (Veronesi and Zingales, 2010).

Following Berger et al. (2016) a major objective of TARP was to reduce systemic risk and prevent a financial collapse which could have dragged down the real economy. In their work, differently from other researches, it is not examined the effects of bailouts on specific parts of the portfolios of bailed out banks but, more generally, if the TARP was effective in reducing systemic risk. It may seem obvious that injecting preferred capital into banks would reduce contribution to systemic risk however it is not so obvious this consequence. Indeed, there could be reasons that lead to say that TARP instrument may increase banks' systemic risk. For example, the increase of risk may be caused: by capital priority channel (common equity difficult to raise due to subordination), by increase of banks moral hazard and by perception

of too big to fail that encourage banks to become larger. To solve this problem the research tries to answer to the question whether bailouts tend to reduce or increase systemic risks. The methodology applied was difference in difference and the sample was publicly listed commercial banks in the US over 2005-2012 period. The results suggest that TARP led to significant decrease of systemic risk consistent with a stabilization of the financial system. The analyses suggest that larger banks, safer banks and banks with better economic condition were the first drivers for a reduction of systemic risk. It is also showed the channels through which bailouts are effective and the primary channel is capital cushion, useful to reduce leverage risk. Bailout may affect systemic risk through the alteration of leverage risk, portfolio risk and systemic importance of bank. The last finding is that bailout may be most effective when systemic problems are at their worst.

As seen until now many studies about bail out of financial institutions report the effects of the rescue programs, used by governments, on a specific element. Harris et al. (2013) differently tried to discover the effects of TARP on the overall operational efficiency of a bank which benefits of this program. The researchers analyzed a sample of 227 TARP funded banks obtained from a list of TARP recipients received from the US Treasury department and a matched portfolio of non-TARP banks. The considered period started six quarters before the beginning of TARP capital infusion and finished six quarters after the TARP capital infusion. The methodology applied to measure: the bank efficiency, the impact of TARP on efficiency, the change inefficiency and the abnormal change in efficiency was Data Envelopment Analysis (DEA). From the study emerged that the operating efficiency of banks declined as a result of the crises, but the operating efficiency is worse for TARP banks compared to non-TARP banks, and the researchers attributed these findings to related moral hazards. The operating efficiency weakened because the intervention reduces the incentives of managers to adopt best practices to improve asset quality. Moreover, the results reveal that when the likelihood of receiving capital injection is higher the change in bank efficiency is worse.

An important aspect to consider in case of bail out it is not specifically the rescue itself but rather the bail out announcement by the authorities. Wang (2013) in his study analyzed how the announcement of bailouts affects investors' bank run incentives and consequently the impact on banks. The study was based on a model variation of Diamond-Dybvig and investors choose if to withdraw their investments early or to wait until maturity. Investors and governments receive private noisy about the quality of bank assets and the probability of a bank bailout in case of overcoming of a certain threshold. Two effects were taken into consideration: the probability of bank runs reduction due to rescue and the signaling effect so to give information in the market after the announcement. The model highlights that the

signaling effect from government bailouts may increase the probability of bank runs since bailouts signal the government's information that the bank is in trouble.

Li (2013) investigated the determinants of the TARP funds distribution to banks and the stimulus effect on credit supply in the economy. This research finds that TARP investments increased bank loan supply by an annualized rate of 6.36% for bank with low tier 1 capital ratios. The TARP banks used the capital received for about one third to support new loans and kept the rest to strengthen the balance sheets. The study is conducted through a two-step treatment effects model by using the variables to proxy CAMELS (Capital adequacy, Asset quality, Management, Earnings, Liquidity, and Sensitivity to market risk).

The TARP, following Berger and Roman (2015), gave competitive advantages to recipients and they increased market share and market power relative to non-TARP recipients. Moreover, these positive findings may be driven primarily by the safety channel (TARP banks may be perceived as safer), which is partially offset by the cost-disadvantage channel (TARP funds may be relatively expensive). The competitive advantages are primarily due to recipients that repaid early, suggesting that these banks significantly reduced the importance of the cost-disadvantage channel and increased the importance of the safety channel. The method used by the researcher was a difference in differences (DID) and they collect the TARP recipients in the Treasury's Web site, and they obtained bank data from quarterly Call Reports for the period 2005:Q1-2012: Q4.

Since here, studies were described which analyzed specific instruments but as said before there are also researches which do not separate the effect of specific instruments but rather analyzed the effect of a package of bail out tools. Indeed, Gerhardt and Vennet (2016) investigated financial condition of banks before and after state support, specifically they identified bank characteristics that predict bank distress and investigated if banks aided improved their performance following a bailout. The dataset was created by them and was composed by EU, Norwegian and Swiss banks in the years 2007-2013. The threshold for considering a bank was of 10 billion which leads to 114 aided and 212 non-aided banks. The indicators used were related to Capital adequacy, Asset quality, Management, Earnings, Liquidity and Sensitivity to market risk. The findings of this study can be summarized as follows. The leverage ratio is a better predictor for bank distress and banks with a lower leverage ratio were more likely to be involved in a government-assisted bailout. Bank size is associated with bailout probability and loan loss provision/non-performing loans and net interest margin useful for distinguish between aided and non-aided. For what concern the effectiveness of rescue programs the study highlights that post-bailout performance is slowly at best and that banks are quick at recognizing the loan loss provision. Moreover, the

researches recommend that governments should require rapid and decisive action from the rescued banks in terms of redesign business model and governance changes.

Another study which do not refers specifically to a single policy mechanism but try to understand the effect total impact of rescue packages on banks is the research of Hryckiewicz (2014). In the study the researcher analyzed the total impact of government intervention in the bank sector, if the coverage and the structure of government intervention matter, which instrument contribute the most to the estimated effect and the optimal bailout package. The sample employed by the author consists of assisted banks from 23 countries on which they made a regression analysis. The results obtained show that government interventions are useful to limit negative consequences of financial crisis, but the regression shows that government interventions are associated with risk increase in post crisis period. Specifically, the results demonstrate that the risk may be a result: of reduced market discipline, of inefficient bank's management and lack of restructuring process. Particularly, blanket guarantees, nationalization and AMC contribute to the risk effect the most while mechanisms involving market discipline appear to perform best from a risk-reduction perspective. Thus, the total effect of government intervention is dependent on the combination of various intervention measures. As last finding the study reports that negative effects from an individual intervention might be mitigated by an appropriate choice of instruments.

The literature since here described gives us relevant knowledge about the bail out impact on banks, analyzing different instruments used by the governments to rescue troubled banks. From this analysis emerged that the effects of programs involved in the rescue of banks are more intricated than they could appear. Indeed, there is not a univocal evidence that shows the soundness of rescue plans. However, from the researches here reported is possible to obtain relevant information on the impact of bailout on financial institutions. The risk taking by the financial institution was one of the most analyzed measure on which it was observed the impact of rescue programs. Risk taking is relevant because it increases the probability of default of financial institutions compromising their business. From this prospective the studies above are not together in defining that the bank rescue gives a reduction in risk taking of saved institution. To be precise all the studies above, which relate to capital injection and liquidity provision instruments, agree about the reducing effect of these instruments on risk taking. While the opinion on guarantees instruments in theories above are in disaccord. Another aspect touched by the researchers above mentioned is the aspect of bank run, particularly relevant for banks under difficulty because can seriously damage them. However, liquidity programs can reduce the banks' run and it is not necessary an injection of unlimited

liquidity, oppositely there is evidence of bank run in case of announcement of bail out due to signaling effect, but this is just considering the announcement and not the rescue plan itself. Another important aspect usually considered in the literature about bank bailout is the moral hazard. In the analysis of the theory it is showed that liquidity provision can create problems of moral hazard, but liquidity can limit underinvestment in small banks, increase value of bank charter creating prudent behavior that more than offsets moral hazard and be useful when liquid banks bail out illiquid banks. From previous explanations, it is possible to assert that moral hazard affects operating efficiency compromising the bank activity. The studies showed, report the effect on one of the most important sources of income for banks, interest margin. Precisely, guarantees instruments seems to increase the propension to lend to risky borrowers without increasing interest rates while capital instruments are successful in increasing interest margins. From a prospective of operating efficiency it is showed that guarantees increase mid-term funding and reduce bank insolvency. Capital instruments seem effective to avoid bankruptcy and are relevant for supporting bank lending, especially in difficult periods, but these instruments do not affect bank liquidity.

As we already said, in this work we study the Italian bank bailout, focusing on events happened after the introduction of the BRRD and this is relevant because we studied interventions on a new context that will characterize the next future. The aspect on which we concentrate is the ex-post phase and this means the bailout impact on banks. However, before to have a look after the rescue we individuate the causes which led to bank troubles and subsequently to the state intervention. To find the causes is relevant because we can analyze if these were solved with the bailout. So, we can say that in this thesis firstly we individuate the reasons which created financial distress in the Italian banks under consideration as long to require the intervention of the state. Subsequently, we consider the impact of the bailout on the banks that were affected by the bailout, considering if the causes were solved and if there are any other relevant impacts. Further in this work we try to give an answer to what we are asking through the presentation of the bank cases and the subsequent analysis.

Chapter 3: Banks problem description and State intervention

In the first part of this chapter the Italian banks which entered in crisis are examined. In particular, the relevant solutions adopted for the management of banks in trouble are highlighted and the critical points which conducted these banks to instability are explained. It is useful to report about these banks for understanding the methods applied by the state to rescue the banks, if there are reasons other than the financial distress for the bank crisis and the time of intervention to use as threshold in the analysis. The cases are analyzed bank by bank but where possible the institutions are grouped because many institutions were bail out in group and so they have many facts in common. The banks here defined are object of a specific analysis and in the second part of the chapter it is defined the methodology and the research design for studying deeply these banks.

3.1: Monte dei Paschi di Siena-MPS

We begin to report the facts about this financial institution following the description of Barbagallo (2017) starting from the acquisition of Antonveneta. MPS purchased this bank in November 2007 for a price of 9 billion euro, of which 6 for the goodwill, calculated through the dividend discount model. The acquisition establishes an increase of capital to respect the minimum level required and, between the other actions, JP Morgan underwrites an increase of capital for 1 billion using the sum received for the emission of convertible bonds (so called FRESH - Floating Rate Equity-linked Subordinated Hybrid). It is important to notice that the acquisition dates at a period before the financial crisis and so the economic context still favorable. The operation had as main scope the coverage of the Nord-East of Italy and this operation was not subject to an independent due diligence because the supervisory did not require it. Bank of Italy in the letter for the authorization asked to MPS to create some capital buffers and to strengthen the governance of Antonveneta because in the last inspection it resulted in bad conditions (a result of 4 out of 5). Another point highlighted by the supervisory was about the FRESH, asking whether the contracts were in line with the nature of core capital gave to the instrument. Just after the conclusion of the acquisition, in the second part of 2008, the crisis started and between the 2008 and 2011 Bank of Italy conducted 10 inspections. The rating of the inspections was partially unfavorable (4 out of 6). The liquidity position was undermined by two repurchase agreements conducted with Deutsche Bank and Nomura for a total value of about 5 billion. These were components of two operations called “Santorini” and “Alexandria”. In the second half of 2010, it appears necessary to proceed with a capital increase and in July 2011 MPR strengthens the capital for

about 3 billion. In 2011 the sovereign debt crisis worsens the situation of MPS, especially for what concern the liquidity which is affected by the two repurchase agreement above mentioned. The supervisory after the inspection of September 2011 certified that the problems found before are not fixed and confirmed an inadequate management. Always in the second half of that year the Bank of Italy solved the liquidity problem through the lend of high liquid assets and asked a change of the management that it is then accomplished by MPS. In January 2012, the inspective powers of the judicial authority discovered some contracts about the FRESH, never communicated to Supervisory, and from these raised problems for the calculation in the core capital. After other inspections and other sanctions to the managers in June 2012 Bank of Italy studied the relationships between MPS and Enigma Securities LLP about the Italian bonds and the valuation and accounting representation of structured securities. The inspectors decided to examine much more operations than the internal MPS auditing (432 against 12) and the results show large anomalies. The new management discovered the mandate agreement signed with Nomura and from this is possible to understand that the Italian BTP 2034 were never purchased by Nomura. The mandate agreement found proves the relationships between the operation Alexandria and the repurchase agreement stipulated with the Japanese financial institution. Hiding this contract gave the possibility to MPS to avoid showing the real structure of the operation and from the beginning it was an operation with a negative fair value. The supervisory for this reason never understood the real scope of the operation, separately from the different methods of accounting that could be used. In February 2013 MPS communicates to the market the errors in the Financial Statements for the operation Alexandria and Santorini and announces a restatement. The errors are an amount of, respectively, 308 and 429 million euro and they consist in the reporting at fair value, rather than at the cost of purchase, of the losses of the two operations. The accounting representation is not modified, the different components are calculated separately rather than as a structured instrument. Due to the complexity of the operation it is asked to MPS to give full information about the repurchase agreement. Moreover, it is demanded to show the effects in the financial statement of a representation of the operations as derivatives compared with the previous exercise. The operations are at the end closed: Santorini in December 2013 and Santorini in September 2015.

It is important to reveal that MPS received state support during the sovereign debt crisis. Specifically, the European Bank Authority in the second part of 2011 promotes an exercise on capital, to test the impact on this of the valuation of government bonds at the market price. The EBA subsequently asked at the banks to maintain a core tier 1 capital more elevated and MPS following this request registers a capital shortfall of about 3,3 billion. MPS declares to

be not able to cover the capital deficit alone with market operations and asked the intervention of government support measures between 1,3 and 1,7 billion and the government issued new financial instruments (the so-called *Monti Bond*). The reimbursement of the instruments was anticipated in respect of the deadline and, together with other instruments previously issued by the state, generated benefits as interests of about 900 million.

In 2014 is conducted the Comprehensive Assessment of the principal European banks because in the same year the Single Supervisory Mechanism would be introduced. MPS shows a capital deficit, in the worst scenario presented by the stress test, of 2.1 billion. This deficit is covered with an increase of capital of about 3 billion in June 2015 and part of this new increment is used to cover the *Monti Bond*. The ECB, that meanwhile assumed the supervisory on the institution, asked to respect a CET1 ratio of 10,2%. Another stress test is performed by the Single Supervisory Mechanism during the 2016 and MPS highlights a bad condition in case of an adverse scenario at the end of 2018 (-2,4% of CET1 of the risk weighted assets). The 23rd December of 2016 the government adopts an act (D.L. 237/2016 of Italian law) with the scope of guaranteeing bank liabilities of first emission and to participate at the banks' capital under what prescribed by the BRRD and European Commission for what concern state aid. The same day MPS asks to participate at the liquidity provision for 15 billion and the intervention for the capital is presented by the D.L. 237/2016 of Italian law. The ECB quantifies the amount necessary for the capital in 8,8 billion, of which 6,3 are necessary to restore the CET1 ratio at the threshold of 8,8% and other 2,5 for a total capital ratio of 11,5%. After the presentation of a restructuring plan by MPS to the authorities (Ministry of Economic and Finance, European Central Bank and Bank of Italy) the European Commission approves definitively the measure for the state support. The maximum import established by the public intervention is of 5,4 billion: 3,9 for the capital increase and 1,5 for investors subjected to burden sharing. At the beginning of August 2017, the banks used the funds obtained by the Ministry of Economic and Finance to issue 593.569.870 common shares and the state become shareholder with the 53%.

3.2: Cassa di risparmio di Genova e Imperia (CARIGE)

In the present subsection is reported information about the financial institution of Liguria region. The explanation of the facts is based on what reported on the intervention of Panetta (2019) to the Italian Parliament Commissions. Carige during the period comprised between 2008 and 2011 enlarges its activity but further it is evident that these are not supported by an adequate planning. The crisis makes difficult the realization of some risky choices and these

problems are amplified by unruly behavior episodes which mine the reputation of the bank. The main shareholder, Fondazione Carige, does not put in practice an appropriate selection of top management components and moreover, in order to not dilute the quote, the measures for a capital reinforcement are more time insufficient and late. These actions are discovered thanks to the supervisory of Bank of Italy in 2013 and then through the inspections of the Judicial Authority. Another crucial aspect for Carige, as in other local banks, is the collapse of assets due surely to the economic crisis but also because of a low quality in the system for the concession of loans, many times under conflict of interest. As already said in the period 2008-2012 the bank shifts its activity from families and small enterprises to big customers. The sectors, mainly real estate and maritime transport, of these big customers further entered in crisis creating difficulties for the financial institution. It is relevant also the impact of two insurance companies controlled by Carige (Carige Vita Nuova e CarigeAssicurazioni). Indeed, these companies presents problems of profitability, of internal controls and distribution channel. In the period 2010-2012 they report losses for about 240 million and the parent Carige recapitalized with 390 million from 2008 until the disposal in 2014. The effects of the expansive strategies and of loan policies are reflected on the quality of the loans, with an increase of risk and subsequently of non-performing loans. Many inspections are conducted and these evidence problems which required the intervention of the supervisory for trying to solve them. In 2012 is required an increase of capital of about 800 million, then realized in 2014; in 2013 all the organisms of the bank changed, and another capital injection is realized in 2015. With this last intervention the bank recovers its capitalization until to reach a level higher than required by BCE in 2015-2016. At the end of 2015, the CET1 is 12,2% with a request of 11,5% while at the end of 2016 it is at 11,4% with a request of 11,25%. A relevant aspect is the relationships between the shareholders and the top management, in just three years four different CEO and three presidents are changed. These tensions limit the important initiatives for the reorganization and then the supervisory requires the *amministrazione straordinaria* (special administration). At the end of 2017, another operation of recapitalization is realized for about 900 million. In the spring of the 2018 the capitalization is ready to be completed with the emission of subordinated bonds and with the reorganization of the group through the disposal of assets, but something goes wrong. The already cited governance problems do not give the possibility to complete these operations. In lights of this the BCE requires to Carige the presentation of a Capital Conservation Plan and the bank completed it the 22nd June of 2018. The crisis of the governance touches the limit in the second half of 2018 and in the August of the same year Moody's downgrades the bank giving as main motivation the tensions in the governance which limit the reorganization and

create instability for the bank. In the period between April and August 2018 the ECB conducted an inspection on credit risk and emerged losses for 257 million. In December 2018 the ECB authorizes Carige to realize a new increase of capital of 400 million euro, this is guaranteed by the subordinated loan of 320 million issued the 30th of November by the FITD (see chapter 1), convertible in shares of the same amount in case of not full subscription of capital by the market. However, the main shareholder (MalacalzaInvestimenti) does not give the consensus to complete the operation financed by the bank system and the bank entered in *amministrazione straordinaria* the 2nd January 2019.

The Italian Government issues an act (D.L. 1/2019) which contains the measures for the liquidity and capital of Carige bank to guarantee the financial stability and protect the savings. With this act the State guarantees the emission of new bonds and the financing by Bank of Italy in order to deal with possible liquidity problems (the so-called emergency liquidity assistance). Moreover, the act gives the authorization to the Ministry of Economic and Finance to acquire shares in case of a recapitalization. Finally, the act establishes a fund of 1,3 billion to cover potential losses arising from these measures. The act presents: the conditions to have the guarantees, the remuneration that Carige should give back to Italian Government, the characteristics of the liabilities guaranteed and the commitments in order to benefit of the guarantees. Banca Carige for asking the guarantee should present the demand to the Bank of Italy and the Ministry of Economic and Finance. The request of Carige should be then presented to the European Commission who confirm the issuance of guarantee if it is in line with the state aid discipline. The European Commission after these steps gives a positive answer the 18th January 2019. In two months from the concession of guarantees the bank should present a restructuring plan to confirm the profitability and the ability to collect capital in the long period. For what concern the decision to grant liquidity of emergency the decision is on the hands of Bank of Italy, based on EU schemes. The maximum amount for the guarantees is based on ability to restore the financing of the medium long period and it cannot exceed the limit of 3 billion. The bank when benefits of the guarantee cannot distribute dividends or repay other capital instruments and cannot acquire shares of other companies. The second part of the act is about the recapitalization of Carige from the Italian State. This instrument is used only when the recapitalization of Carige is not possible to realize and the intervention should be required by the financial institution. The act is in line with the requirements of the BRRD because it is used to satisfy a capital need based on scenario of stress not to cover losses already proved or predictable as those found by supervisory inspection. Furthermore, the bank should be solvent and so able to respect the law requirements. The verification of these condition is under the control of the European

Commission together with the verification of the respect of the competition requirements. Following the act if the state enters in the equity there is the conversion of subordinated bonds in shares applying the burden sharing. From the moment that the only subordinated bond is in the hands of the voluntary scheme of the FITD the act does not require any restoration for non-professional investors. The entrance of the State in Carige should be at a price determined by an independent expert. Carige the 2nd January of 2020 communicates that an operation of recapitalization of 700 million was completed, it was subscribed a subordinated bond for 200 million, it was disposed an NPL portfolio of 2,8 billion. The recapitalization was subscribed by the FITD for 300 million, by the *Schema Volontario* for 313,2 million, 63 million by *Cassa Centrale Banca* and the remaining by those one who were shareholders before the start of the offer (Carige, 2019).

3.3: Four banks: Ferrara, Marche, Etruria, Chieti

These banks are grouped together because the authorities, as it is further explained, treated them in an analogous way in order to solve their troubles. For this reason, the description and the comprehension of what happened is easier if these institutions are explained in the same section. These banks were the first case of application of the BRRD in Italy because the intervention was put in action at end of 2015 (Locatelli et al., 2018). As we have seen in the previous sections, here it is showed the conditions which led the institutions in financial trouble and the intervention by the State.

The first institution that it is considered is *Cassa di Risparmio di Ferrara* also called Carife. At the beginning of 2000 Carife follows a growth strategy through a territorial expansion with the acquisition of small banks in Emilia Romagna and Veneto region and through the presence in Rome, Milan and Naples. At the end, the group was composed of seven banks and one leasing company. Due to this ambitious business development the supervisory asks at Carife to create an adequate organizational structure and an appropriate capitalization. So, between the 2008 and the 2009 Carife and its subsidiaries increased their capital for an amount of 110 million. After the inspection of 2009 it is evident that the bank is exposed to high risks with the concrete possibility of further capital troubles. A determinant role is in head of the foundation which limits the capital increase to protect its stake, 67%, and it presents a generous dividend policy limiting the self-financing. The supervisory starts to observe with more attention the situation and asks multiple times a reorganizational plan and a capital increase to guarantee a CET1 of 8%. Finally, in September 2011, the bank sells some assets and increases the capital until to reach an 8,6% of CET1 and a 12,5% of Total capital

ratio and the foundation sees a decrease of its stake from the 67% to 55%. However, the situation does not improve because in February 2013 the damaged loans are 34%, the liquidity is low and the 15% of the capital subscribed in 2011 is in the hands of banks of which Carife simultaneously bought shares and bonds. Moreover, the capital is 280 million (and not 599 million as reported by the bank) and a CET1 of 6,6% against 8% demanded. In May 2013 the bank enters in *amministrazione straordinaria* (special administration).

We start now to analyze Banca delle Marche. In the mid-2000's the bank is strongly located with more than 80% of the branches located in Marche region and it is composed of a small bank (Cassa di Risparmio di Loreto) and a leasing company (Medioleasing). The ownership of the bank is shared between three bank foundations, but they disagree the future prospective of the institution. The management strategy is based on an increase of assets but without a consistent collection from clients, this creates a decrease of capital together with liquidity problems. The CET1 is a little above the minimum required (8,3% against 8%) while the non-performing loans are in line with Italian system. In September 2007 there is an injection of capital of 150 million subscribed in the same measure by the three foundations and the CET1 rises to 10,2%. The bank hires an advisor to find an acquirer for the group and it finds four proposals from four big banks than reduced at two. However, the owners disagree between the choice to find a partner and to continue with their independence. After many inspections in January 2011, it is possible to know a critical situation of the leasing company with high risk positions of about 30% and non-performing loan of about 15,4% and a dividend policy inured to satisfy the requests of the owners. Nevertheless, the non-performing loans and the capital of the group do not show a critical situation. In January 2012 the Bank of Italy through a letter invites Banca delle Marche to take some interventions in order to adjust liquidity and loan lending. Just after the letter the bank increases the capital and the CET1 is at 6,8% while the total capital ratio at 10,1%, the foundations own 56% of capital and the bank Intesa San Paolo decreases its stake at 5,8%. Through the inspection of Tercas not clear operations of the Banca delle Marche general director are discovered and in August 2012 a new general director is nominated. After the provisioning campaign the situation results worse than what reported by the institute, the non-performing loans result to be 22% of assets against a bank system percentage of 13,5. This results in a capital that is deteriorating and the 25th July of 2013 the supervisory presents at the bank the necessity to increase the capital of at least 300 million. The research of investors is failed and the subordinated bonds for professional investors issued for 100 million are subscribed for only 25 million by two foundations. The 30th June of 2013 the losses reaches 230 million and consequently the total capital ratio is at 6,7% while the tier1 is at 4,3% with a necessity of capital of about 430 million. With this

situation the 15th October of 2013 the bank enters in *amministrazione straordinaria* (special administration).

Now it is the turn of Casa di Risparmio di Chieti (Carichieti). The small group is composed by a bank in Milan (Flashbank) and two other small companies. The ownership is in the hands of the Foundation of Chieti and the remaining 20% is owned by Intesa. Between the 2003 and the 2008 the bank increases its activity in other territories and at the end of this period its activity is based only for a 60% in its traditional territory. This strategy creates problems of liquidity and credit risk, indeed in July 2009 the non-performing loans are 12,5% against an average of the system of 9,1% but the situation is not so dangerous because the capital is much higher than the minimum required. An inspection conducted in April 2010 on the subsidiary Flashbank finds that the subsidiary has some problems on governance and internal controls. Indeed, Flashbank pursues a strategy of lending of high amount to big customers rather than giving loans of small amount to families and small-medium enterprises, as expected by the original mission. The total non-performing loans are 26,2%. The supervisory asks in September 2010 the incorporation of Flashbank and to remove the general director of Carichieti. This happened in January 2011 while the incorporation of the subsidiary six months later. After the inspection of June 2012 the bank presents non-performing loans at 21,2% and the capital is reduced and is above the minimum for 36 million. The actions conducted by the bank confirms that it is not able to solve the situation alone. In February 2014 a new inspection highlights the bank crisis, the profitability is compromised, and the capital does not permit to cover the new requirements together with the buffer. Moreover, the non-performing loans reaches the 32% of total assets and many managerial irregularities were found. The 5th September of 2014 Carichieti enters in *amministrazione straordinaria* (special administration).

Banca Popolare dell'Etruria e del Lazio (BPEL) is the biggest institution of the four here considered. It is a group composed by the holding company, a private bank, other companies of financial services and two small insurance companies. After an inspection of July 2007, the bank shows some difficulties in term of capital, liquidity and governance. During the 2008 and 2009 the bank enlarges its business and after the requests of the supervisory in July 2008 the bank increases its capital of 160 million. From the second part of 2008 the liquidity position starts to be low and Bank of Italy requires an intervention to increase liquidity. In January 2010 after a new inspection the non-performing loans are the 13,9% against a system average of 9,1%. The supervisory after many interventions does not see any improvement and so in March 2011 it is imposed to the institution the stop of the asset growth, the limit of internal and external growth and the disposal of companies' ownership. The situation is

solved only after the concession of a guarantee from the state on new debt issued in December 2011. The bank tries to overcome its problems through a capital increase with convertible bonds of 100 million. At the end of 2011 the non-performing loans reach the 20,6% of total assets and in November 2012 there is the conversion in shares of convertible bonds of 100 million with a plan of another capital increase for other 100 million. At the end of 2012, as already said, it is conducted an inspection in order to value the funds to cover the non-performing loans. BPEL results in underestimation of losses of 232 million and at the end of 2012 the financial statement closes with a loss of 203 million. In 2013 the bank realizes the full capital increase of 100 million and issuing two other subordinated bonds for 110 million. Although the bank is affected mainly by governance problems there is not any capital shortfall. The 5th December of 2013 it is asked to BPEL to find a partner able to bring capital and knowledge. The process to find a partner is conducted by two advisors and only two bank groups show their interest but subsequently it remains only one group, Banca Popolare di Vicenza. The offer proposed by the latter, a takeover bid by cash and transformation in Etruria SpA, is refused by BPEL and the 1st August of 2014 BPEL declares to have concluded the deal with the partner. During the partner research the non-performing loans reaches the 38% of assets and the dependence from the ECB financing reaches 1,6 billion. In August 2014 BPEL tries to find a new partner through another advisor but there is not any relevant offer. After this news the Bank of Italy conduces a new inspection and the result is that the non-performing loans are 42,4% of total assets, the losses are about 500 million with a total capital ratio of 1,3%. The bank enters in *amministrazione straordinaria* (special administration) the 10th February of 2015.

As we saw all the four banks enter in special administration. Carife and Banca delle Marche enter in the middle of 2013 with similar conditions, a total capital ratio of about two points less than the minimum required. Carichiati a year later with a capital about the minimum requirement and BPEL six month later with a capital extremely low. The commissioners (temporary management in charge of valuate the situation and irregularities with the objective to promote solutions) find other losses on loans which decrease further the capital. With the exclusion of Carichiati, for the other three banks are registered high liquidity problems. During this period, it is not found any acquirer for the banks and until the end of 2015 the contacts with European Commission do not give a positive answer for what concern the intervention of the FITD. The Italian authorities try to find a solution before the end of the 2015 because the liquidity situation, of three of the four banks, is very bad but mostly because the 1st January of 2016 the bail-in becomes mandatory with the increase of costs for all the related parties. With the intervention of the FITD the costs for the debtholders would be

minimized but many times the European Commission refuse the intervention of the fund considered as state aid. In November 2015, the new Italian rules about the BRRD are ready and the Bank of Italy starts the resolution of the banks. It is necessary to respect some conditions for the intervention of the resolution and the four banks are judge by the Bank of Italy in financial trouble, of public interest and without alternative solutions. The resolution strategy is based on reduction of the shares and of subordinated bonds to cover some losses. The banks are disposed to four bridge banks, the non-performing loans are transferred to a vehicle (REV Gestione Crediti S.p.A) and the national resolution fund intervenes for financing the resolution. It is confirmed that the principle of no creditor worse off is respected. The last step is about the sale of the bridge banks and it is given official invitation to present interest in January 2016. The 10th May of 2017 UBI banca acquires from the national resolution fund the bridge banks with exclusion of Nuova carafe (the bridge bank of the previous Carife). BPER acquires the 30th June of 2017 Nuova Carife. The European Commission approves both operations. The NRF grants guarantees and the subscription for capital increase for 713 million to respect financial requests.

3.4: Banca Popolare di Vicenza (BPV) and Veneto Banca (VB)

In this section is reported the case of the two banks of Veneto region. Also in this case the banks are not reported alone because they are acquired by the same group but above all because many problems are common between the two institutes: loans granted without appropriate methods, unclear methods for setting the shares price and *operazioni bacciate* not deducted from the capital (Barbagallo, 2017).

Starting with Veneto Banca we can say that the bank in 2007 launched a takeover bid over the 75% of the ordinary shares of Banca Popolare di Intra. This aggregation project was in line with the enlargement purpose of the group and with the aim to reinforce strategic geographical areas. The acquisition involved an outlay of 633.277.215 euro and together with Intra VB incorporated its subsidiaries: Banca Popolare di Monza e Brianza and Intra Private Bank. Furthermore, in the same year, there was also the integration of the commercial network of Banca del Garda. In February 2008 there was the integration of 36 branches acquired from Intesa Sanpaolo for € 228 million and the acquisition of Banca Italiana di Sviluppo (renamed Veneto Banka sh.a. after the operation). In 2009 VB acquired Cassa di Risparmio di Fabriano e Cupramontana (CARIFAC), injecting capital as requested by the authority, and Banca Apulia. In May 2009 the supervisory found management structure excessively centralized on the figure of the CEO, lacks in the credit supply process and the

price of the shares was neither assessed through a rigid methodology nor taking into consideration the relevant market parameters. For what concerns the assessment of the credit exposure and the non-performing loans the NPL amounted to 7.9% of total loans (the system average in Italy in December 2008 was 6.2%). In the same period the assessment of the supervisory capital revealed an amount of capital of about 2 billion exceeding the minimum requirement of €600 million. In 2010 we assisted to the merger of Banca di Bergamo and Banca Popolare di Monza e Brianza into Veneto Banca Holding. In the same year emerged elements related to the possible existence of an unauthorized control by Veneto Banca on BIM (Banca Intermobiliare di Investimenti e GestioniSpA) in the form of the dominant influence and consequently a formal request was made for the acquisition of BIM's control by Veneto Banca. In December 2010, the supervisory approved the operation but asked VB to avoid, for the next 24 months, from any further acquisition. Moreover, the supervision sent the request to proceed quickly with the integration of the acquired banks and the strengthening of capital. At the end, in 2011 there was the merger by incorporation of Banca Intermobiliare di Investimenti (BIM) in Veneto Banca. From the 2012 the situation started to get worse especially for the severe economic conditions and the bad credit policies of the previous years. We highlight an emission of € 350 million of convertible bonds in February 2013, then readily converted into equity in an operation concluded on 30th June of 2014. From the inspections of 2013 resulted *operazioni bacciate* not deducted from the capital for an amount of 157 million and credit offering under conflict of interest. The NPL were 18,5% of total loans and the capital (2,5 billion) was above the minimum of about 450 million. The supervisory asked to start finding a partner and for this task was appointed an advisor. The possibility to find a partner gave a negative result, particularly the hypothesis of integration between the two Veneto's bank was closed for problems between the parties. In the 2014 VB was subjected to Comprehensive Assessment composed of Asset Quality review and stress test. The 26th October of 2014 the stress test was very severe with the bank highlighting a capital shortfall of about 714 million. In February 2015 an inspection discovered that Veneto Banca did not deduct from the supervisory capital additional 300 million collected with the practice of the *operazioni bacciate* and from a deeper analysis further € 56 millions of similar operations were discovered.

This amount had to be immediately deducted and this led to a supervisory capital shortfall of the bank. An irregularity typical of the two banks here under analyses was, as already said, the practice of *operazioni bacciate*. We use this term when we talk about the phenomenon of the issuance of credit by a bank to a subject that commits itself to underwrite instruments of capital of the same issuer of the loan. These operations are admitted by the law but are subject

to a strict regulation. The most relevant provision is that the amount of money collected with this kind of operations must be deducted from the supervisory capital. VB financed clients for a greater amount of money and the client had to subscribe the shares of the same bank that issued the money using the amount received that exceeded the amount requested (Bilotta, 2017).

We can now present the other Veneto's bank, Banca Popolare di Vicenza. An inspection of March 2008 showed bad practices in all the credit process: valuation, monitoring and debt recovery. However, the economic context in that period was positive and the non-performing loans were 5,5% of total loans and the capital was above the minimum of 1 billion. The bank adopted a mechanism to set the shares price that was not related to economic performance and was not valuate by any expert. Only in 2011 the bank changed the mechanism and based the price on the advice of an external expert. The bank further the intervention of the supervisory improved technical profiles (as profitability, credit risk and liquidity) and the governance of the group. So, in November 2011 the limit for new acquisitions was taken out but nevertheless BPV did not enlarge the group during the years even if many times it considered different hypothesis of acquisition. After the little recovery in the economy in the period 2010-2011 a new recession hit the Italian economy through the sovereign debt crisis. The effects were particularly intense on the Veneto bank system with many banks which entered in trouble. In this period the bank started to increase the capital (even with not regular methods, *operazioni bacciate*) and to reduce the lending operations. The inspection of the 2012 showed non-performing loans for 293 million and losses for 112 million not reported by the financial institution. It is important to know that even BPV used *operazioni bacciate* not deducted from the capital in order to increase the capital requirements. Moreover, in 2013 the bank acquired own shares for an amount higher than the limit reported from the law. The institution created some internal rating models in order to calculate the capital requirements but in 2014 this was not accepted by the supervisory for the weaknesses implicit in the model. As reported before, BPV made use of *operazioni bacciate* for an amount not deduced from the supervisory capital of 500 million. The operation was based on clients which, with the loans made by the bank, acquired shares and then it was granted by the institution the reselling of the shares for a fixed amount. This could guarantee some profits for the clients. After some other inspections, the shares issued through this process amounted to 1,1 billion creating losses on capital, due to worsening of clients' portfolio, for about 1.3 billion

As it is reported above, it is possible to understand how the banks were affected by the same problems in the same period. So, during the 2015 the events of the two institutions become more connected. Indeed, during that year both suffered a liquidity problem with BPV that lost

2,5 billion of funds while VB about 4 billion. The banks prepared a plan to overcome the financial trouble. The plan provided the transformation of the banks in S.p.A. (limited liability company), an increase of capital (1 billion for VB and 1,5 billion for BPV) and the market listing. The shares price, during the transformation, passed from 48 to 6,3 euro for BPV and from 30,5 to 7,3 for VB. In both cases the market offering of shares at price of 0,10 euro was not successful. In the first part of 2016 Atlante fund, a fund composed with non-state resources, acquired more than 99% of BPV capital and the 97,64% of VB capital. After this operation the merger between the banks was not possible due to lack in investors financial resources and the exposition on the media led to further decrease of funding. The bank required the state intervention, but the European Authorities did not permit it because for them, following the BRRD, the resources of the bank were enough to cover the next losses. The bank entered officially in financial trouble as declared by the Single Supervisory Mechanism and the non-presence of the public interest. The banks were put in *liquidazione coatta amministrativa* (LCA) and Intesa San Paolo was found as the acquirer of the two banks. However, the non-performing loans were not transferred to the acquirer but to S.G.A., a financial institution controlled by the Italian Ministry of Finance, which can manage the losses in a medium-long term period. Intesa San Paolo asked to the authorities that the capital of the bank would not be touched and to compensate the costs from a restructuring of the branches acquired (included the expenses for the personnel) the Department of the Treasury gave 4,8 billion to the buyer (Baglioni, 2017). It is important to notice that the Treasury did not receive any share and so it cannot receive money back by selling those shares. At the same moment, the state granted a guarantee for a maximum of 12,4 billion even if the expected value of the losses is much less (about 400 million). The shareholders and owners of junior bonds suffered the losses because their titles were not transferred to Intesa San Paolo and the major shareholder, the Atlante fund, lost all the sum paid the year before. The FITD offset the losses of the junior bonds. From what reported above is possible to understand that the operation to solve this case was a rescue conducted by the state.

3.5: Three banks of Romagna

The three banks here under consideration are: Cassa di Riaparmio di Cesena (CR Cesena), Cassa di Risparmio di Rimini (Carim) and Cassa di Risparmio di San Miniato (Carismi). These banks are the smallest of the institutions analyzed in this chapter. These banks, as in the other cases, are reported together because they operated in the same territorial context and even because they were subjected to a common conclusion. CR Cesena the 19th May of 2016

requested at the *Schema Volonario* (see chapter 1) the intervention for increase the capital to give a solution to financial troubles of the institution (FITD, 2017). The CR Cesena operation of recapitalization was based on an increase of capital of 280 million, to reach the minimum threshold required to operate. Moreover, it is given to the shareholders of CR Cesena free warrants to subscribe a future capital increase of the bank until a maximum of 55 million. The 23rd September of 2016, after the authorization of the ECB, the scheme became the owner of CR Cesena with a stake of 95.3%. Carim and Carismi, respectively the 4th October of 2016 and the 4th January of 2017, asked to the *Schema Volonario* to recapitalize them because they were not able to collect capital by their own. The scheme to evaluate this case considered the hypothesis of a *liquidazione coatta amministrativa* and the refund by banks of their customers of about 2,7 billion with a negative consequence for the banks. So, to solve this situation definitively it was supposed the intervention of an acquirer supported by the scheme. Different parties were potentially interested but at the end the choice, even from the supervisory authority, was Crédit Agricole Cariparma because it gave more certainty in respect of other parties to solve the crisis of Carim and Carismi. However, it was considered not only the acquisition of these two banks but Crédit Agricole Cariparma was also interested in acquiring Caricesena. The buyer bank formally proposed its offer the 19th April 2017. Subsequently Crédit Agricole Cariparma presented the need to obtain other resources, 90 million, to respect the parameters of the offer. So, the 28 July 2017 the scheme approved the operation and increased the quote from 700 million to 795 million of which 5 million for the functioning of the scheme, the 29th September 2017 the contract between the banks and the scheme was signed. The contract provided a spin-off of NPL to the end of reaching a NPLs ratio not higher than 9%. This was possible thanks to a disposal of a portfolio of about 286 million to Algebris fund and the securitization of a portfolio of about 2,8 billion euro. Moreover, the scheme recapitalized the banks for 464 million in order to cover the costs for the due diligence phase, to align the NPLs value to the disposal price and reaching a CET1 ratio for the three banks of 10,7%.The recapitalization was 194 million for Carim, 200 million for Carismi, 70 for Caricesena. At the and what required by the contract was the disposal of the three banks for a sum of 130 million. As we have seen the three banks were rescue by the *Schema Volonarioto* avoid a worse conclusion for these institutions. The intervention of this scheme is pretty much like the intervention occurred with TERCAS. However, these banks were under analysis because the intervention of the scheme happened after the introduction of BRRD and, as we have seen previously, the voluntary part of FITD was mainly introduced in order to bypass the legislation about the state aid. In summary, even if there is not a direct intervention of the state, we can identify an aid from this if we take into consideration the

scheme and the support in order to rescue the banks before any deeper crisis of the institutions.

From these cases we can learn something about the entrance in crisis of an institution and the subsequent exit thanks to the intervention of the state. What we showed highlights that the banks were not only mined by the economic crisis, with the worsening of their loan portfolio, but they were also subject to governance problems or bad strategies which led the bank to require the intervention of the authorities. Moreover, we can have a knowledge about the methods used to bailout these banks to understand how the authorities act when they intervene to rescue an institution. Through this is possible to take some evidences about the specific interventions put in practice and this can be useful for further bank bailouts, in order to adopt the best methodology when it is time to give financial support to a bank in financial trouble. Specifically, for our thesis is relevant also the time threshold used to study the Italian bank bailout. This threshold is identified with the intervention of the state in the rescued banks. For what concern these banks we pointed out problems of different nature, the repurchase agreements of MPS, the strong authority of the foundation on the four banks of center Italy, the *operazioni baciate* and the selling of shares to customers for BPV and VB, the governance problems of Carige between the owners and the top management. So, it was not just a matter of bad performances suffered because of the crisis but also for actions undertaken by the managers and owners of the banks. Considering the methods used by the state to intervene, we can split these in two ways with a common characteristic. Indeed, MPS and Carige were not sold to third parties while the other banks were rescued even with the intervention of a third party. About MPS, the state intervened through the capitalization, liquidity and guarantees at the beginning of August 2017. For Carige the state authorized the concessions of guarantees and liquidity in January 2019 while the capitalization happened mainly with the intervention of FITD and the SV at the end of 2019. About the other banks we can say that all of these were merged with other banks with the aid of the state. For Carife, Banca delle Marche, Banca Etruria and Carichieti after the disposal of the NPL and the constitutions of bridge banks, these were acquired by other Italian banking group. Carife was merged in BPER Banca the 30th June of 2017 while the other in UBI Banca the 10th May of 2017. The National Resolution Fund issued guarantees and a capital increase of 713 million. Similarly, VB and BPV were merged in Intesa San Paolo but differently from before the state gave money to the buyer but it did not receive any shares back and it allowed guarantees. For the three banks of Romagna we can see that they were merged in Crédit Agricole with a recapitalization of the *Schema Volontario*. To conclude, the banks were subject to different processes: MPS simply received the state aid, Carige before the financial state support passed

through *amministrazione controllata*, the four banks of center Italy were subjected to resolution mechanisms, Veneto's banks were put under *liquidazione coatta amministrativa* and the three banks of Romagna were only sold without any special measure.

3.6: Research design and methodology

In this section is described the method and the research design adopted to analyze the banks above reported. As we have already seen, in this thesis we try to give some knowledge about the Italian bank bailout with the main objective to understand if the solutions adopted were appropriate and so if they can be used for future bank crisis. Indeed, through the analysis of the most recent bank cases is possible to learn how to act to save institutions in financial trouble in this new context. The context mentioned is that introduced by the European legislator with the BRRD which is the new rule set, defining the borders where the authorities can intervene in case of bank crisis. So, for this, to study the Italian bank bailout after the introduction of the BRRD is helpful for the next possible bank rescues. To be more precise, in this work we try to extract insights useful for bank rescues, through the understanding of the causes which led to bailout Italian banks and pick up economic effects on the single institution of the applied rescue methods. In analyzing this, however, we came up against problems of different nature. Firstly, the Italian bank bailout after the intervention of BRRD is limited to a restrict number of financial institutions and this imply to exclude analysis methods which require a large sample to work, as for example econometric models. Another critical aspect is that some banks which were object of financial aid are not present anymore because they were merged with bank groups. Obviously, this is a problem because it is not possible to observe directly on the institution the effect of the state aid before and after the intervention. Then, the last problem is that the time from the bailout is not wide and so we have a limited number of years to observe the impacts of rescue methods. So, after the explanation of the characteristics of our study, the method used to analyze the banks is that used by Rovera and De Sury (2016) which studied the bail out of some Italian banks through a financial statement analysis. These researchers in their studies analyzed the banks proposed in the thesis but with the exclusion of Carismi, Carim and Carice. Moreover, they used a timeline common for all the banks based on the last financial statement available for all the institution of the group considered. The timeline for the first group is the 2012 (Rovera and De Sury, 2016) and the 2015 for the second group (Rovera and De Sury, 2017). This method is considered the best to find an answer to our questions and in our study, we consider three more institutions that they did not report. We used this method also to analyze the ex-post

phase of the bailout. About the phase subsequent the state intervention, we investigate the financial statement of the banks remained stand-alone (MPS, Carige) while for the banks merged in other banks, we study these last subjects (Intesa San Paolo, UBI banca, Crédit Agricole and BPER). To conclude, we can consider the use of this method as an extension of the one used by the researches above reported. Indeed, we include more banks, more years and we make a step further analyzing the banks after the bailout. To study the effects of bailout interventions on banks we analyze their financial statements but, as we explained before, the main problem is that many banks merged with others and so it not possible to retrieve any direct data for these banks. So, for this the financial statements of the banks which acquired the institutions in trouble are analyzed. In this way we try to identify the impact of the interventions on specific banks by making a comparison of the performance before and after the rescue. To perform our analysis 53 financial statements were studied, 13 for the banks under financial trouble and 35 for the buyer banks. The period considered is of six years for the buyer banks to have a certain amount of years as comparison between the past and the ex-post period, so the time goes from the 2013 to 2018. For the rescued banks we use the financial statement that we were able to recover and so we start from the 2013 with Carim and Carismi while from the 2010 with Carice. The financial statements used were those published in the site of the financial institutions. The financial statements used are of the banks stand-alone in order to eliminate possible effects of businesses different from the core activity here analyzed and because the financial aid was given to the parent company and not to subsidiaries. Even for the buyer banks was not analyzed the consolidated financial statements for the same reasons. After the collection of the financial statements, we started by reporting the data of the balance sheets, income statements and other quantitative information. The major data, other than those reported in the balance sheet or income statement, were about the employees, the interests and the non-performing loans. For the employees we collected their number, specifying the number of managers, and the total cost of wages and salary; moreover, we took the cost for statutory auditors and the number of directors. About the interests, we reported the data of interest income for debt securities, loans to customers and due from banks while for the interest expense the interests from securities, due to customers, due to banks and due to Central Banks. For what concern the loans difficult to recover we defined the bad loan, the unlikely to pay and non-performing past due for each bank. After the collection of these data we started with the reclassification of the liabilities highlighting the due to banks, due to customers, the security issued, and the financial liability composed of financial liabilities held for trading and financial liabilities designated at fair value. Then the shareholder's equity is the sum of technical reserves, valuation reserves,

equity instruments, reserves, share premium, share capital and treasury shares; so basically, all the accounts without taking into consideration liabilities and net income, that it is reported separately. To better understand their composition, these accounts are in percentage in relation to total liabilities and shareholders' equity. With this reclassification is possible to highlight the main source of financing for the bank and if the bank creates income. The same approach is used with the assets, reporting the value of due from banks, loans to customers and financial assets; the latter are composed of financial assets held for trading, financial assets designated at fair value and financial assets available for sale. Due from banks, loans to customers and financial assets are reported also in relation with the total assets so that it is possible to have a measure of the importance of these accounts for the banks. This structure permits to understand how the bank uses the sources of funding and the most relevant assets used by institutions in conducting their business. After the reclassification of the balance sheet, it is now the time for the reclassification of the income statement. The focus is on the interest margin, net interest and other banking income and operating expenses with the specification of personnel expenses. The first is given by the difference between interest income and interest expenses while the second is the interest income plus: fees and commissions, dividends, results of trading and hedging, profits and losses from financial assets and liabilities. This permits to understand the income statement composition, the impact of costs in relation to the source of profit and the importance of personnel expenses on costs. After this reclassification we can pass to describe the impact of cost and income. The costs are divided in interest expenses, fee and commission expenses and operating costs; and they are reported as percentage calculated in relation to the sum of these costs. This is useful to know the impact of the different costs considered. The same approach is conducted with the positive components: interest income, fee and commission expenses and dividends. These are reported in percentage as the costs and they are used to identify the principal stream of income. For what concern the financial assets, it is studied their economic performance through the ratio between the sum of profit and losses on trading, fair value adjustments in hedge accounting, profit and losses on disposal or repurchase of financial instruments, and the total assets. With this ratio is possible to consider the relevance for the institute of the financial instruments, and so activities in addition to those based on customers and banks. To evaluate the economic performance, it is used the ROE (return on equity). This ratio is calculated putting the net income at the numerator while the sum of net income and equity at the denominator. With the ratio is possible to understand the profitability of the equity but, above all, it is used in order to understand how it changes year by year, assessing the impact of government intervention and the financial trouble experienced by the financial institutions

here under consideration. Another ratio particularly relevant is the leverage, calculated as total assets on equity. This kind of ratio gives us the knowledge about the use of liabilities as source of financing for the institutions. With this ratio we can also identify the strategies adopted by the banks for financing themselves and the ability to collect equity during the period of financial trouble. Fundamentals for a bank are the interests and so in this analysis are calculated the interests rate obtained by the institutions. These are found as a ratio between the interest income (or expense) and the corresponding account in the balance sheet. So, as an example, the interest rate for loans is calculated as the ratio between the income of interest loans to customers and the account in balance sheet due from banks. With this operation we have the interest rate that the bank used for a year and we can use it to evaluate the average interest rate for the period considered. Moreover, it is possible to find the spread, the difference between the income interest rate and expenses interest rate, this is particularly relevant because it gives indication about the ability of the institution to create profit through the application of interest rates. Another point to focus our attention is the personnel cost. As said before, we individuated the numbers of employees, of managers and directors. These are useful to consider the average cost per year of each of these figures to understand which position affects more the costs of a financial institutions. As last point we analyze the loans difficult to recover and to identify their impact we calculate a ratio where at numerator there are bad loans while at the denominator loans to customers. We made the same with the sum of bad loans, unlikely to pay loans and non-performing past due loans always compared with loans to customers. This ratio gives us the dimension of the impact of troubled loans in the institution. With the sum above mentioned is possible to calculate a ratio called Texas ratio, this is calculated comparing the loans in trouble and the equity. When the ratio is above the 100% the situation is not positive for the bank because this could suffer a loss of the same amount, or higher, than the equity.

Chapter 4: Presentation of the results

4.1: The banks before the bailout

In this section firstly we report the results obtained by the researchers already mentioned which conducted a financial statement analysis on Carife, Banca delle Marche, Carichieti and Banca Etruria (Rovera and De Sury, 2016) and MPS, Carige, BPV and VB (Rovera and De Sury, 2017). Through the analysis of these banks the researchers try to find some reasons that can explain the financial trouble of the institutions and so the further intervention of the state. So, we analyze their conclusions to have a clear idea of the condition of the banks before the bailout and the problems which led to a rescue. This is for us a starting point to go deeper and understanding the ex-post impact of the bailout on banks involved in the rescue mechanism. The researchers find for all the banks a business model too much centered on the traditional activity of lending to customers, with a reduced propension of new businesses based on fee and commissions rather than interest rates. Another common fact is the increasing of operating costs mainly due to the number of employees and this conducts to a decrease of efficiency of the banks. Moreover, for what concern Carife, Banca delle Marche, Carichieti and Banca Etruria they find that these banks were not capitalized enough to tackle the low quality of their assets. Then they analyze the financial statement of bridge banks and they find a high reduction of non-performing loans even if the earnings are not enough to cover the operating costs. For what concern MPS, Carige, BPV and VB the non-performing loans are a component of problem for these institutions presenting the ratios about bad loans worse than system. So, we can summarize the problems which affect these banks creating the conditions for their financial trouble and the consequent state intervention. In these banks, it is easy to find common problems of loans portfolio quality, of a limited efficiency due to operating costs led by personnel expenses, of insufficient capitalization in relation to the quality of assets. The main aspect on which these problems can be included is the traditional business model based on the intermediation with many branches spread in the territory, with increasing costs and a competition increased by new models of bank businesses introduced with the new technologies.

Looking at the studies proposed above we did not mentioned Carice, Carismi and Carim and so we analyze these banks in order to understand if even these institutions were affected by the same problems of the banks showed before.

Table 1: Liabilities and equity - percentage in relation to total assets

	Carim							
				2013	2014	2015	2016	2017
Due to banks				17,26%	17,75%	15,29%	16,21%	16,69%
Due to customers				56,82%	54,90%	59,75%	60,27%	57,44%
Financial liabilities				15,41%	17,69%	15,57%	16,72%	15,29%
Securities issued				15,38%	17,64%	15,44%	16,70%	15,28%
Equity				6,84%	7,09%	7,40%	7,47%	11,55%
Capital and reserves				6,71%	6,99%	7,28%	7,50%	5,60%
Net income (loss)				0,14%	-0,23%	-1,02%	-2,32%	-4,41%
	Carice							
	2010	2011	2012	2013	2014	2015	2016	2017
Due to banks	9,48%	11,77%	19,68%	13,77%	14,22%	11,64%	4,70%	10,02%
Due to customers	43,93%	39,63%	37,90%	52,37%	52,74%	61,42%	68,86%	69,09%
Financial liabilities	34,77%	37,10%	31,16%	24,69%	23,90%	21,46%	13,96%	8,27%
Securities issued	34,66%	36,96%	31,06%	24,63%	23,81%	21,23%	13,66%	8,26%
Equity	8,82%	8,72%	8,10%	6,18%	6,53%	8,33%	10,43%	11,06%
Capital and reserves	5,85%	6,01%	5,55%	4,44%	4,85%	6,06%	10,51%	11,31%
Net income (loss)	0,13%	0,35%	-0,11%	0,30%	0,08%	-5,77%	-1,80%	-2,97%
	Carismi							
				2013	2014	2015	2016	2017
Due to banks				17,44%	11,37%	17,22%	18,17%	18,29%
Due to customers				47,36%	53,25%	51,39%	57,28%	58,78%
Financial liabilities				26,27%	25,33%	23,06%	16,52%	11,31%
Securities issued				14,14%	18,59%	17,59%	12,17%	8,91%
Equity				5,84%	6,67%	7,62%	6,72%	12,28%
Capital and reserves				5,03%	5,61%	6,70%	6,82%	5,70%
Net income (loss)				0,18%	0,27%	-2,07%	-1,67%	-5,95%

About the three banks of Emilia-Romagna we start by analyzing their financial statements. As it is possible to notice the main source of financing, for all the banks, is the due to customers and for Carim this remain stable during the years while for Carice and Carismi it increases during the period considered. The second main source is not so easy to identify, indeed, for Carim the due to banks and the financial liabilities have the same weight and they stay stable during the time with a percentage comprise between the 15% and the 17%. For Carice and Carismi the situation is a little bit different because in the last periods of their activity the due to banks became more important than financial liabilities that were the second liability for the banks. Then as last observation we can say that the securities issued were the major part of the financial liabilities for Carim and Carice while for Carismi there are also other relevant securities. We can now focus on the net income and as it possible to see all the banks started to have big losses in 2015 and they finished to suffer even higher losses in 2017.

Table 2: Leverage

Carim							
			2013	2014	2015	2016	2017
			14,31	14,58	15,66	19,43	14
Cesena							
2010	2011	2012	2013	2014	2015	2016	2017
11,17	11,017	12,52	15,45	15,12	39,18	11,58	12,36
Carismi							
			2013	2014	2015	2016	2017
			16,61	14,4	18,02	19,81	15,8

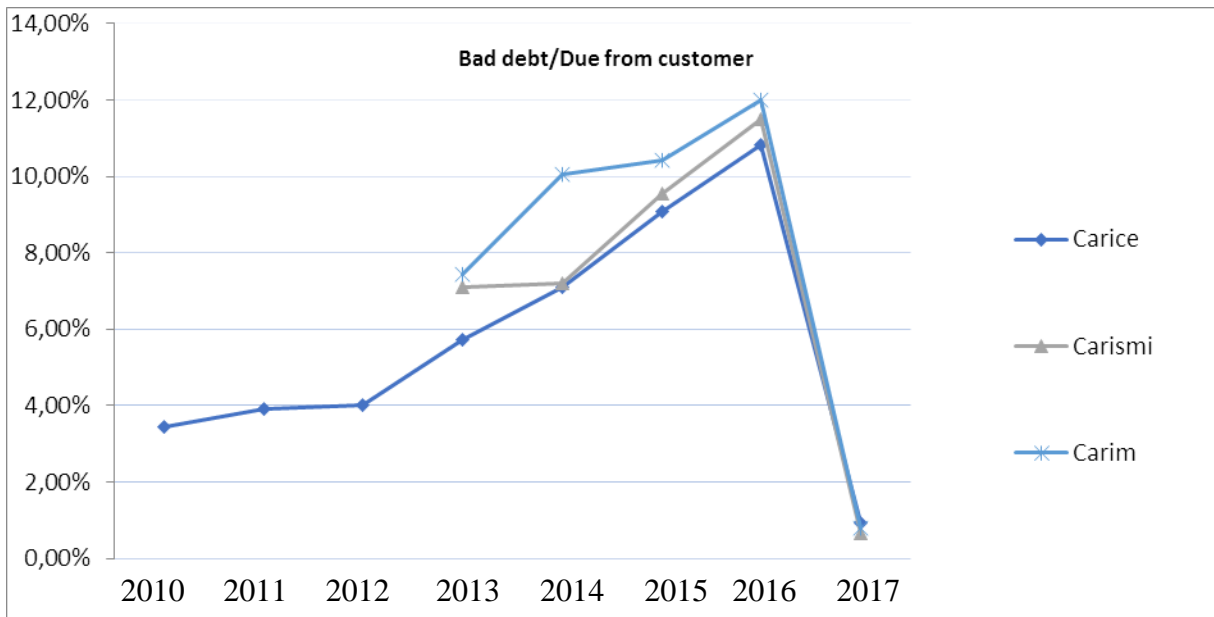
In the table above there is the evidence of leverage and so the use of source of financing other than equity. As we can observe the banks follow a similar path in 2013 and 2014 but in 2015 Carice has a huge increment because the bank registers a high loss in that year, however the following year it decreases a lot.

Table 3: Assets percentage in relation to their total

Carim								
				2013	2014	2015	2016	2017
Due from banks				1,24%	0,87%	1,41%	0,99%	0,77%
Due from customers				62,34%	62,18%	61,50%	65,85%	53,70%
Financial assets				28,76%	28,59%	27,42%	23,19%	23,31%
Carice								
	2010	2011	2012	2013	2014	2015	2016	2017
Due from banks	4,28%	4,93%	2,70%	1,45%	2,43%	0,88%	1,75%	1,27%
Due from customers	80,71%	77,39%	65,86%	68,97%	65,67%	69,37%	69,53%	50,47%
Financial assets	7,91%	10,13%	24,67%	23,90%	25,25%	20,41%	18,15%	18,61%
Carismi								
				2013	2014	2015	2016	2017
Due from banks				2,65%	2,89%	1,07%	0,76%	0,80%
Due from customers				66,83%	68,09%	70,37%	71,66%	50,73%
Financial assets				23,57%	20,69%	18,95%	14,65%	11,93%

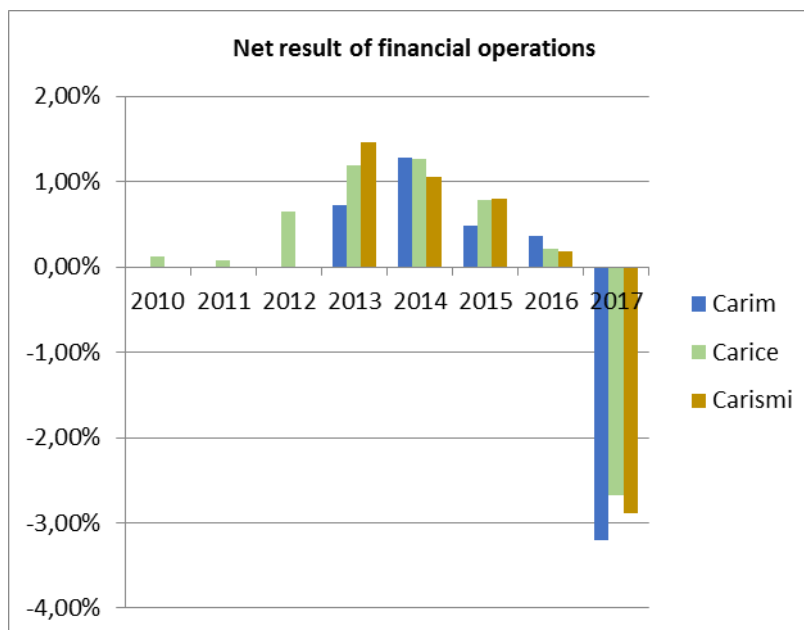
For what concern the assets we can notice that as previously the main account is in relation to customers and it is much higher than the other. Differently from before it is possible to identify surely for all the banks the second main asset, financial assets.

Figure 3: Chart of bad debt in relation to due from customer



From the chart above it is possible to observe the trend of the bad loan compared to due to customers. For all the banks it is possible to observe a common path, indeed all the banks saw the increase of this ratio but in 2017 there was a huge change, this is due to the intervention of the state in that year by taking out the NPL from the banks.

Figure 4: Chart of financial operations



In the second chart we can understand the profitability of the financial operations and from our data these results are always profitable but with a decreasing path. The 2017 was the worst year with a lot of losses sign of the huge difficulties of the banks during the period.

We start now to analyze deeply the income statement. As it is possible to notice the operating costs for all the banks are the main negative component and they are increasing from 2013 to 2018. About the operating costs the personnel expenses are the most relevant component for these financial institutions. The other relevant component is interest expenses while fee and commissions are limited. About the positive components, interest income is the major source of income, but it shows a decreasing path along the period considered. Dividends are not significant while fee and commission are increasing during the period but these for the significant decrement of interest income.

Table 4: Income statement percentage

Carim								
				2013	2014	2015	2016	2017
Interest expense				44,91%	36,43%	28,65%	22,72%	12,84%
Fee and commission				1,30%	1,46%	1,71%	1,57%	0,97%
Operating costs				53,79%	62,10%	69,64%	75,71%	86,20%
Personnel cost/operating costs				65,03%	65,26%	65,57%	54,54%	59,15%
Interest income				75,96%	73,47%	66,69%	62,40%	56,30%
Fee and commission				23,60%	24,68%	31,00%	36,16%	42,07%
Dividends				0,43%	1,85%	2,31%	1,44%	1,63%
Carice								
	2010	2011	2012	2013	2014	2015	2016	2017
Interest expense	37,75%	46,86%	47,25%	49,47%	41,44%	29,56%	14,41%	11,30%
Fee and commission	2,13%	2,01%	3,66%	3,48%	3,00%	2,20%	1,62%	1,94%
Operating costs	60,13%	51,13%	49,10%	47,05%	55,55%	68,24%	83,97%	86,76%
Personnel cost/operating costs	72,99%	74,16%	63,21%	76,32%	68,16%	59,46%	65,80%	44,93%
Interest income	73,68%	74,60%	78,20%	78,19%	74,20%	69,43%	65,09%	52,15%
Fee and commission	23,76%	23,08%	20,17%	21,40%	24,19%	28,45%	33,12%	46,13%
Dividends	2,56%	2,32%	1,63%	0,42%	1,60%	2,12%	1,79%	1,72%
Carismi								
				2013	2014	2015	2016	2017
Interest expense				43,61%	38,26%	32,19%	24,67%	12,98%
Fee and commission				1,05%	1,10%	1,28%	1,00%	0,58%
Operating costs				55,33%	60,64%	66,53%	74,33%	86,44%
Personnel cost/operating costs				66,56%	68,62%	61,26%	59,86%	59,03%
Interest income				68,95%	52,15%	73,11%	63,09%	60,26%
Fee and commission				29,14%	46,13%	26,37%	34,98%	38,10%
Dividends				1,91%	1,72%	0,53%	1,93%	1,64%

Looking at the interests the highest interest rate is coming from customers but for what concern the interests expenses the financial liabilities present the highest rates. Looking at the year by year interest rates, it is possible to notice that the spread is almost always positive

even in the last years of activity, but it has a decreasing trend for all the banks. As we saw previously the operating costs are the main negative components and these are led by the personnel expenses, so we focus on them now. The number of employees was reducing constantly during the period for all the banks and the cost for directors and statutory auditors is elevated if it considered that their number is much smaller than employees. However, the impact of their wages and salaries is not so elevated in relation to the total and what impact more is the overall number of employees. The last point about the income statement analysis is about the ROE. For all the financial institutions the ratio is strongly negative with the 2015 which marks the turning of the banks' profitability.

Table 5: Average interest rates

Average interest income rate			
	From customer	From banks	Financial assets
Carice	3,51%	0,48%	0,46%
Carismi	3,00%	0,77%	1,24%
Carim	3,05%	0,17%	1,34%
Average interest expense rate			
	To customer	To banks	Financial liabilities
Carice	-1,03%	-0,64%	-5,02%
Carismi	-0,57%	-0,18%	-1,00%
Carim	-1,03%	-0,18%	-2,59%

Table 7: ROE

				2013	2014	2015	2016	2017
San miniato				2,93%	3,93%	-37,55%	-33,13%	-94,06%
				2010	2011	2012	2013	2014
Cesena	1,46%	3,89%	-1,43%	4,56%	1,19%	-226,31%	-20,83%	-36,76%
				2013	2014	2015	2016	2017
Carim				2,06%	-3,32%	-15,94%	-45,16%	-61,82%

Table 6: Interest rates

	Int income rate	Int expense rate	Spread
Carice			
2010	1,58%	-1,74%	-0,17%
2011	1,91%	-2,49%	-0,58%
2012	2,30%	-2,09%	0,21%
2013	2,25%	-2,08%	0,17%
2014	1,99%	-1,65%	0,34%
2015	1,94%	-1,15%	0,79%
2016	1,66%	-0,79%	0,87%
2017	1,64%	-0,40%	1,24%
Avg	1,91%	-1,55%	0,36%
Carismi			
<u>2014</u>	2,74%	-1,04%	1,69%
<u>2015</u>	3,10%	-0,80%	2,30%
<u>2016</u>	2,27%	-0,63%	1,64%
2017	1,99%	-0,51%	1,47%
Avg	2,52%	-0,75%	1,78%
Carim			
2013	3,84%	-2,15%	1,69%
2014	2,77%	-1,33%	1,44%
2015	0,03%	-0,85%	-0,83%
2016	1,53%	-0,61%	0,92%
2017	1,11%	-0,43%	0,67%
Avg	1,85%	-1,08%	0,78%

Table 8: Number and cost of employees

Carim				2013	2014	2015	2016	2017
Employees				746	748	670	674	602
Managers				7	7	9	9	6
Employee cost (€)				41010000	44220000	46290000	37201000	27367000
Directors and auditors' cost (€)				520000	520000	670000	873000	1284000
Average employee cost (€)				54973	59118	69090	55194	45460
Carice	2010	2011	2012	2013	2014	2015	2016	2017
Employees	738	725	716	957	928	898	868	752
Managers	8	8	7	9	10	10	11	9
Employee cost (€)	34784000	33831000	46602000	47211000	45627000	40612000	40764000	32901000
Directors and auditors' cost (€)	825000	632000	615000	883000	541000	589000	533000	577000
Average employee cost (€)	47133	46663	65087	49332	49167	45225	46963	43751
Carismi					2014	2015	2016	2017
Employees					642	635	635	613
Managers					12	13	13	12
Employee cost (€)					34521000	32100000	33686000	32178000
Directors and auditors' cost (€)					1786000	1682000	1486000	1429000
Average employee cost (€)					53771	50551	53049	52493

To conclude we have a look at the Texas ratio, as we reported in the last part of the previous chapter the ratio indicates a bad situation for the bank when it overcome the limit of 1. For what reported all the banks here have a dangerous situation and what claim the attention is the 2017. In this year, the banks received a recapitalization and at the same time the NPL were disposed, so this action reduced the total ratio in 2017.

Table 9: Texas ratio

	2010	2011	2012	2013	2014	2015	2016	2017
Carim				3,32	3,025	3,21	3,11	0,48
Carice	0,83	0,86	1,01	2,69	2,71	7,58	2,47	0,63
Carismi				2,77	3,275	3,72	3,24	0,55

To conclude we can individuate the financial troubles which conduct these banks to be saved by the intervention of the authorities. The main activity for these banks was related to the intermediation with customers and so the business model was a traditional one mainly based on the interests as source of income. Another critical point is the quality of the loans that got worse quickly in few years, from 2017 to the end of the activity of these banks. The operating costs were the main component of these banks and what matter is that these costs were driven principally by the salary expenses, creating some problem of efficiency

4.2 Ex-post bailout analysis

At this point we can now focus our attention to the ex post bailout, to understand the impacts of the bailout operations. A special attention goes to Carige because the rescue happened recently and there is not the financial statement of 2019 available at the moment on which the thesis was written. So, we consider it for a deeper analysis to understand better the situation of this institution but not to take evidence about the impact of the state intervention. We use it also as comparison for the banks of which we have the financial statements after the rescue. In this section we consider the buyer banks (ISP, UBI, CA and BPER) and MPS. We start by analyzing the balance sheet as reported below.

Table 10a: Liabilities and equity - percentage in relation to total assets

	MPS					
	2013	2014	2015	2016	2017	2018
Due to banks	22,99%	21,88%	18,18%	28,23%	20,60%	22,48%
Due to customers	45,97%	50,83%	53,22%	48,01%	51,52%	54,74%
Financial liabilities	24,46%	19,35%	19,46%	16,59%	16,35%	11,47%
Securities issued	18,90%	16,53%	16,94%	14,52%	15,41%	10,67%
SH equity	3,23%	5,71%	4,99%	10,97%	9,66%	6,75%
Capital and reserves	3,85%	6,17%	5,09%	6,01%	9,85%	7,12%
Net income	-0,85%	-2,98%	0,26%	-2,58%	-2,21%	-0,09%
	Carige					
Due to banks	33,85%	16,13%	15,43%	15,37%	21,29%	23,58%
Due to customers	22,40%	37,14%	37,47%	51,69%	49,56%	54,22%
Financial liabilities	34,26%	35,45%	32,08%	21,68%	16,61%	10,22%
Securities issued	30,61%	31,29%	29,65%	19,71%	15,02%	10,06%
SH equity	11,84%	9,17%	10,52%	9,21%	10,49%	8,90%
Capital and reserves	9,13%	8,78%	8,08%	9,19%	8,52%	9,45%
Net income	-6,37%	-2,53%	-0,68%	-1,24%	-1,60%	-1,29%
	ISP					
Due to banks	27,24%	26,58%	29,72%	31,06%	34,10%	30,60%
Due to customers	26,29%	27,68%	29,42%	32,92%	33,55%	39,45%
Financial liabilities	32,78%	31,59%	27,32%	22,67%	19,09%	17,65%
Securities issued	29,88%	27,43%	23,55%	18,95%	16,23%	14,55%
SH equity	11,11%	9,77%	9,57%	9,32%	8,56%	8,23%
Capital and reserves	3,20%	3,06%	2,91%	2,80%	2,47%	2,55%
Net income	-1,00%	0,30%	0,66%	0,39%	0,96%	0,70%

Table 10b: Liabilities and equity - percentage in relation to total assets

	UBI					
	2013	2014	2015	2016	2017	2018
Due to banks	32,86%	25,81%	22,39%	27,01%	13,90%	13,82%
Due to customers	9,77%	9,53%	10,40%	20,49%	52,97%	54,20%
Financial liabilities	43,46%	51,51%	53,10%	39,88%	22,72%	21,61%
Securities issued	40,87%	49,27%	51,25%	38,55%	22,30%	21,18%
SH equity	12,39%	12,79%	12,20%	11,13%	7,68%	6,84%
Capital and reserves	6,21%	6,21%	6,41%	6,38%	5,12%	4,44%
Net income	0,10%	-1,24%	0,17%	-0,62%	-0,01%	0,38%
	CA					
Due to banks	14,75%	16,50%	11,60%	13,80%	15,85%	14,31%
Due to customers	43,43%	43,98%	51,14%	53,09%	53,15%	55,75%
Financial liabilities	26,37%	23,37%	21,12%	17,41%	16,39%	14,75%
Securities issued	25,88%	22,88%	20,86%	17,20%	16,26%	14,64%
SH equity	10,64%	10,62%	10,86%	10,76%	10,78%	10,58%
Capital and reserves	4,04%	4,05%	4,18%	4,11%	3,95%	3,91%
Net income	0,31%	0,33%	0,52%	0,46%	0,43%	0,45%
	BPER					
Due to banks	21,52%	16,87%	17,17%	23,34%	27,49%	27,81%
Due to customers	41,87%	49,37%	50,00%	50,96%	50,49%	53,31%
Financial liabilities	25,28%	21,00%	19,49%	14,31%	11,09%	8,35%
Securities issued	18,54%	17,03%	17,26%	13,41%	10,72%	8,09%
SH equity	8,32%	9,40%	9,11%	8,68%	7,77%	6,90%
Capital and reserves	6,82%	7,39%	7,22%	6,98%	6,22%	5,48%
Net income	-0,03%	0,03%	0,32%	0,03%	0,35%	0,52%

Table 11: Leverage

	2013	2014	2015	2016	2017	2018
Carige	18,27	15,07	10,15	12,55	11,24	13,15
MPS	42,08	36,65	19,06	11,9	13,42	14,51
ISP	9,89	9,92	9,78	10,29	10,51	11,2
UBI	8,01	8,66	8,08	9,52	13,05	13,84
CA	9,13	9,13	8,79	8,91	8,92	9,06
BPER	12,3	13,89	10,87	11,3	12,85	13,47

Starting with Carige we can see how the first source of funding is due to customer with an increasing path for the years reported. The second source is not so easy to individuate because it changes during the years, indeed we observe a reduction in financial liabilities and an increase in due to banks. During all the period the bank suffered losses. About the MPS we

remember that the intervention started at the end of 2016 and so we look at the financial statements of 2017 to understand possible effects of the intervention on the institution. Firstly, the due to customers remains the main source of financing for all the periods but we do not register any change of importance even in the other accounts. The result of the period is negative for many years but in 2018 it is close to zero after two years of bigger losses. We can now pass to the buyers and for ISP we remember that it acquired the banks in 2017. We notice that the due to banks and due to customers are quite similar for all the period except for 2018 where the due to customers are higher than due to banks. The financial liabilities follow a trend which is decreasing for all the period without any change in 2017. The net income remains positive after the loss of 2013, to notice that it increases in 2017 and 2018 (always in relation to the other liabilities). About UBI and BPER we remember that even for them the purchase happened in 2017. For what concern UBI, for first we can observe that the main liability was financial instruments, but it changed drastically in 2017 where the first source become due to customers. Just to understand the change, between the 2013 and 2016 the average of due to customer was 12,55% while in the next two years it becomes 53,58%. The net income in 2018 turns return positive after 2 years of losses. About BPER we can consider a stability of due to customer around 50% and it is also the main liability for the bank. The due to banks change a little in 2017 and the financial liabilities have a decreasing path for all the period. The net income remains positive for different years with an increase in the last two. Finally, we can consider Crédit Agricole, even for this institute the purchase was in 2017. The composition of the liabilities for this bank find as main source of financing due to customers for all the periods, while financial instruments started decrease for all the period and in 2018 converge to due to banks. Even for the net income the situation is table for the period.

About the leverage, we can observe the high value for MPS in 2013 and 2014 but then it reduced even before the state intervention. About the other banks it is interesting to notice that for all the banks the 2015 was the year with the lowest leverage and after that year it started to increase. It is interest to notice that it is not necessary to have abnormal high leverage to enter in crisis because if we look at Carige, it has not a level so high in regard the other banks. The bank with the lowest leverage is CA while UBI between the 2016 and the 2017 increases the leverage of 3,53 much more than the other periods. Studying the balance sheet, we can observe that for MPS the main assets are due from customers for all the years, then it comes due from banks and as lasts financial assets. It possible to confirm that the sources stay stable for importance along all the period and it does not seem to observe any substantial change after the rescue. For Carige the main account is due from customers and this importance

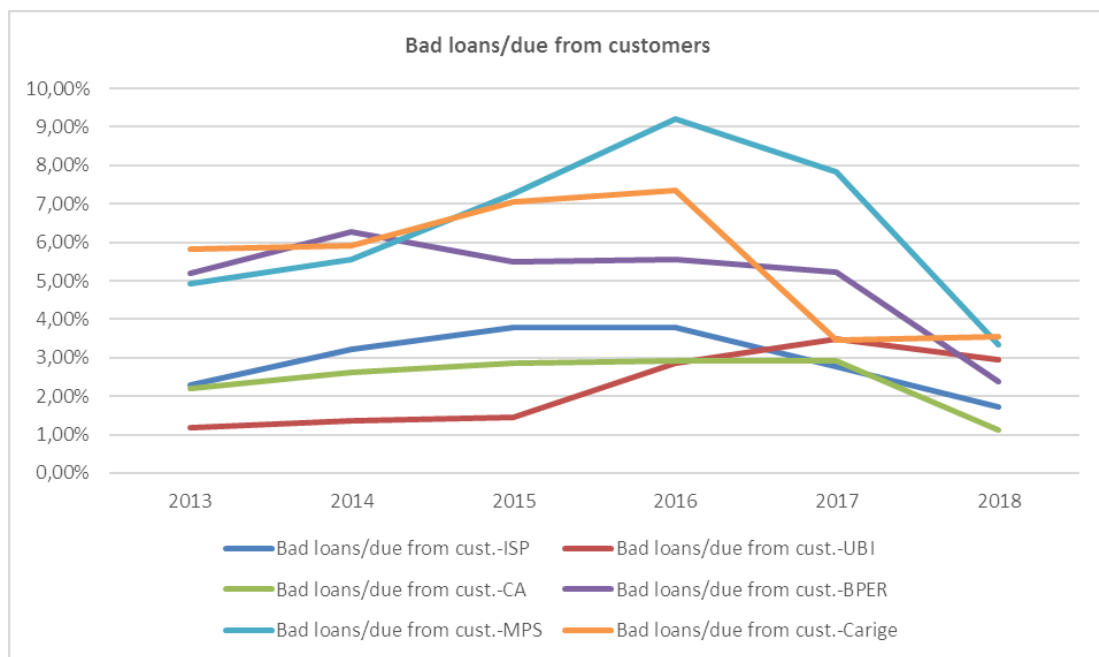
increases during all the period, this is due to a reduction in due from banks and financial assets because due from customers stays around 15 billion in 2017-2018. Looking at the buyer banks, for ISP the composition stay stable for all the period with an increase of due from banks along all the period and a similar situation is possible to find in BPER but here in 2017 and 2018 the due from banks is higher than the other periods. UBI presents a situation where it is possible to observe a deep increase in due from customers in 2017 maintained in 2018, this is due to an increase of due to customers which passed from 37 billion in 2016 to more than 90 in 2017. For what concern CA it is possible to confirm that the bank increased the due from customers in 2018 after a long period of constant due to customers around 28 billion euro, reaching 40 billion. Meanwhile, the due from banks decreases as the financial liabilities in 2018. So, the change in composition is led by all three accounts.

Table 12: assets percentage in relation to their total

	MPS					
	2013	2014	2015	2016	2017	2018
Due from banks	13,30%	21,56%	21,17%	21,95%	19,25%	23,10%
Due from customers	65,24%	56,89%	58,75%	58,86%	55,19%	58,28%
Financial assets	13,81%	13,98%	11,75%	12,24%	12,30%	10,48%
	ISP					
Due from banks	4,26%	4,85%	5,09%	7,33%	9,09%	8,80%
Due from customers	54,93%	52,46%	51,74%	50,30%	51,55%	51,69%
Financial assets	32,58%	34,53%	35,19%	35,22%	32,41%	32,13%
	UBI					
Due from banks	18,25%	18,95%	21,89%	15,45%	5,99%	8,12%
Due from customers	34,05%	31,45%	30,95%	46,80%	73,40%	75,09%
Financial assets	28,73%	31,52%	28,45%	22,41%	12,04%	8,23%
	Carige					
Due from banks	24,54%	17,94%	14,55%	7,30%	11,11%	6,79%
Due from customers	46,29%	54,74%	56,12%	69,72%	65,98%	72,10%
Financial assets	16,23%	12,20%	15,57%	9,22%	8,50%	8,80%
	CA					
Due from banks	6,59%	6,28%	5,58%	8,27%	10,85%	5,55%
Due from customers	72,55%	71,40%	70,98%	72,10%	66,33%	80,00%
Financial assets	10,59%	12,32%	11,52%	10,41%	11,47%	5,31%
	BPER					
Due from banks	2,57%	2,82%	1,77%	2,05%	4,22%	4,68%
Due from customers	75,32%	72,41%	71,34%	70,04%	67,02%	74,68%
Financial assets	14,74%	16,99%	18,88%	21,11%	21,67%	15,32%

From the chart below is possible to have some knowledge about the path of the ratio between bad loans and due from customers. It is interesting to highlight that Carige, MPS and BPER have a similar starting point but BPER decreases the ratio for all the period. Differently, MPS and Carige see increasing their ratio until to reach the top in 2016. For both banks we can see how their ratio approaches at the other financial institutions. ISP and CA after an increase in the first years recover after 2016 while UBI it is the only one which shows an increasing path when the other banks are having an opposite trend but it decreases a little in 2018.

Figure 5: Chart of bad debt in relation to due from customer



The net result of financial operations is showed in the next chart. MPS reports high returns in 2015 and 2017, but in 2018 there is a high decrease even if it is not negative. Carige shows a stability but in the last two years considered even for this institution we see a big loss. The other banks, without UBI, show a quite stable trend in the last years except BPER which in 2015 reach a return higher than the other years. As we can notice, UBI sees a decrement in 2018 after a prolonged period of stability.

Figure 6: Chart of financial operations

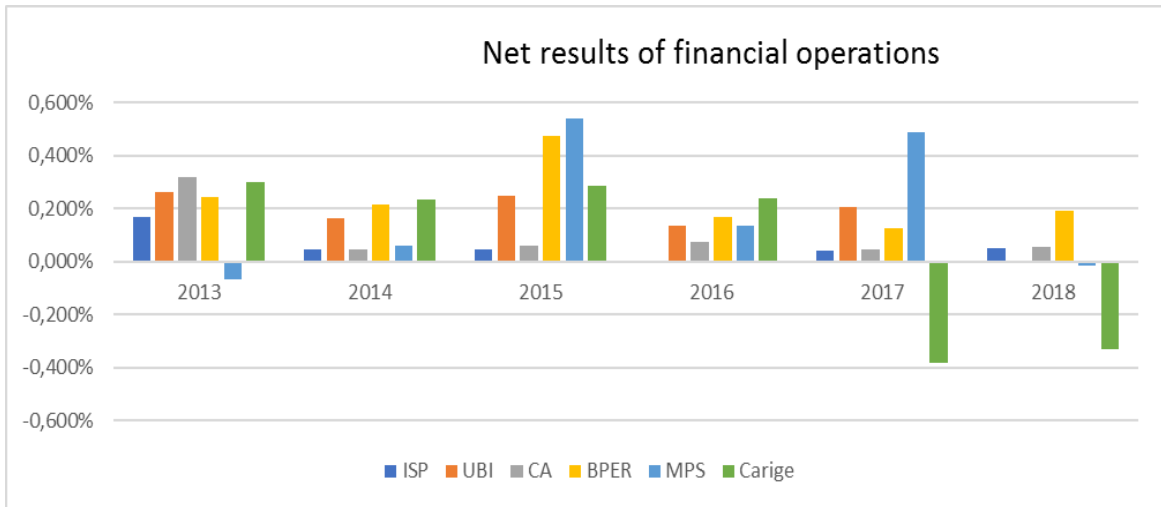


Table 13a: Income statement percentage

BPER	2013	2014	2015	2016	2017	2018
Interest income	72,46%	70,84%	67,36%	65,77%	62,88%	60,00%
Fee and commission	24,14%	26,90%	30,85%	33,06%	34,80%	37,32%
Dividends	4,72%	2,36%	3,40%	2,26%	1,79%	1,17%
Interest expense	49,90%	36,24%	26,30%	22,00%	21,36%	18,39%
Fee and commission	3,44%	2,76%	2,19%	2,36%	2,62%	3,03%
Operating costs	46,66%	61,00%	71,52%	75,64%	76,01%	78,58%
Personnel cost/operating costs	60,74%	57,04%	53,81%	51,71%	53,75%	52,44%
MPS	2013	2014	2015	2016	2017	2018
Interest income	71,80%	69,29%	63,99%	60,29%	58,54%	55,40%
Fee and commission	26,50%	28,80%	33,69%	38,44%	40,68%	42,09%
Dividends	1,70%	1,90%	2,32%	1,28%	0,78%	2,52%
Interest expense	54,26%	46,52%	38,86%	31,50%	20,25%	18,99%
Fee and commission	5,61%	5,44%	5,60%	4,80%	6,21%	5,37%
Operating costs	40,13%	48,04%	55,54%	63,70%	73,54%	75,64%
Personnel cost/operating costs	54,22%	58,91%	55,08%	55,27%	55,33%	54,87%
Carige	2013	2014	2015	2016	2017	2018
Interest income	76,15%	73,76%	67,33%	63,96%	61,02%	57,14%
Fee and commission	19,03%	23,03%	28,68%	33,55%	36,43%	39,97%
Dividends	6,00%	4,58%	5,44%	3,88%	4,07%	4,78%
Interest expense	62,11%	55,29%	45,27%	33,10%	26,73%	24,20%
Fee and commission	6,18%	5,19%	4,48%	4,08%	3,62%	4,54%
Operating costs	31,71%	39,52%	50,24%	62,81%	69,64%	71,26%
Personnel cost/operating costs	73,72%	74,77%	59,02%	51,87%	56,27%	51,37%

Table 13b: Income statement percentage

ISP	2013	2014	2015	2016	2017	2018
Interest income	64,64%	59,24%	52,02%	55,26%	53,19%	46,25%
Fee and commission	20,25%	22,43%	24,33%	29,24%	31,25%	31,46%
Dividends	15,11%	18,33%	23,65%	15,50%	15,56%	22,29%
Interest expense	58,29%	57,40%	48,56%	41,40%	29,57%	26,84%
Fee and commission	4,03%	4,23%	5,14%	6,66%	6,69%	8,80%
Operating costs	37,68%	38,37%	46,30%	51,95%	63,74%	64,36%
Personnel cost/operating costs	40,36%	54,20%	51,74%	50,49%	48,03%	54,95%
UBI	2013	2014	2015	2016	2017	2018
Interest income	78,24%	75,72%	71,84%	63,65%	56,49%	53,93%
Fee and commission	6,03%	5,63%	7,67%	22,95%	40,50%	42,51%
Dividends	15,73%	18,65%	20,49%	13,39%	3,01%	3,55%
Interest expense	39,64%	33,70%	27,08%	19,80%	18,65%	11,68%
Fee and commission	5,15%	4,98%	5,82%	5,19%	6,03%	6,68%
Operating costs	55,21%	61,33%	67,10%	75,01%	75,32%	81,64%
Personnel cost/operating costs	65,45%	69,92%	61,14%	57,60%	58,45%	60,42%
CA	2013	2014	2015	2016	2017	2018
Interest income	69,22%	66,22%	62,69%	57,83%	54,55%	47,34%
Fee and commission	29,22%	31,45%	34,31%	38,47%	41,76%	48,05%
Dividends	1,57%	2,33%	2,99%	3,70%	3,69%	4,62%
Interest expense	35,85%	34,77%	25,71%	17,55%	15,26%	-0,84%
Fee and commission	1,82%	2,14%	2,33%	2,55%	4,46%	3,51%
Operating costs	62,33%	63,09%	71,96%	79,90%	80,29%	97,33%
Personnel cost/operating costs	61,15%	64,92%	58,90%	56,73%	54,57%	56,20%

From the table we can see the restated income statement for the banks. Looking at MPS is possible to individuate some trends in the source of income and expenses. Firstly, a decreasing in importance of interest income, even if it is the first source of income, and an increasing of fee and commission income. For the expenses we can say that the operating costs are the main component, however this is not due to an increase of cost but above all to a reduction in interest expenses during all the period with an acceleration in 2017. The main component of operating costs, as it is reported, is personnel expenses. Carige can be compared to MPS for interest income and fee and commission income with an increasing of the first and a decreasing of the second. Even for the negative components there is a path like MPS but smoother than MPS. About ISP, we see a certain convergence between the positive components and this convergence is not due to a decrease in absolute value of interest income but to an increase of dividends and fee and commission in 2018. For the expenses, the situation is relevant because after the 2017 we assist to an increase in importance of operating costs and a decrease in interest expense.

Table 14: Interest rates

ISP	Expense	Income	Spread	CA	Expense	Income	Spread
2013	1,35%	1,96%	0,61%	2013	0,82%	2,22%	1,40%
2014	1,09%	2,05%	0,96%	2014	0,76%	1,97%	1,21%
2015	0,84%	1,41%	0,57%	2015	0,62%	1,86%	1,24%
2016	0,75%	1,23%	0,47%	2016	0,42%	3,37%	2,96%
2017	0,61%	1,08%	0,47%	2017	0,34%	1,23%	0,89%
2018	0,59%	1,23%	0,64%	2018	0,40%	1,69%	1,29%
AVG	0,87%	1,49%	0,62%	AVG	0,56%	2,06%	1,50%
UBI	Expense	Income	Spread	BPER	Expense	Income	Spread
2013	0,84%	0,83%	-0,01%	2013	1,38%	2,73%	1,34%
2014	0,26%	0,96%	0,70%	2014	1,02%	2,45%	1,43%
2015	0,49%	0,58%	0,09%	2015	0,64%	1,75%	1,12%
2016	0,00%	0,66%	0,66%	2016	0,48%	1,55%	1,07%
2017	0,00%	0,56%	0,56%	2017	0,48%	1,40%	0,92%
2018	0,00%	0,61%	0,61%	2018	0,46%	1,21%	0,75%
AVG	0,27%	0,70%	0,43%	AVG	0,74%	1,85%	1,10%
MPS	Expense	Income	Spread	Carige	Expense	Income	Spread
2013	-1,91%	2,24%	0,33%	2013	-2,18%	3,05%	0,88%
2014	-1,86%	2,08%	0,21%	2014	-1,76%	2,91%	1,16%
2015	-1,54%	2,07%	0,53%	2015	-1,17%	2,63%	1,46%
2016	-1,27%	2,35%	1,08%	2016	-0,96%	2,37%	1,40%
2017	-1,10%	2,14%	1,04%	2017	-0,64%	2,30%	1,66%
2018	-1,00%	2,05%	1,05%	2018	-0,58%	1,91%	1,33%
AVG	-1,45%	2,16%	0,71%	AVG	-1,21%	2,53%	1,31%

It is relevant to say that the percentage calculated in 2017 was purified from the state intervention present in the income statement where it was accounted a contribution of 3,5 billion, indeed the year later the percentage values are pretty similar to 2017. The personnel expenses participate to operating costs always in the same manner without evident changes and UBI sees a particular increase of fee and commission in 2016 and 2017. The interest expenses decrease a lot during the period while we observe a corresponding increase in operating costs and looking at the absolute value, we can say that this is ether for interest expenses and for operating income. For what concern CA we can say that there is a convergence in the positive income components and interest income and fee and commission are about the same amount in 2018. For the negative components we observe the influence of the operating costs and the value extremely high in 2018 but this is due to an increase of operating costs but also for the interest expense that result positive because hedging instruments differential goes into the interest rates. Finally, we can consider the BPER. This institution shows a decreasing trend for what concern the interest income and an increasing

one for fee and commission. The composition, for the expenses, changes during the period and we observe an increase trend of operating cost for all the period and a decrease of interest expenses

Now we can study the interest rates applied for the buyer banks during the period. The interest rate expenses for ISP are decreasing while the interest rate income is raising in 2018 as the spread. About UBI we can consider in the last three years a spread very similar with interest rate expense close to zero. CA in 2017 sees a spread much lower than the year before but then increased in 2018 even if it is under the average of the period. BPER differently from the other banks shows a decreasing path in spread as in the interest income while the interest expenses are stable in the last three years. For MPS we note a spread close very limited in the first three years considered while in the last three we have a percentage stable at 1%. Carige shows a spread always positive and near to the 1,5% from the 2015 to the 2018.

Table 15: ROE

	2013	2014	2015	2016	2017	2018
ISP	-9,84%	3,00%	6,43%	4,05%	10,07%	7,81%
UBI	2,24%	-7,01%	1,11%	-9,16%	6,90%	4,62%
CA	2,81%	2,98%	4,53%	4,14%	3,84%	4,09%
BPER	0,02%	-0,36%	0,33%	3,41%	0,40%	4,27%
MPS	-35,94%	-108,98%	4,89%	-30,68%	-29,62%	-1,35%
Carige	-116,31%	-38,17%	-6,86%	-15,59%	-17,95%	-16,99%

From the analysis of the ROE is possible to conclude that ISP in 2017 has an increase respect the other years and the same we can say for UBI. CA presents a stable situation, BPER instead has a high variability so it is difficult to assess the increase of roe in 2018. For MPS the situation is going better while Carige is not able to recover remaining stable at the level of previous years.

Table 16: Number and cost of employees

ISP	2013	2014	2015	2016	2017	2018
Employees	22975	25216	27.430	30080	33569	44497
Managers	473	480	487	487	574	615
Employee cost (€'000)	1218000	1375000	1489000	1665000	1883000	2514000
Directors and statutory cost (€'000)	8000	8000	8000	6000	6000	8000
Average employee cost (€'000)	53,01	54,53	54,28	55,35	56,09	56,5
UBI	2013	2014	2015	2016	2017	2018
Employees	1428	1444	1475	4.453	16033	16456
Managers	141	135	138	183	293	289
Employee cost (€'000)	128725	140.427	149.901	330.092	833.525	950.114
Directors and statutory cost (€'000)	6.824	6.388	6.502	7.466	6.574	6.259
Average employee cost (€'000)	90,14	97,25	101,63	74,13	51,99	57,74
CA	2013	2014	2015	2016	2017	2018
Employees	5955	5774	5407	5030	5003	6644
Managers	78	74	68	69	65	86
Employee cost (€'000)	315829	305.579	295.385	279.769	291.540	372.615
Directors and statutory cost (€'000)	1048	1.173	1.196	1.150	1.158	1.589
Average employee cost (€'000)	53,04	52,92	54,63	55,62	58,27	56,08
BPER	2013	2014	2015	2016	2017	2018
Employees	4466	7026	6871	6741	6848	6989
Managers	115	158	155	153	149	147
Employee cost (€'000)	270958	380011	378799	377805	393577	419206
Directors and statutory cost (€'000)	4095	5813	4036	4024	3956	4058
Average employee cost (€'000)	60,67	54,09	55,13	56,05	57,47	59,98
MPS	2013	2014	2015	2016	2017	2018
Employees	25.633	24.328	23.092	22.430	21.292	20.250
Managers	328	285	278	266	234	219
Employee cost (€'000)	1196639	1183832	1141210	1109713	1088906	1008569
Directors and statutory cost (€'000)	1981	1772	2212	2565	2304	1596
Average employee cost (€'000)	46,68	48,66	49,42	49,47	51,14	49,81
Carige	2013	2014	2015	2016	2017	2018
Employees	2.464	2.463	2.901	4.339	4.144	3.883
Managers	51	52	49	55	54	45
Employee cost (€'000)	120296	110989	130626	203212	195602	183163
Directors and statutory cost (€'000)	3110	5062	6028	5017	3399	3670
Average employee cost (€'000)	48,82	45,06	45,03	46,83	47,2	47,17

We can now observe the employees' situation of the banks. For MPS we observe a decrease of employees during this period of time as well as the number of managers and consequently a decrease in the employee costs. About Carige we can notice an high increase in the number of employees and this is due because the personnel of other group companies is included in the number. In the periods 2017 2018 all the banks increase the numbers of employees and managers as it is expected after the merger of banks, the only exception is BPER that maintains a stable number during the period. Even if the salary total cost increases the compensation per worker stays stable for all the banks during the period with the exclusion of UBI which reduces its compensation for a single worker in 2017 2018. The cost for directors

and statutory auditors is elevated if we consider that for a single director the compensation is much higher than a simple employee but as absolute is not so impacting. What affect more the operating costs is the number of employees.

Table 17: Texas ratio

	2013	2014	2015	2016	2017	2018
ISP	27%	33%	36%	35%	28%	25%
UBI	15%	15%	14%	29%	71%	56%
CA	35%	45%	45%	42%	34%	23%
BPER	80%	99%	127%	85%	70%	37%
Carige	153%	168%	132%	223%	139%	182%
MPS	444%	411%	241%	143%	128%	82%

At the end we consider the Texas ratio, MPS in 2018 goes under the 100% while Carige for all the period maintains a high value. BPER sees a decrement for all the last four years as ISP and CA but with lower rate. UBI is the only who sees an increment in 2017 even if it recovers in 2018 but the value is the highest of the period considered.

Chapter 5: Comment and conclusions

It is time now to comment the results reported in the previous chapter to understand what the effects of these bailout interventions on the institutions object of rescue were. As declared before in this thesis the main object is to analyze the causes which led some Italian banks to financial troubles requiring the intervention of the State and try to individuate if these causes were solved. Moreover, by analyzing the financial statements of the banks we observe if there were any change inside them after the bailout to understand the impact of the rescue methods. We remember that the year that we take as threshold is the 2017 because all the acquisitions were made in that period and we consider this year even for MPS because the intervention happened just few days before the yearend (see chapter 3). Firstly, we start giving a summary of the results obtained to have a clear picture of what happened on the banks after the intervention of the state. About MPS we register in 2018 an increase in net income that it is close to zero after many years of losses and for ISP an increase in importance of due to customers in relation to other liabilities always in 2018. As ISP, UBI was seriously impacted by a high increase in due to customers but from the 2017 the net income turns to be positive after two years of losses. To what concern the other banks, CA, BPER and Carige, there are not significant changes on liabilities. MPS decreases the leverage but this can be not led by the state intervention because there is a high decreasing path even before the 2017. What is relevant about the level of debt is the increase in leverage of UBI since the 2017. If we look at the assets there are not significant changes except UBI which presents a different composition with a high level of due from customer in respect to previous years. CA presents higher level of due from customer thanks to an increase of this account but also from a decrease of financial assets and due from banks. About the bad loans we can say that we observe a declining path even before the intervention of the state except for UBI which is the only one who increases the ratio in the last periods. The net results of financial operations give us information about the operations other than the lending to customers and the main evidences are a decrease of Carige in 2017 and 2018 leading to negative results and the same we can say about MPS even if the results are not negative. Even UBI in 2018 suffers a decrease in this component after many years of positive results. For the income statement, we see that MPS has a decrease in the interest expenses for all the period but especially in the 2017 and 2018, the same happened to ISP which registers a decrease of importance of interest expenses and an increase of operating costs. This effect is driven either for a reduction in interest expense and for an increase of operating costs. UBI in 2016 sees an increase of negative fee and commission and this enforced in 2017. For the other banks we can observe a general trend of

increase in importance of operating costs and decrease of interest expenses as well as an increase of positive fee and commission and a decrease of interest income. About the interest rate and spreads, we can observe how BPER is the only institution that has a decreasing path of spread while the other banks maintain their spreads even if both the interest income rate and the interest expense rate have a decreasing path. Looking at the ROE we can observe that in 2017 ISP increases its ratio and UBI also after many years of negative or low ROE. Even MPS gets better in 2018 while Carige is not able to recover alone. The buyer banks, as it is possible to expect, increase the number of employees in 2017 2018 except for BPER, moreover we have reduction of cost per employee for UBI. Finally, about the Texas ratio we can see an improvement of MPS in 2018 while a decrement of performance for UBI.

After the indication of the most relevant findings we can now understand if the financial trouble of the bailout banks were solved or if were transmitted to buyer banks. The main problem for the rescued banks were to be focused too much on a traditional business model and so high reliance on loan interests of customers. Looking at the customer asset and liabilities we can confirm a trend of due to customer increasing for all the period considered and so not specifically in 2017. The exception is UBI which increases in this year a lot the dependence from due to customer. For the assets part we highlight a high increase for UBI in 2017 while a smaller one for CA in 2018, the other banks instead are having for all the period a stability of this asset. Then we look at the interest expenses and for all the period there is a drop in the interest expenses, but we signal a substantial decrease for MPS and ISP in 2017 and UBI in 2016. Even for the interest income there is a reduction of importance for these banks but there is not any relevant change after the acquisitions. The decreasing of interest income and expenses is confirmed even by the interest rates. So, we can conclude that in 2017 UBI was the bank who increases more the liabilities and assets from customers while CA sees only a slight increase on due from customer. For the interest expense MPS, UBI and ISP experiment a decrease after the 2017. We can affirm that UBI suffered a change in the composition of asset and liabilities about customers around the 2017 and CA in 2018 for what concern due from customer. About the interest expense MPS, UBI and ISP decrease the relevance of this account. We can say that UBI is going to a composition of asset and liability that put importance on customer typical of a traditional business. We can notice also that we assist to a reduction on interest income but this is followed by a corresponding decrease in interest expenses and so the income from interest is still positive, moreover the banks are changing the composition of their assets with less weight on customers but more on fee and commissions. This strategy seems to be not disturbed by the intervention of the state. Another

relevant point about the bailout banks was the operating costs and more generally the costs due to a high number of employees. ISP is hit by an increasing of operating costs after the 2017 as well as UBI in the same period, CA instead is hit in 2018. However, the general trend of all the period for the banks is an increasing level of operating costs but this is mainly due to a reduction of interest expenses as in the case of MPS. Moreover, even after the acquisition and the increase of number of employees the banks were able to maintain the personnel expenses at the same level of previous years in relation to operating costs. So, we can say that after the 2017 ISP, BPER and CA experimented a high value of operating costs however all the other institutions have a growing path for what concern these costs and so we cannot confirm with certainty that the rescue was the main driver for these costs. The loans difficult to recover were another problem of the bailout banks and so we look at the bad debt in order to understand if this pattern were transferred to the acquiring banks or maintained in MPS. About this fact we can consider that after the 2016, so before the acquisitions, the banks started to decrease the impact of bad loans and it did not increase after the purchase, this is what we expect because the contracts did not contemplate the transfer of the NPL. However, UBI is different from the other because it increases the presence of bad loans until the 2017 with a slight recover in 2018. So, in general it is possible to affirm that the solutions adopted by the authorities were efficient in granting the restraint of the non-performing loans. Another important problem for the banks entered in trouble was the elevated level of debt with a corresponding low level of capitalization. As we reported before all the banks suffered an increase of leverage after the 2015 but the bank which showed a higher increase after the 2017 was UBI. We can conclude that the model focused on a traditional business, typical of the rescued banks, is not transferred to the buyer banks because the path of a business centered on other sources rather than the only intermediation activity is going on even after the bailout. The only bank which shows a changing from this path is UBI. About the operating costs we cannot determine precisely if they increased because even if we find some operating costs which increased in respect of other negative income component, all the banks are undergoing an increase of operating costs. About the low quality of the loans we can say that this is not transferred except for UBI that, as we said before, has different pattern from the other banks about the bad loans. About the level of capitalization, we do not observe any strong change in the level of debt and what reported by UBI in 2017 it is not enough to reach some conclusion about the debt of this institution.

As we saw UBI seems the only institution which suffered more in the period of the acquisitions and it comes naturally to ask why it is the only bank with high changes in respect to the others. To analyze this difference, we can start by understanding the banks which has

acquired. The banks acquired were Carichieti, Banca delle Marche and Banca Etruria, but their resolution was linked with another institution, Carife, then acquired by BPER. These rescued banks are inside the same project of rescue, so another relevant question is to understand why UBI incurred in some changes while BPER was much less touched by the question. Looking at the UBI strategy we notice that this bank at the end of 2016 and at the beginning of 2017 acquired five banks under the project *banca unica*. The banks under consideration are Banca Popolare Commercio, Industria Spa and Banca Regionale Europea Spa in 2016 while the 20th February of 2017 with Banca Popolare di Bergamo Spa, Banco di Brescia Spa, Banca di Valle Camonica Spa, Banca Popolare di Ancona Spa and Carime Spa. Considering this, it is not so easy to conduct the changes suffered by UBI to the intervention of the state which rescued Banca Etruria, Carichieti and Banca delle Marche. To conclude UBI appeared the most affected by the intervention of the state but all the acquisitions other than that of the banks under bailout mined the possible connections between the changes suffered and the state interventions.

In this study we can observe several limitations. The first is the fact that we studied the impacts on these banks only for two years and so we are possibly missing some impacts that can emerge in the next future. Then, if the method chosen has the advantage to be simple to apply and to give evidence of the main changes happened, it has also negative aspects. The major is the difficulty to go deep in the analysis, without giving a precise measure of how much they were affected by government measures. Moreover, it should be relevant to know the impact of the different rescue methods but for the low number of banks involved, for the fact that the rescued banks were dissolved and for the method applied we were not able to observe it. Another critical aspect appeared when we studied the three banks of Romagna, especially for Carim and Carismi, because we were not able to collect more years due to the impossibility for us to recover other financial statements.

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