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RaOPL - Rating Operating Project Loan: research of a model to evaluate an NPL risk indicator

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List of Abbreviations

NPL – nonperforming loan
RaOPL – Rating Operating Project Loans
P1 – Process P1: Auction Announcements and Technical Office Report
P2 – Process P2: Preparation to the Auction Sale
EAV – Market Asset Value
PA – Project Analysis
ECB – European Central Banks
SPV – Special Purpose vehicules

1. Abstract

The NPL – nonperforming loan – issue in Italy is a direct effect of the prolonged recession that the country is undergoing. The Italian bank system reacted relatively well to the US collapse in 2008, but it was a significant circumstance to start the increase on NPLs flow due customer's financial deterioration. Beside political and structural issues that disable the NPL market flow, the banks management doesn't have a proper definition on how to deal with their NPL portfolio. The model described in this document, the RaOPL (Rating Operating Project Loans), is created with the goal to develop an experimental model for the generation of Rating related to the NPL that has been put on auctions in this scenario. The participation in the development and analysis of the model was achieved as a support of the work assignment in the Fabrizio Massey SpA.

Therefore, this thesis aims on presenting and put into evaluation a model, developed to rate real estate assets related to non-performing loans (NPLs), denominated RaOPL (Rating Operating Project Loans). This model is defined as a synthetic indicator resulting from a procedural and documental model, which measures the risks related to NPLs. Established that goal, this thesis is divided in six main parts. Initially, a better understanding on the NPL market and of the rating system is the appropriate way of to tackle suck analysis. After that theoretical introduction, it is possible to present the model with a better overview of its intention and properly evaluate its performance.

Key words: NPL; Rating; Risk list; Area of expertise; Market Value; Project Analysis.

2. Introduction

This thesis aims on presenting and put into evaluation a model, developed to rate real estate assets related to non-performing loans (NPLs), denominated **RaOPL** (Rating Operating Project Loans). RaOPL is a synthetic indicator resulting from a procedural and documental model, which measures the risks related to NPLs. Based on the Rating Value, the goal is to determine a simple score able to evaluate the NPL that could be acquired in the sale auction. The rating aims on defining the "risk" of valorization of the asset regarding the Market Value and the relation between the economic and project evaluation.

Different benefits emerge from the model application on handling NPL portfolios. First of all, it provides a data collection methodology in a **Single Database**, in order to deal with the high level of information concerning NPLs. The evaluation of such assets based on the data related to it is performed in two different types of analysis – a quantitative analysis and a qualitative analysis. Those analysis are undertaken by a risk list examination in order to verify how internal and external factor affect the evaluation of such assets. Overall, the single score aimed as the final result of the model makes possible to understand the critical issues around a specific asset. This characteristic sets the Rating from the credit one since the second one doesn't evaluate each project in detail in order to classify it.

Established that goal, this thesis is divided in six main parts. The first part is used as a base to explain the situation around the analysis object of the model – the NPL market. The second part has a similar purpose but aims on explaining the tool used to deal with such issue – the rating system. After that theoretical introduction, it is possible to present the model with a better overview of its intention. Following the explanation of the model and its procedures few cases of study, with different scenarios, will be applied to evaluate and clarify the model performance. An analysis on the advantages of the model in the evaluation of the NPL portfolio of a bank is performed in order to compare it against with the current evaluation of such portfolio. In the end, a general conclusion is presented to put under assessment all the points discussed about the model until this point.

The model is studied in order to help the current situation on banks dealing with high level markets of NPL. A nonperforming loans (NPL) is a loan on which the debtor is going through

a worsening of their financial situation and isn't able to fulfill his contractual obligations. For that reason, the banks characterized with high level of NPL are encouraged to perform a better management of such portfolio aimed to its slow reduction. Such process is made difficult by factors external and internal to the bank management. The economic situation that circulated the world since the 2008 crisis had an impact on the NPL market growth in Europe, especially in some countries, like Italy.

Aware of this problem, the aim was to find a tool able to manage and evaluate such a large number of NPL in more depth, that is why it has been decided to use the business rating model as a starting point for the RaOPL. This instrument can help the bank have a better understanding about the risks related to a nonperforming loan and ease the purchase process of those assets. The rating system – usually related to credit – express an opinion of a specialized agency about its subject, the capacity of a firm to fulfill its financial obligation for example. In the Credit rating market, different players have different interests in such evaluation – the issuer, the intermediaries and the investor. In a similar scenario between the stakeholders of the Credit Rating market, the intent with the use of a rating scale for NPL is to provide a benchmark for evaluating the relative risk concerning to each NPL present in a bank portfolio. Usually, this evaluation is performed in the NPL portfolio after the securitization, not taking into account the analysis in details of the underlying value of the NPL project. Another main difference between those two markets is that, in a model developed for the NPL analysis, every evaluation process and criteria is up to the bank management on how to deal with those assets.

Therefore, in the direction of dealing with the NPL purchase process, the model focuses on the phases before the auction. This approach happens accordingly two main process: ***P1_Auction Announcements and Technical Office Report*** and ***P2_Preparation to the Auction Sale***. Each one of the process has its own final result in which the goal differs. The process P1 is responsible for delivering a risk opinion in order to support the decision of the type of Due Diligence the respective asset must go through. In the other hand, the P2 process generates an NPL evaluation based on the Due Diligence, this is aimed in reporting the risks related to a specific asset in order to be aware of the critical issues that may occur after the

auction award, beyond that to verify that the problem identified during P1 Process has been mitigated.
Thus, the evaluation resulted in the process P2 is a sort of evolution of the one resulted in the process P1.

For each one of the process going under evaluation, it is established a WBS. The WBS (Work Breakdown Structure) is a diagram representing the analytic structure of the processes. Through a Flow Chart diagram, they report the specific documents to be evaluated for the Rating score calculation (D'Anca, Rating operating financial project: a project quality indicator, 2017). Those documents are responsible for describing the various ramification of the WBS in order to define and analyze the NPL according to well-defined thematic areas. They are specific to each process. The Process P1_Auction Notices and Technical Office Consultant Report is composed by 7 documents. The Process P2_Preparation to Auction Sale is composed by 11 documents.

Those documents are evaluated regarding a quantitative analysis and a qualitative analysis. The quantitative analysis aims in evaluating the WBS documents regarding the presence or absence of information provided by the project files (Auction Notices and Technical Office Consultant Report in P1 and DD in P2) in a range of judgment . The qualitative Analysis has the goal of evaluating the reliability and completeness of the information provided based in three judgment parameters – the detail level, the critical issues level and the reliability level.

Each one of the processes has its own outcome and consequent impact on the asset evaluation as already mentioned. This evaluation process is subordinated to the relation between two different Areas of Expertise, the **Market Asset Value (EAV)** of the building and the **Project Analysis (PA)**. This approach aims on report the expectation of the property within a competitive context, verifying the actual probability of the asset be resold.

In the end, after the proper definition of the model itself, a sample of case studies will be put under evaluation the model developed. The intention at this point is to clarify the procedure during the application focusing on assets with different characteristics and level of information. Those case studies are real documentations of assets under evaluation

provided by a database of the bank Intesa San Paolo. The purpose is to apply the model in different real estate assets in order the verify the implication of such changes in the procedures and the documents compilations.

Following that, it is discussed about the scenario in which the model developed would be applied. The model aims on analyzing the bank's NPL portfolio in detail by each project. The securitization of its portfolio and evaluation as a package doesn't allow a proper evaluation of the project, more specific, about the underlying value of each NPL project and that's the object of the RaOPL evaluation.

The result attended from this studied mainly is to evaluate if the model can be used as a well-defined and reliable rate able to measure the risk between those NPL in the auction process. These validation regards firstly with the rate generated in process P1in order to support the due diligence decision-making process and, subsequently, in P2 to achieve a final evaluation of the property. During this procedure, the tools used to define the relation between the two Areas of Expertise and the rate score are put in evaluation as well.

3. NPL

The first part of this document is concerned about describing the environment in which the model studied is going to be applied. For that, a clarification about NPL (nonperforming loans) is the best start as it is the study object of the analysis.

The end of 2016, the European Banking Authorities (EBA) and the European Central Bank (ECB) turned their attention to the levels of NPL un the Euro area when it reached 1 trillion of euros. This legacy of the 2008 crisis generates an effect of financial issues that difficult its management. This section aims on defining NPL as much as give a superficial overview in the Italian issues concerning such asset portfolio (Disarò, 2017).

3.1 Definition

A nonperforming loan (NPL) is a loan on which the debtor is not making his scheduled payment – interested payment or repaying any principal. In practice, these are receivables for which collection is uncertain both in terms of compliance with the deadline and the amount of the exposure. At some point, such loan is classified as bad loan for the bank (a nonperforming one), it depends on the local regulation but normally happens around 90 days after the mismatch with the scheduled payment. Once a loan is considerate as nonperforming, the chances of that it will be repaid in full are considered very low. Therefore, a non performing loan is any loan that can be expected to enter default. If it starts to be paid again (even if it's not covering any of the missed payments), it's identified as a reperforming loan.

The *Banca d'Italia* defines nonperforming loan as:

"(…) exposures to subjects that, due to a worsening of their economic and financial situation, are not able to fulfill all or part of their contractual obligations."

The definition adopted by Bank of Italy reflects a harmonization with the criteria published by European Bank Authority (EBA) in 2013. The general concept was aligned with the one used in Italy in its "*Rapporto sulla stabilità finanziaria"*, even though a more detailed definition in the Italian statistics concerning the subcategories of NPL previous used was needed (Banca d'Italia , 2016).

After application of the EBA rules concerning supervisory reports on NPE (2015), the *Banca d'Italia* has modified its traditional NPE classification into a new one that comprehends macro clusters. The three underclass of NPL current defined by the Italian Bank are: bad loans (*sofferenze*) - subjects in a state of insolvency or in similar situation; unlikely-to-pay exposures (*inadipienze probabili*) - the bank considers it unlikely, without recourse to actions such as the enforcement of guarantees, that the debtor fully complies with its contractual obligations; and overdrawn and/or past-due exposures (*esposizione scadute e/o sconfinanti*) - exposures that have expired or exceeded credit limits for more than 90 days and beyond a pre-set materiality threshold.

Table 1 - Comparison on NPL definitions

<table>
<tr><th>OLD Italian definitions</th><th>EBA definitions</th><th>NEW Italian definitions</th></tr>
<tr><td>Past due or in arrears
("Esposizioni scadute > 90 giorni")</td><td rowspan="3"></td><td>Past due ("esposizioni scadute e/o sconfinanti deteriorate") including FNPE</td></tr>
<tr><td>Restructured loans
("Crediti ristrutturati")</td><td rowspan="2">NPE
(as by the past due and/or the unlikely to pay criterion)
including FNPE</td><td>Unlikely to pay ("inadempienze probabili") including FNPE</td></tr>
<tr><td>Substandard loans/Watch list
("Incagli")</td><td></td></tr>
<tr><td></td><td></td><td>Bad loans ("Sofferenze") including FNPE</td></tr>
<tr><td>Bad loans
("Sofferenze")</td><td></td><td></td></tr>
</table>

When we consider especially loans that are backed up by an asset, such as home loan, the lenders – usually represented by banks – search feasible opportunities to attempt to recover the principal. When housing prices fall, consumers are more likely to default on their home loans, causing banks to lose money. Also, home equity dries up, meaning that consumers have fewer funds available. Such scenario clarifies the intrinsic relationship between the real estate market situation and the banks financial health situation. Thus institutions in which portfolios are characterized by the presence of nonperforming loan, such as those described

above, may choose to sell it to get rid of the risk and the financial implications of holding such asset.

A relevant topic regarding the definition of NPLs is that there isn't a internationally accepted standard definition to it. National supervisor often tend to follow different definitions for loan classification (Moody's, 2003).

3.2 Banks: NPL management

As pointed out on the previous topic, lenders may choose to sell the NPL and clean up their balance sheet in order to get rid of the risks related to it. But its sale has financial implication that cannot be neglected, including influence on the company's profit and tax definitions. Regulation institutions tends to support a sustainable reduction of the NPL volume in bank's balance sheets. That happens because such reduction is beneficial to the economy in the same way that an economic recovery is enabler to the NPL resolution. This dynamics on the capacity of the banks on dealing with this issue generates a relation based on an vicious cycle concerning the credit demand and supply. The Figure 1 graphically represents this dynamic (Disarò, 2017).

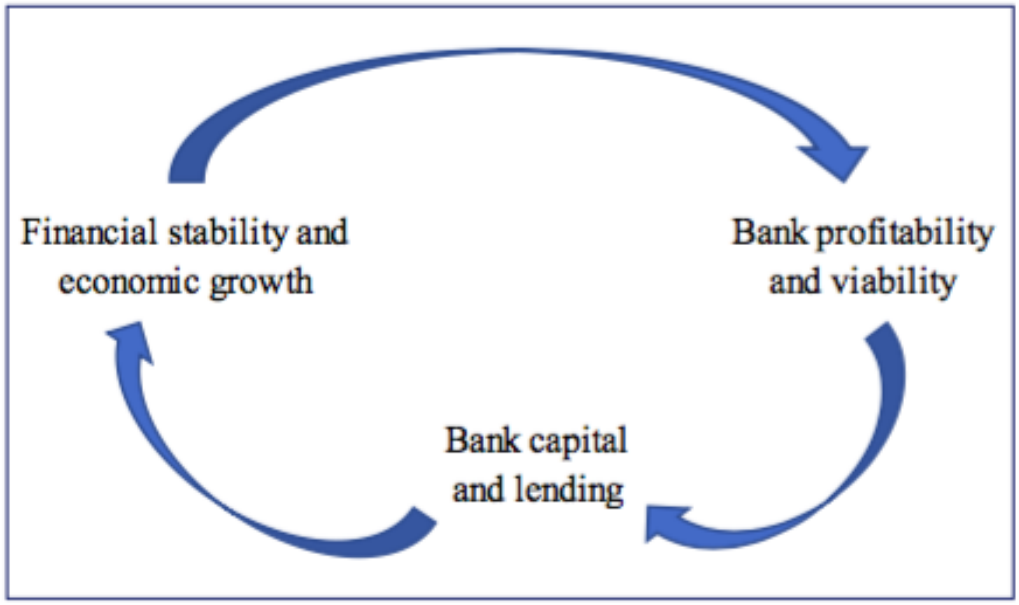


Figure 1 - NPLs vicious liquidity cycle

In view of this, The European Central Bank (ECB) provides a guidance to NPL management to those banks in order to help them in such concern. The ECB does not intend to stipulate quantitative targets to reduce NPLs with that guidance. Instead, it asks banks to devise a strategy that could include a range of policy options such as NPL work-out, servicing, and portfolio sales (Linee guida per le banche sui crediti deteriorati (NPL), 2017).
From the bank's sight, the NPL has a concerning impact in their profitability in two direct ways: the first and most obvious one is the net loss on loans not recovered; the second one is an increase in costs for the NPL management – process characterized for being extremely time consuming and with an intensive workflow of documentation and manual tasks.

In this guidance, the European Central Bank describes a NPL strategy in which the aim is to provide to the high NPL banks – banks with high levels of NPLs – a way to target a NPL reduction in a realistic but sufficiently ambitious schedule. The bank is lead to develop and implement an effective management of the reduction of NPL stock for each relevant portfolio based in some core activities. Those core activities are: assessing the operational environment including internal and external conditions impaction on it; include targets qualitative and quantitative in the development in the NPL strategy; implement the operational plan considering any organizational structure change inside the bank; and last, provide a total integration of the NPL strategy with the management process of the organization.

The global service company Accenture highlights that the banks pursue the opportunity to extract more value of the NPL trying to improve the management activities focusing in seven initiatives (Mazzotti, 2015):

- Client profiling;
- Define a retail strategy library;
- Redesign the operating model;
- Optimize legal services;
- Launch a collateral recovery data quality program;
- Collateral management;
- Early warning and forward-looking models.

Those key initiatives are adequate to the market need, to the ECB guidance, but not to the preparedness of the banks to deal with such issue.

The European Central Bank highlights that, even with a well-structured strategy plan, without an appropriate governance structure and operational setup, the banks won't be able to deal with their NPL issues in a sustainable direction. Therefore, the management body should dedicate capacity in NPL matter and monitor the institution's strategy concerning to it. In high NPL banks, the guidance indicates to deal with the NPL issues with working units (WU). Separate and dedicates working units enable an encompass with the client relationship activities (e.g. negotiations) and with the decision-making process. Therefore, the NPL WUs should be set-up taking in account it aligned to the NPL life cycle and the portfolio specificities and segmentation. For the success of this operational plan in achieving the NPL strategy, such banks have to effectively implement a control framework for the bank's business strategy related to the NPL.

The banks also have the forbearance as a tool of management of NPL portfolio. It allows the borrower to exit their non-performing situation. The European Central Bank guidance is based on the definition of the Commission Implementing Regulation (EU) No 680/2014, in particular paragraphs 163-183 of Annex V, is used.

"Forbearance measures consist of "concessions" extended to any exposure – in the form of a loan, a debt security as well as a (revocable or irrevocable) loan commitment – towards a debtor facing or about to face difficulties in meeting its financial commitments ("financial difficulties"). It means that an exposure can only be forborne if the debtor is facing financial difficulties which have led the bank to make some concessions."

But the banks tend to not use it as a way to return the exposure to a sustainable repayment condition to borrowers in financial difficulties, such action delay action to tackle the asset quality issues. For that reason, ECB reinforces the viable forbearance solution to the European banks.

According to *Banca d'Italia,* with the conversion into law of the decree-law n. 50/2017, the Parliament introduced important changes in law no. 130/1999 on the securitization of credits (Albamonte, 2017). The methods aimed at facilitating the securitization of impaired loans (Non-Performing Loans - NPL) originated by banks and by financial intermediaries referred to in Article 106 of the *Testo unico bancario* (TUB). This law applies to securitization

transactions carried out through the sale for consideration of financial credits, both existing and future. They removed or mitigated some restrictions on the granting of new finance to distressed debtors and make the process of recovery of NPLs more efficient. In particular, SPVs (Special Purpose Vehicles) that purchase and securitize NPLs may deal with it in two ways.

The first one is contributing to the financial restructure position of the debtors and, therefore, improving the recovery chance. They may perform that in two different ways. The SPV may grant new finance to certain categories of debtor, in that case, it has to be validated by a financial intermediary - with adequate professionalism and interests aligned with those of the investors on the basis of the specific rule of risk sharing. The second one is performed by subscribing capital or other participative instruments deriving from the conversion of loans, as agreed with the creditors in a plan for economic and financial rebalancing. The regulatory framework in force (law 130/1999) allowed an easy securitization of unsecured loans, but made it difficult for vehicle companies to carry out these two types of activities. The management of new payments must be made to a professional subject with the necessary qualifications (a bank, an intermediary pursuant to Article 106 of the TUB, a SIM, an SGR), which must act in the interest of investors and verify the compliance of the operations of the vehicle company to the law and to the prospectus of the operation. The law was inserted to avoid that the financing activity is carried out entirely by non-authorized subjects (therefore not subject to supervision) and to ensure the correct performance of the new activities allowed to the vehicle companies. As this one, at the same time, some features were introduced in that law to avoid an uncontrolled expansion of *shadow banking* – non-bank financial intermediaries that provide services similar to traditional commercial banks.

The second method used to facilitate the securitization of impaired loans is the directly acquisition and management of the buildings or other assets used as collateral for the securitized exposures. They may also take part in auctions, improving purchase prices or acquiring properties before they lose value. If the SPV acquires the lease properties and the related contract, the new rule provides the creation of a special vehicle for each individual securitization transaction, which is consolidated in the balance sheet of a bank (even if not

it is part of the banking group) and that it is liquidated once the operations associated with the securitization have been completed.

Securitization is the financial practice of pooling various types of contractual debt such as NPLs and selling their related cash flows to third party investors as securities. The problem concerning to it is that off-balance sheet treatment for securitizations coupled with guarantees from the issuer can hide the extent of leverage of the securitizing firm, thereby facilitating risky capital structures and leading to an under-pricing of credit risk.

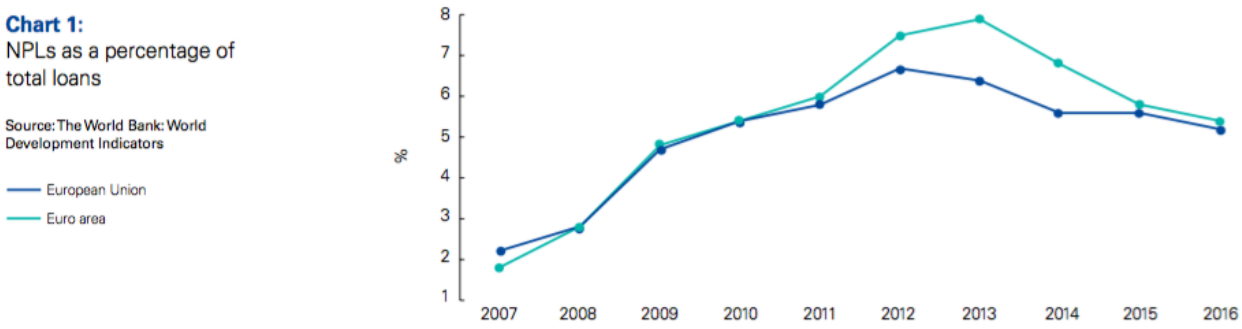
There are others ECB guidance's element that should be highlighted. The NPL recognition process in which it gives a base on definition of non-performing exposure to banks develop their NPL policies. The NPE definition is currently only biding for supervisory reporting purpose. The ECB outlines some issues regarding to the NPE definition. The ECB with that section is to five a definition of a non-performing exposure which the banks should use as base to develop its NPL policies and procedures.

The following guideline is concerning to the impairment measurement that banks need to be able to assess a required level of provision and write offs based in proper policies is another guidance element. To achieve that goal, it suggested that the banks perform an individual and a collective estimation of provision and the related issues. At last, the bank has to show it valuation of real state collateral. It has to be based on independent assessment and be updated and well founded. For that, the guidelines indicate focus on governance – monitoring od procedures, valuation approach and foreclosed assets – plan to sell within a short timeframe.

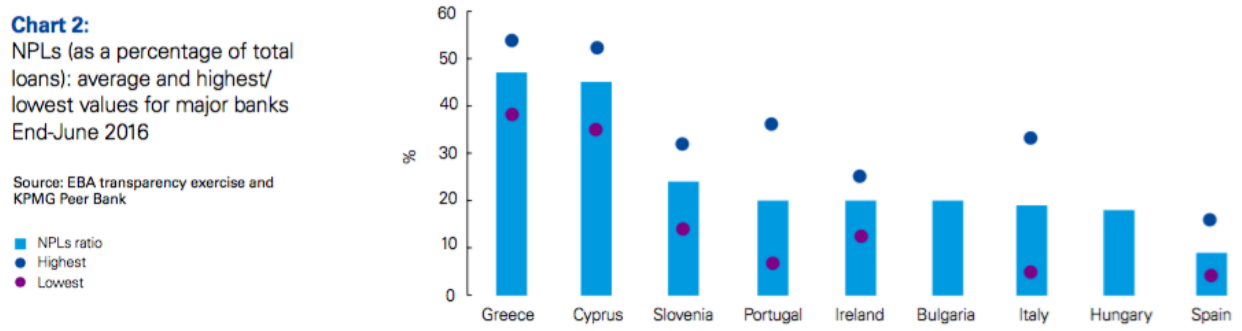
In the end, it clarifies that the banks failed with frequency on obtaining periodic financial information from the borrowers as much as from updated real estate valuations in order to assess the quality of loan on their balance sheets and the adequacy of the collateral. This issue related to the collateral valuation for the immovable property has as consequence failure in recognize early warnings that asset quality was declining which resulted in an questionable balance sheet loan loss provision. This topic is highly pertinent to the model discussion.

3.3 NPL market in Europe

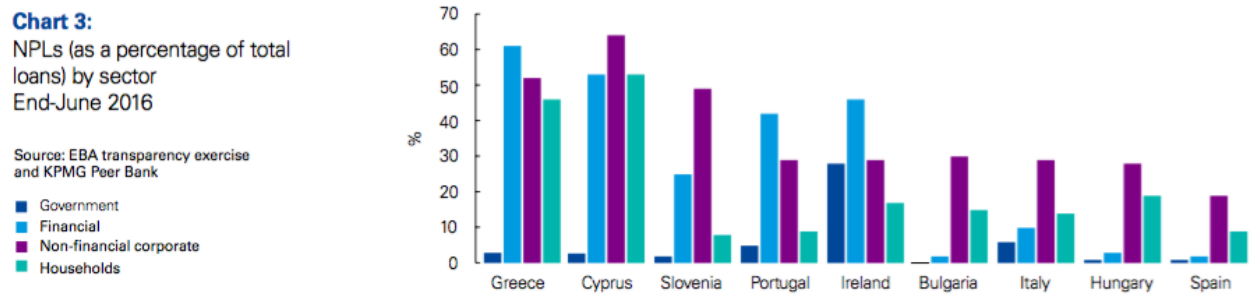
Countries as Greece, Portugal and Italy are some examples of places in which banks are characterized by the high volume level of NPLs. Such phenomenon is spread across the Europe with highs peak in 2013. Since that some countries were able to deal with this situation in a sustainable way reducing the criticality of this scenario. The disadvantage from the point of view of banks has already been discussed, their loss in profits lead them to a position where is difficult to support economic growth. The following graphs – 1 to 5 – report the evolution of this market in the Europe and in the main countries affected until 2016 (KPMG, 2017).



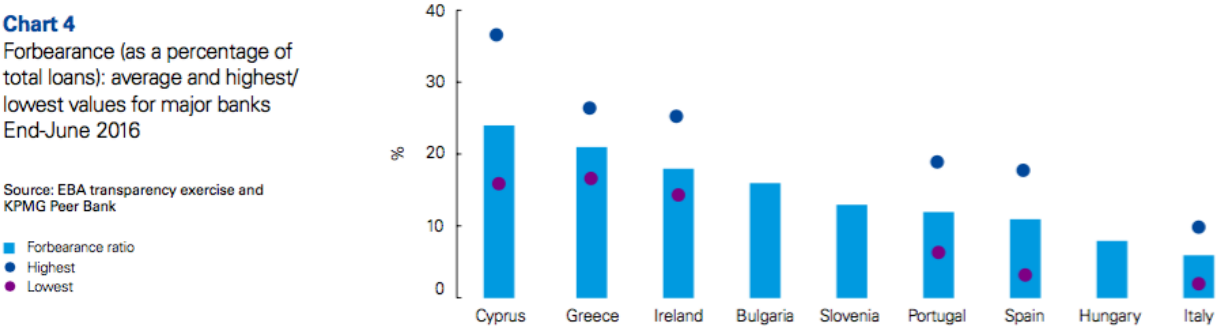
Graph 1 - NPLs as a percentage of the total loans in Europe (Source: KPM Non-performing loans in Europe May/2017)



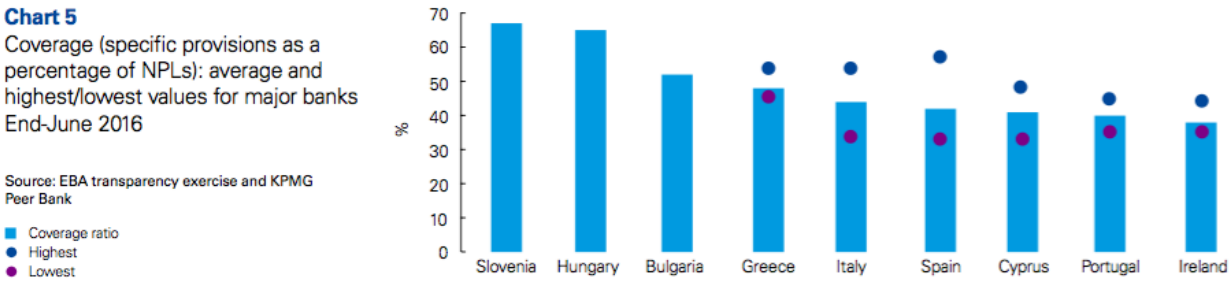
Graph 2 - NPL (as percentage of total loan) by Country (Source: KPM Non-performing loans in Europe May/2017)



Graph 3 - NPL (as a percentage of the total loan) by sector for each Country (Source: KPM Non-performing loans in Europe May/2017)



Graph 4 - Forbearance (as a percentage of total loans) by Country (Source: KPM Non-performing loans in Europe May/2017)



Graph 5 - Coverage (as a percentage of total loans) by Country (Source: KPM Non-performing loans in Europe May/2017)

In the global association KPMG analysis of this scenario shown above, its highlighted four main reason for the sustainability of the situation that need to go through some changes in order to provide a solution to it.

The first one and most relevant is the bank's lack of preparedness to deal with the NPL management - such topic was introduced in the discussion about how banks deal with NPL management. The main issues are occurred due the lack of a well structure data on NPL and an optimized NPL strategy to handle properly with those portfolios. In some cases, the losses on sale and due operational costs may lead to a recapitalization of the bank – that situation may difficult the decision on the right action to be taken.

The second is that some countries have a structural impediment that turns more difficult the effective management of NPL. This impediment is outside the bank control and can vary from unbalanced national solvency regime to political pressure to avoid foreclosures.

The discrepancy between the value of the NPLs on the bank's book and the market price for these NPLs may make the banks be more reluctant in selling those assets. This difference into the investor pricing may be due discount concerning inadequate data/information, the potential tome to recover the NPL value and different sight about the macroeconomic outlook.

The last factor is a consequence of the government assistance limitation. The EU State Aid rules and the BRRD resolution are examples of legal constraints that limit the assistance the government may provide through guarantees or directly recapitalization or even other ways.

Such factors have different intensity of impact in the NPL issue itself. At the same, they are responsible for different consequences that vary in the degree of bank control in dealing with it. The Figure 2 describes the relation between the Bank control and some viable solutions to those structural problems related to this four main reason described above.

Figure 2 - Bank Control on solutions to NPL issue (Source: KPMG Non-performing loans in Europe may/2017)

Therefore, is evident that the solution for the NPL issue is not entirely in the control of the banks. The *figure 1* highlights some key areas requiring national or European action to address structure impediments – insolvency regime and changes on the securitization market, for example. There are some extreme cases in some countries where the banks are not able to demonstrate a viable and sustainable future even without the high level of NPL. That happens due the difficult they encounter into replacing NPL for high quality lends. In response to national level actions, the banks should rely on the ECB's guidance to develop an efficient NPL management over the entire "life cycle" of NPLs.

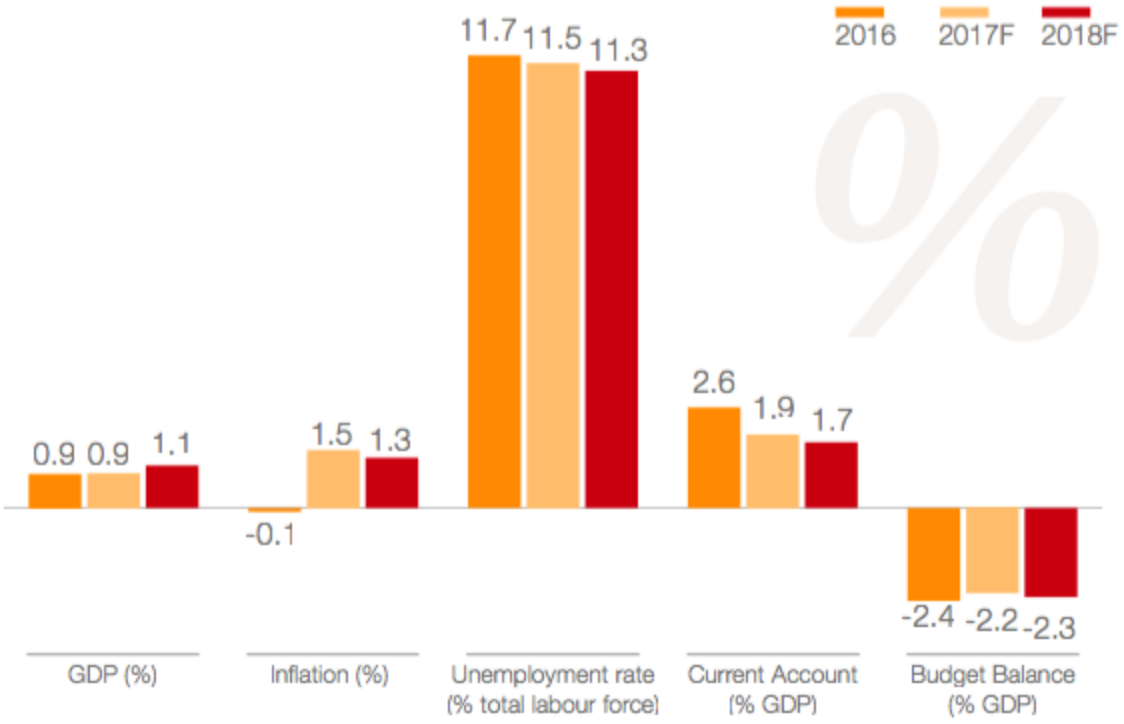
The European Commission identified three groups of Member States, in 2016, by the analysis of the current NPL stocks and the impact of the financial crisis on the NPLs trends.

- Group 1: nine Member States with low levels of NPLs, and with no relevant growth in NPL during the crisis (Belgium, Germany, Denmark, Finland, France, Luxembourg, Netherlands, Sweden, United Kingdom);

- Group 2: nine Member States with a low level of NPLs but with a high growth during the crisis (Austria, Czech Republic, Estonia, Spain, Hungary, Latvia , Poland, Slovakia);
- Group 3: ten Member States with currently high levels (Bulgaria, Cyprus, Greece, Croatia, Italy, Malta, Portugal, Romania, Slovenia).

3.4 NPL market in Italy

The Italian market will be analyzed in more depth than the European scenario because the former will be where the case study of this thesis is located. Therefore, before entering in the NPL market analysis, a quick view about the Italian economy will help to understand easily the situation (PWC, 2017).



Source: PwC analysis on European Economic Forecast Spring 2017. Unemployment rate as a % of total labour force, current account balance and budget balance as a % of GDP

Graph 6 - Italian main economic drivers

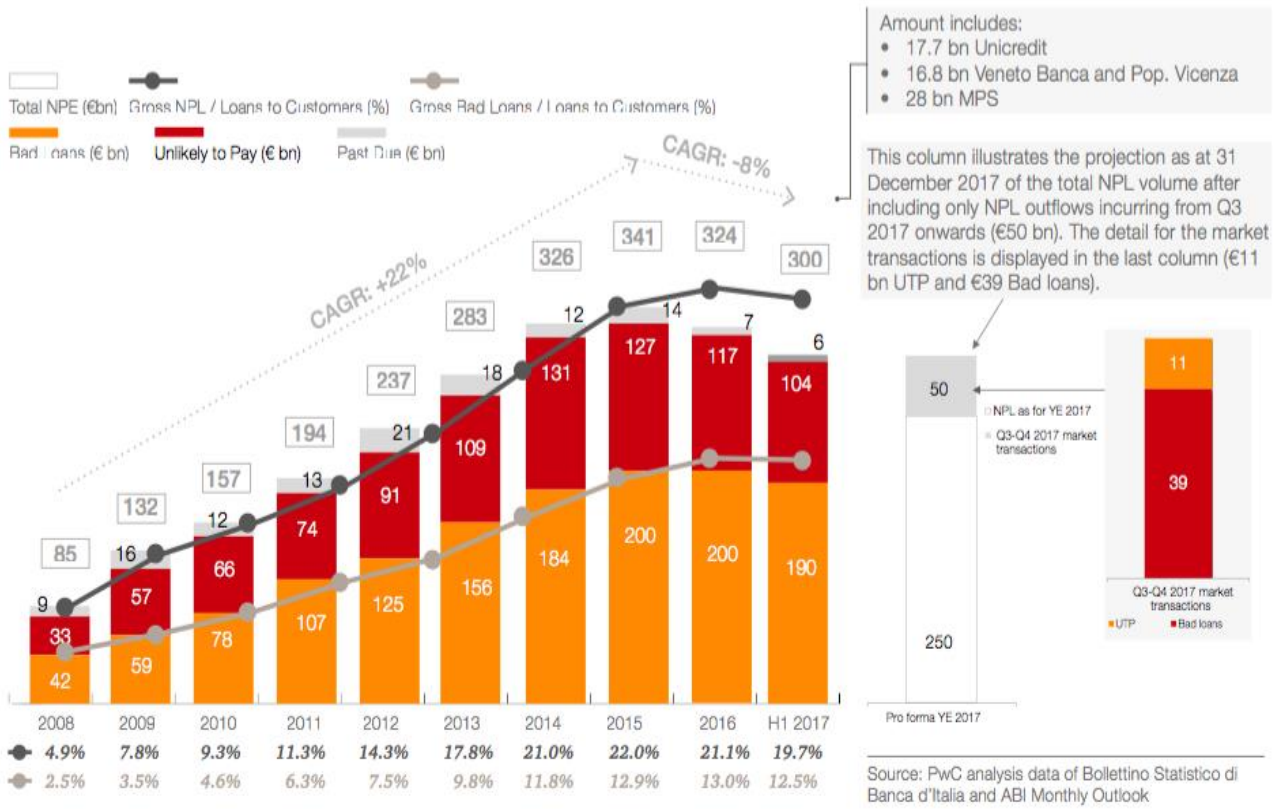
The Italian GDP in the last years had an increase from his stability in 0,9%, that occurred mainly due external demand, private consumption and higher level of investment

beneficiated from the low real interest rates of 2017. The projection shows that the unemployment rate is expected to reduce thanks to higher labor force participation reaching 11,3% in 2018, well above the expected to the European level for the same year (7,7%) from the same source. The EU GDP is expected to remain stable around 19% at the same period and it remains limited by constraint in the high level of public and private debt (PwC, 2017).

The Italian real estate market, in the other hand, continued in the beginning of 2017 its positive trend manly due sales of residential and office properties – the most significant percentage annual growth in 2017. In the same year, the residential sale has an increase throughout all Italy, being the North the region with the greatest positive results. The investment in the Italian commercial real estate recorded in 2017 a transaction volume of € 5.7 bn, from which 80% is foreign investors.

The NPL issue in Italy is a direct effect of the prolonged recession that the country is undergoing. The Italian bank system reacted relatively well to the US collapse in 2008, but it was a significant circumstance to start the increase on NPLs flow due customer's financial deterioration.

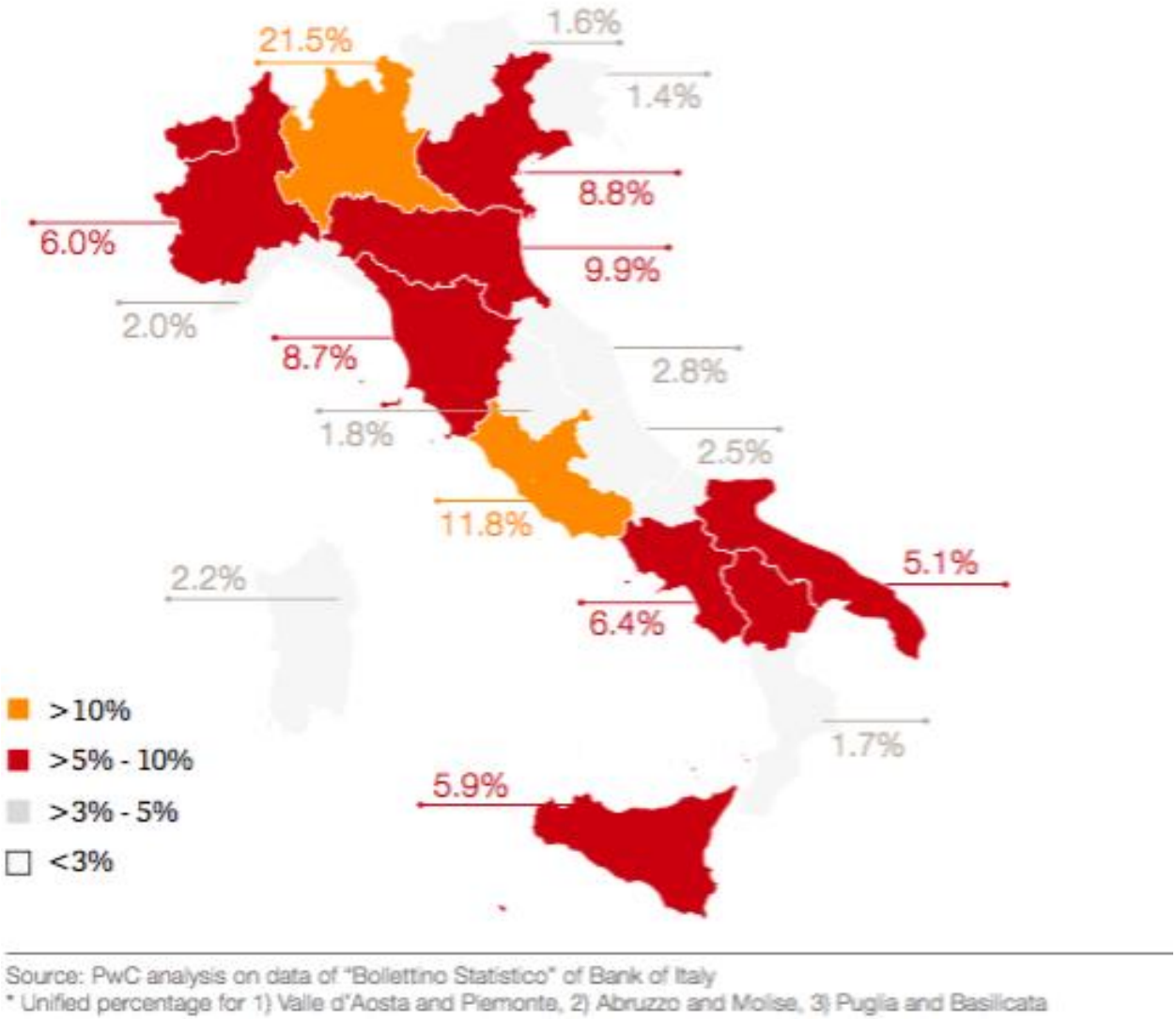
These scenarios described above helps us understand at least some factors on why the NPL market is at a breakthrough point even if the volumes still huge. The following graphic show the NPL market evolution in Italy. The total NPL registered a reduction in the last year and a half. After reaching its maximum at YE 2015 (€341 bn), the stock reduced to €300 bn in H1 2017 (PwC analysis on European Economic Forecast Spring, 2017).



Graph 7 - Gross NPE and Bad Loans trend

The NPE measures the percentage of non-performing exposures over the total loans. It is normally used as the main indicator when talking about NPLs. The ECB, as mentioned before, is putting pressure on monitoring the Italian banks' NPE ratios with frequency (Davi, February 2017).

Besides the reduction, the Italian NPL market still viewed as "The Place To Be", due to the volumes of NPL and remain one of the highest in Europe. Banks are going through a restructuring process, significant banks are engaged in massive NPL deleverage plans, overall the NPL management is passing through a prominent overhaul under the ECB guidelines. However, many Italian banks still addressing those guidelines.



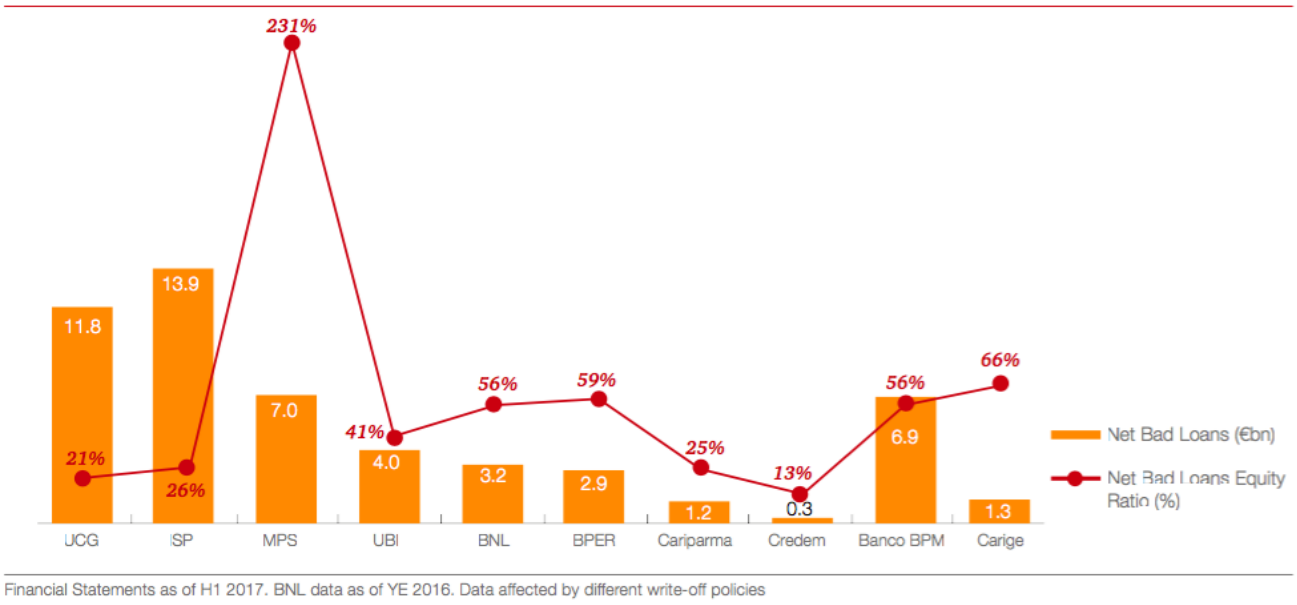
Source: PwC analysis on data of "Bollettino Statistico" of Bank of Italy
* Unified percentage for 1) Valle d'Aosta and Piemonte, 2) Abruzzo and Molise, 3) Puglia and Basilicata

Figure 3 - Breakdown of Gross Bad Loans by region

The Figure 3 above show the breakdown of Bad Loans by region. Lombardy (21.5%) and Lazio (11.8%) regions continue to have the highest concentration of stock, while at the same time Lombardy and Lazio has respectively 11.6% and 14.5% of Gross Bad Loans ratio (Chart 8a and 8b). This high concentration is easily explicable by fact that the North regions of Italy are the most industrialized and active in terms of business (Milano and Torino are often considered the main hubs for the Italian industrial economy) since the majority of the companies have their headquarters located in this area, therefore it ends to be the most indebted part too - the physiological need of capital (debt) for industrial growing and development. Despite this evaluation, it relevant to clarify that the Centre and the South of Italy has the highest percentage of Gross Bad Loans ratio – percentage of Bad Loans on total loan.

The same way as the European Market, one of the reasons for the non-development in Italy of a secondary market for non-performing loans (NPLs) is the persistence of a significant difference between the book value of these assets and the prices owed by investors. The first reason for that is due the fact that the rate of return request by the investors in NPLs is very high, also due to the lower financial leverage with which they generally operate with respect to banks. This yield is used to discount the cash flows expected from the NPLs. The banks, as required by the IAS / IFRS accounting standards, use instead the original interest rate on these assets, typically much lower and translate in a reduced price. Another reason for that discrepancy is that the banks, in accordance with international accounting standards, recognize the indirect costs of managing NPLs in the financial statements for the year, while potential buyers immediately deduct them from their net value, thereby reducing the purchase price.

Therefore, the solution concerning the valorization of those assets is totally related to the recovery time of it – for both cases – and to the high stocks NPL level – for the second reason. Furthermore, as pointed out by the ECB and the Bank of Italy, is fundamental the evaluation of each bank status – the effectiveness of the internal procedures for the management and recovery of NPLs, the coverage rates, the impact of NPLs on total loans – in order to identify the most appropriate supervision measures, also taking into account the external context in which the banks operate. They do not indiscriminately push banks to quickly sell those assets on the market. In general, the reduction of the high NPL stock will be gradual. However, there are certain areas of maneuver to speed up the process – the impact of selling those assets had been already discussed in the previous topic. The following graphic show us the situation of the ten main players in the Italian system bank. The total bad loans stock for the top 10 Italian banks is around €165bn that represent around 33% of the total Italian stock of which €35,6bn (around 18% of the whole Italian stock) is in the balance sheets of the two largest bank Unicredit SpA and Intesa San Paolo SpA (PwC analysis on European Economic Forecast Spring, 2017).



Graph 8 -Italian top ten banks' Bad loans

Such scenario requires a development of new solutions, innovative approaches and breakthrough actions that must be identified to the Italian banks may deal properly with this amount of NPLs. Against such issues, this thesis has as goal the evaluation of a model – RaOPL model – which may be a useful tool for the banks and the creditors in the management of the NPL problem. To achieve that goal, the model studied will be applied in different study cases concerning the Italian NPL market. The gain of a rating to evaluate the risk of each study case in that scenario will be verified in order to confirm if it can be a useful tool in the NPL management process.

4. Rating

The second part focuses on defining rating and evaluating how such tool may help to handle with the NPLs portfolio issues. Generically, rating means to classify or put in a rank someone or something based on a comparative assessment of their quality, standard, or performance with a purpose of evaluation in mind.

4.1 Definition

The use of rating is related to a variety of scales from different agencies. For each rating developed, the classification agencies clarify a definition of each individual scale for guidance on the dimensions of risk covered in each assessment. Those relative measures of risks are based on all information known to and considered relevant by the evaluation agency. The most common rating nowadays is the Credit Rating, in evaluation of business and institutions.

The Rating Agency Standard & Poor's define Credit rating as:

"(…) are opinions about credit risk. Our ratings express our opinion about the ability and willingness of an issuer, such as a corporation or state or city government, to meet its financial obligations in full and on time."

Then the credit rating is a formalized opinion about credit risk of an institution concerning to ability of such issuer to fulfil its financial commitments. Therefore, the credit rating is responsible for the measurement of the default probability – not in absolute way since it's about future events dealing with uncertainty. Therefore, the utilization of each individual rating should be taken for the user as a guidance on the risk's dimension since such description it's not an accurate fact. Credit ratings for borrowers may be based on substantial due diligence conducted by the rating agencies. Due diligence consists in an application of an investigation or audit of a subject – a potential investment or product – to confirm its financial records plus any other deemed material (Standard & Poor's Rating Service, 2017).

Credit assessment and evaluation for companies and governments is normally executed by a credit rating agency such as Standard & Poor's (S&P), Moody's, or Fitch. These rating

agencies are paid by the entity that is seeking a credit rating for itself or for one of its debt issues.

The main useful role of the credit rating is its ability in enabling corporations to raise money in the capital market. The reason for that is the credit rating provides a reliable and efficient measurement of the credit risk which allows an easier process of issuing and purchasing bonds and other debts. Other uses of the rating is related to knowledge of access to new markets, best knowledge about the cost of capital, support the investment decision making, benchmark financial status and others. Therefore, the issuer, the institutions intermediaries – normally investment banks, and the investor have different aims to use the credit rating (Standard & Poor's Financial Services, 2017).

Table 2 - credit rating purpose by user

ISSUER	Credit ratings is used as a tool to provide a views of their creditworthiness and the credit quality of their debt issues
INTERMEDIARIES	Credit ratings used to benchmark the relative credit risk of different debt issues and determine the interest rate these issues will pay
INVESTOR	Credit ratings help to assess credit risk and to compare different issuers and debt issues

Therefore, is understandable the impact such ratings have on financial markets. A major and recent example is the market reaction to the grade that Standard & Poor's ranked the federal government of U.S. in 2011. That downgrade was followed for weeks by global markets.

Currently, the credit rating agencies have their own classification of ratings by types. The following types are an example of such classification, similar to the one used by Moody's – this differentiation are similar between the main rating agencies.

- Long-Term Debt rating: opinion on credit risk of fixed income with an maturity bigger than one year. Therefore, reflects the likelihood of default.

- Short-Term Ratings: opinion on the capacity of the issuer in honor its short-term financial obligations – maturity smaller than thirteen months.
- Issuer Ratings: opinion of the ability of entities to honor its senior unsecured financial obligations, debt that takes priority over other unsecured.
- Corporate Family Ratings: is an opinion of a corporate family's ability to fulfil its financial obligation and are generally employed for speculative purpose. It is assigned to a corporate family as if it had a single debt and a single consolidate legal entity structure.
- Bank Rating: ratings assigned to bank typically in two ways: Bank deposit rating and Bank Financial Strength Ratings – for Moody's.
  - Bank Deposit Ratings: evaluate the ability to repay its currency deposit obligations.
  - Bank Financial Strength Ratings: evaluate the intrinsic bank's safety and soundness – excluding external risks and supports.
- Insurance Financial Strength Rating: opinion of the ability of insurance companies to repay senior claims and obligations.
- National Scale Rating: creditworthiness of issuers and issues within a country. It not aim to be a comparison measure between countries.
- Money Market and Bond Fund Ratings: opinion of investment quality of shares in mutual funds or similar investments.

4.2 Evolution of the system

The need of the rating and its purpose was a consequence of the financial market development. During the first half of the XIX century, in order to finance the numerous infrastructure projects, numerous Americans issue sovereign debt obligations and when the issuer default, the bonds were immediately repaid. Parallel to the progressive industrial development, the need to finance the construction of infrastructures was also increasing – fundamental for the development of the industrialization process.

The need for financing is met through the issue of private bonds. The spread of these bonds among savers meets difficulties due to informational imbalances, which make it difficult to the investor confidence on evaluating an investment. The complexity of financial assets and related instruments was intensified by this transaction from a bank-based system to one

based on the financial market. Therefore, the need for information on market participation and transactions was higher at this point.

The first structures that was developed to supply such demand were represented by the credit reporting agencies, born in 1830. They were established with the aim of managing the commercial credit risk. The specialized companies collect and provide commercial information, through the activity of independent professionals, this information is then sold. Following that, in the next years the specialized economic-financial press was originated from the railway sector to provided collect information about the sector - the 1832 “The American Railroad Journal” is an example.

In 1907, the financial markets recorded considerable investment losses, due to the decrease in investor propensity to invest in it. From this situation derives the need to have a mechanism that is able to restore trust in the market, a modality that can occur only through an increase in the dissemination of information that is complete and transparent. From that scenario, the most recent parenting structure to the Rating Agencies was stablished, the investment banks.

Between the three main rating agencies, Moody’s was the first one to publicly issue credit rating for bonds in 1909. Even though in the following year other agencies started doing the same, they didn’t have a profound effect on the market until 1936. That scenario change happened when the banks were prohibited of investing in speculative bonds to avoid risk of default. The others financial institutions implemented the same practice. Therefore, the necessity to rely on credit rating was relevant to those stakeholders.

Those agencies – Moody’s Investor Service, Standard and Poor’s and Fitch’s Ratings – had a similar background scenario. All of them first started as a financial publication dealing with collecting information on stocks and trades concerning certain sector – as already discussed.

John Moody and Company first published ″Moody's Manual" in 1900 – it consists of basic statistics and general information of various industries. From 1903 until the stock market crash of 1907, "Moody's Manual" was a national publication. In 1909 Moody began

publishing "Moody's Analyses of Railroad Investments", mentioned before, which added analytical information about the value of securities. The creation of Moody's Investors Service in 1914 was consequence of the same idea. By the 1970s Moody's began rating commercial paper and bank deposits, achieving the scale it possesses today.

The "History of Railroads and Canals in the United States" was published by Henry Varnum in 1860. Standard Statistics formed in 1906, which published corporate bond, sovereign debt and municipal bond ratings. Standard Statistics merged with Poor's Publishing in 1941 to form Standard and Poor's Corporation. Standard and Poor's has become best known by indexes such as the S&P 500, a stock market index that is both a tool for investor analysis and decision making, and a U.S. economic indicator.

The Fitch Publishing Company founded by John Knowles Fitch in 1913 was responsible for publishing financial statistic target to investment industry. They introduced the AAA to D rating system that has become the basis for ratings in all the industry and will be discussed in the next topic.

The expansion for the global capital market of the rating industry during 1980 and 1990 were:

- the move away from "intermediated" financing (bank loans) toward cheaper and longer-term "disintermediated" financing (tradable bonds and other fixed income securities);
- the global move away from state intervention based on global capital markets and arms-length relations between government and industry.

More debt securities meant more business for these agencies, which many investors and government regulators depended on to judge the securities of the capital market.

In 2012, those three companies concentrate almost 95% of the ratings business – being known as the "Big Three" credit rating. Moody’s Investor Service and Standard & Poor’s (S&P) together control 80% of the global market, the Fitch Ratings controls 15%. ("The Credit Rating Controversy. Campaign 2012" Alessi, Christopher).

4.3 Method

According to the guide Understanding Rating, from S&P, the rating agencies normally use two ways into forming their evaluation (opinion) of credit risks, or even a combination of both: mathematical model driven ratings and analyst driven rating.

The number of agencies that focus almost exclusively on quantitative data based on mathematical model is really small. They evaluate an entity based primarily on data from institution's public financial statement to assess the creditworthiness of a financial institution, for example.

The second driven rating is usually approached by the assignment of an analyst that will take the lead in the evaluation of the entity's creditworthiness. This happens usually with the help of a team of specialists. The information is typically obtained by published reports complemented by interview and discussions with the issuer's management. Such information is the base for the application of their analytical judgment to analyze the entity's financial condition and risk management strategies.

The object of the analysis of the credit rating that will be put under a rating may be a specific debt issue, such as bond, notes, and other debt securities or an issuer, a corporation or a government for example.

In rating an individual debt issue, the rating agencies don't rely only on the information of the issuer. Among other things, they search for other sources to evaluate the credit quality of the issue and the likelihood of default. For Standard &Poor, for example, in the evaluation of a debt issue, their analysts based their analysis process in:

- The terms and conditions of the debt security and, if relevant, its legal structure;
- The relative seniority of the issue with regard to the issuer's other debt issues and priority of repayment in the event of default;
- The existence of external support or credit enhancements, such as letters of credit, guarantees, insurance, and collateral. These protections can provide a cushion that limits the potential credit risks associated with a particular issue;

In the process of rating an issuer, the credit rating agency evaluates the issuer's ability and willingness to pay its obligations and the terms related to it. The formation of such opinion

is based on reviews on a range of financial and business attributes that may influence the issuer's prompt repayment. The specific risk factors that are analyzed depend in part on the type of issuer. In assessing a corporate rating, the agency may consider a range of factors.

The corporate criteria framework that the agency creates concerning the issuer is characterized by two profile: the financial risk profile and the business risk profile. The Table 3 shows a summary description of such profiles (Standard & Poor's, 2017).

Table 3 - corporate criteria framework - risk profiles

BUSINESS RISK PROFILE	Country Risk	- Economic - Institutional and Governance - Legal - Financial System
	Industry Risk	- Industry-specific growth trends - Market structure and competition - Industry cyclicality
	Competitive Position	- Competitive advantages - Scale, scope and diversity - Profitability
FINANCIAL RISK PROFILE	Cash Flow/Leverage	

The evaluation of a company's business risk profiles is usually followed by the financial risk evaluation. Then, the agency uses their assessment to define an anchor for the issuer combining the business and the financial analysis. Several subsequent analytic steps in order to achieve a final rating. Some of the possible modifiers take in account are:

- Diversification /portfolio effect;
- Capital Structure;
- Financial Policy;

- Liquidity;
- Management/governance;
- And comparable rating analysis.

The rating agencies use reference symbols in order to provide a simple, efficient way to communicate creditworthiness and credit quality of their issuers. One of the main consequences of that use is that the rating scale provides a benchmark for evaluating the relative credit risk of issuers and issues worldwide. The Table 4 show how the classification rating is used for each one of the Big Three rating agencies.

Table 4 - Rating Scale S&P's, Moody's and Fitch Rating

Standard & Poor's		Moody's		Fitch Rating	
Long-term	Short-term	Long-term	Short-term	Long-term	Short-term
AAA	A-1+	Aaa	P-1	AAA	F1+
AA+		Aa1		AA+	
AA		Aa2		AA	
AA-		Aa3		AA-	
A+	A-1-	A1		A+	F1
A		A2		A	
A-	A-2	A3	P-2	A-	F2
BBB+		Baa1		BBB+	
BBB	A-3	Baa2	P-3	BBB	F3
BBB-		Baa3		BBB-	
BB+	B	Ba1	Not prime	BB+	B
BB		Ba2		BB	
BB-		Ba3		BB-	

B+		B1		B+	
B		B2		B	
B-		B3		B-	
CCC+		Caa			
CCC	C	Ca		CCC	C
CCC-		C			
				DDD	
D	-	-		DD	C
				D	

The highest rating (AAA in the S&P's scale) represents an extremely strong capacity to meet financial commitments, this degree is subsequently reducing as the rate goes down. The BBB- on S&P's scale is considered the lowest investment-grade by market participants. Therefore, the following – BB+, is representative of the highest speculative-grade by market participants. For that rating on, speculative grades are qualified.

A rating up to the minimum triple B (BBB) is considered as investment grade, which is a relatively safe investment. Below this threshold the riskiness of the stock increases and the bonds are defined as speculative. In fact, the higher the risk of a higher security are the expected returns. The lowest rating, D on S&P's scale, reflect the payment default on a financial commitment or breach of an imputed promise; also used when a bankruptcy petition has been led or similar action taken.

The rating agencies also perform a division for time periods: short-term and medium-long. The long-term rating is assigned to securities with a maturity of one year while the short-term ratings correspond to securities with a maturity of less than one year. They also use "+" and "-" to indicate the predictability of an event evaluation can be affect the rating the future, which could cause be in a positive or negative way respectively.

Different ratings from time to time go under reevaluations and changes. The reasons for ratings adjustments vary, and may be broadly related to overall shifts in the economy or business environment or more narrowly focused on circumstances affecting a specific industry, entity, or individual debt issue.

4.4 Rating to NPL

Those previous descriptions give us an insight of how a rating system may be analyzed as a viable solution to handle the NPL issue on the European market, and more specifically in the Italian Market. In the same way that it happens in the Credit Rating market, the use of a rating scale will provide a benchmark for evaluating the relative risk concerning to each NPL present in a bank portfolio.

The generation of the rating value is based in all the information available concerning an NPL. It may serve as a reliable tool to evaluate those ones that should be acquired in the auction phase. As described in the previous section, the lack of a well structure data on NPL, a weak NPL strategy to handle properly with those portfolios by the banks and the discrepancy between the value of the NPLs on the bank's book and the market price for these NPLs may make the banks be more reluctant in selling those assets. In this scenario, the application of rating would simplify such evaluation and maybe enable from those attaches.

One of the main differences between the rating discussed so far and the one focused in the NPL case is concerning to the analysis object. The previous one is characterized by firms searching for them own risk evaluation – or of their specific debts. In a model develop for the NPL analysis, every evaluation process and criteria is managed by the bank management related to the purchase and sale of those assets.

Therefore, is relevant to consider into the analysis some adaption that is able to evaluate this specifics assets and the risk that are related to it. Such adaptations don't differentiate in a significant way the final use of both ratings – benchmark on risk opinion between corporations or assets. The reference symbols responsible to provide a simple explanation

of the final opinion of the Standard and Poor's is an example of feature that can be reproduced achieving the same advantages in the analysis.

4.4.1 Evaluation Scale to RaOPL

As mentioned before, the alpha numeric score used by the Rating Agencies to express their opinion on the evaluated object into a scale is used as base to the definition of the RaOPL evaluation scale.

Table 5 - RaOPL evaluation Scale (Risk Value)

Risk Value			
Index		**Risk Zone**	
Label	**Risk Mitigation**	***Zone***	**Definition**
A	AAA AA+	*Very Low*	It contains very limited criticalities in terms of number and complexity, rapid mitigation that provides for a simple take-up and management of the Asset.
	AA A	*Low*	It contains critical issues reduced in number and complexity, easy to mitigate and not problematic in charge and management of the Asset.
B	BBB BB+ BB B	*Moderate*	It contains modest criticalities in terms of number and complexity, linear linear mitigation so as to hypothesize a taking charge and management of the Assets without particular difficulties.
C	CCC CC+	*High - Moderate*	It contains high and complex critical issues with consequent "warning" tending to the moderate level.
	CC C	*High - Critical*	It contains high and complex critical issues with consequent "warning" tending to the critical level.
D	DDD DD+ DD D DD- DDD- DDD--	*Critical*	It contains high and complex critical issues that are difficult to mitigate, with the consequent need to pay the utmost attention when taking Asset management and management.

The opinion stated by the scale express the model RaOPL evaluation on the data regarding the underlying asset value. This opinion is formalized based on the information available during the model application better explained in the model description. The numerical value related to each part will be discussed in the model explanation section.

5. The RaOPL Model

The model described in this section, the RaOPL (Rating Operating Project Loans), is created with the goal to develop an experimental model for the generation of Rating related to the NPL that has been put on auctions.

The result of this procedural and documental model can be defined as a synthetic Indicator which measures the risk level of NPLs (Real State Assets) developing a List Risk in which are listed all the critical issues, related to a specific Asset, divided by Areas of Expertise and more in detail by every single document of the WBS. The goal is to evaluate the NPL that should be acquired in the auction phase based on the Rating value obtained.

5.1 Theoretical Part

The Annex **2** – the General flow illustration diagram – represents the whole process that will lead to the acquisition of the Asset in the auction and then to the management activities concerning the valorization of it. As reported in the General Flow, two processes are taken in consideration:

- P1_Auction Notices and Technical Office Consultant Report;
- P2_Preparation to Auction Sales.

The P1 and P2 Processes concern about the Ex-Ante phase – before the auction. It is established a WBS to each of the process, they report the documents to be evaluate for the Rating score calculation.

The *RaOPL* is subordinated to the relation between the Areas of Expertise: *Area of Expertise A1*, the Market Asset Value (MAV) and the *Area of Expertise A2*, the Project Analysis (PA). The definition of two Areas of Expertise serves as basis to the rating as a way to better describe the asset in evaluation. An NPL asset can be described not only for the building, but also for its market appeal. For that reason, it is important to analyze both factor. In a first instance individually but then together. The analysis of both factor together allows to better understand the assets situation accordingly to the relation between the two areas and the influence of each of them in the final decision.

5.1.1 Flow Chart Process

With the General Flow the intention of represent through a diagram (Annex X), the whole process that will lead to the acquisition of the Asset in auction and then to the valorization and management activities.

The General Flow consists of the following areas:

- Owner RE.O.CO.
- Ex-Ante
- Auction

The first phases of the General Flow are the one where this model focuses. It's where the information needed to proceed with the evaluation are acquired and performed.

5.1.2 Owner RE.O.COO

The first phase is headed by RE.O.CO. which will undertake to perform a first verification of the interest of the NPL Assets and, according his own evaluation, it may eventually decide to proceed with the calculation of the NPL Rating value, identifying in this way a Project of Interest.

All the files related to a specific PI (Project of Interest) will be included in the Single Archive for their subsequent use. Once the Project of Interest is identified, the Ex-ante phase of the General Flow is started, it's conclusion lead to the acquisition of Real State in auction phase.

Procedure of Interest is the preliminary activity of competence exclusive to RE.O.CO. aiming to identify the Real State Asset within the NPL to the acquisition in the auction phase. Subsequently, the Project of Interest defined in this process is the Real State Asset intended to the acquisition the auction phase.

The following phase, the Ex-Ante, is where the two processes undertaken in consideration (P1 and P2) are located.

5.1.3 Ex-Ante

This phase is composed by three sub phases: Single Archive, Process P1 and Process P2. It is characterized to precede the auction. Therefore, it is responsible to the preparation to such procedure. It is in this scenario that the model RaOPL is applied having as directives those two proceses: ***P1_Auction Notices and Technical Office Consultant Report*** and ***Process P2_Preparation to Auction Sale***

Single Archive

After having identified the Project of Interest, it is needed a preventive and primary activity that consists in the creation of the Single Archive containing the project files available for their archiving.

The following steps are:

- collection;
- cataloging;
- creation of the Single Archive.

Being able to obtain the Single Archive also allows to obtain the benefits of concentrate (storage) all of the project files in a single media (paper and/or digital) – historical information assets of the REOCOs company and unification of *project files* using "NPL projects" and "P1 and P2 processes" attributes and, consequent, improvement of the research.

Therefore, the Single Archive is a collection containing all the available project files, coded according to a progressive number and classified by attributes. The intention with such procedure is to assure a traceability aspect to the model, interpreted as the ability to verify the history, location, or application of a project file by means of documented recorded identification.

The output of this procedure consists in an Excel table showing all the available project files. The information for each Project of Interest in the Single Archive is classified and identified in the data presented in the Table 6.

Table 6 - Single Archive Attributes table

Single Archive Attributes	
Project of Interest	Number
	External Code
	Intend of use
Location	Region
	District
	City
	Address
Auction information	Tribunal
	Procedure number
	Auction Date
	Auction starting price
Single Archive	Progressive Number
	Type of document (Auction Notice. Technical Report, DD Commercial, DD Technical, DD Legal, DD Fiscal, Attachment)
	Notes

This simple formalization on the data allows to achieve some statistics as:

1. Total number of project files available;
2. Number of NPL Projects;
3. Project file number for the NPL Project.

The result is the traceability of the project files. The above derives from the UNI 11453 regarding the requirements for the generation of the Single Archive to allow the quantitative and qualitative analysis of the WBS documents (refer to the NPL_ Report WBS).

NPL WBS

Each Process is described by a WBS (Work Breackdown Structure) that identifies the documents of the NPL Project containing the information and data about the Auction Notices and the Technical Office Consultant in P1 Process, and about the Due Diligences (Commercial, Technical, Legal and Fiscal) in P2 Process.

The WBS is a graphical representation that defines the analytic structure of the process breaking it up in levels:

- Level 0, Area of Expertise;

- Level 1, General topic of the Area;
- Level 2, Topic detail of the area;

The documents are identified by three main attributes concerning its characteristics.

The first one is the *document type* and it has three possible classification related to the document:

- Type A, document compiled with self-made *Project Files* and without site inspection;
- Type B, document compiled with self-made *Project Files* and with site inspection;
- Type C, document compiled with *Project Files* written by external consultant.

The second attribute is related to the *obligatory* of the document in order to perform the evaluation.

The last attribute is concerning the *version* in which the document is – if it has or has not ever been updated.

These attributes have been created firstly to qualify better the document, secondly because according to them they will give a different weight to the document during the Rating calculation phase, this will be argued in detail in the paragraph Raiting Calculation.

Finally, every NPL Document is defined by a Data Sheet which is compiled with the information from the Project Files in order to evaluate the completeness level, the quality level and the risks.

Process P1

The first Process of the ex-ante phase – ***P1_Auction Notices and Technical Office Consultant Report*** – is described by a WBS that identifies the documents of the NPL project containing the information and data of the Auction Notices and the Technical Office Consultant.

The WBS for the Process P1 is attached in the Annex **X**. The first subdivision of the WBS NPL is between in the Areas of Expertise defined for the process in analysis. In the P1 process case it is between the Market Asset Value (MAV) and Project Analysis (PA). From that on, its subdivided in different level. The MAV in the Process P1 is identified in two levels, by the report on the Estimation of the asset's value. The PA it is divided in a first level in General, Intervention area, Legal and administrative aspects and Project pre-requirements. The last

one refers to the graphical representation of the assets as to the schedule plan for the project.

The evaluation of P1 documents is the basis for determining the Rating RaOPL_P1 by which it is possible to define the actions that can be implemented in the following Process P2.
If a Project of Interest doesn't reach a minimum score (**C**) in the evaluation process, it is considered as "*not interesting*" and it will not go through further evaluations.
Otherwise, if the Project of Interest reaches a score whose problem level is not High, it could happen the following situations:

1. Further analysis using DD – Due Diligence and evaluation of RaOPL_P2;
2. Direct attendance to auction.

The delimitation of each decision is based in the following criteria within the model's scale.

Table 7 - Decision Procedure on RaOPL_P1

RaOPL_P1 Rating	Problematic Level	Action	P1 Outcome
RaOPL < D	High	*Leave*	Project not interesting
D ≤ RaOPL < C		*Stand by*	Project not interesting but that can be evaluated again in the future
C ≤ RaOPL < B	Medium-High	*Due Diligence*	Project that must be studied in deep in order to evaluate P2 Process
B ≤ RaOPL < A	Medium-Low		
A ≤ RaOPL	Low	*Go to*	Project that does not have to be studied in deep in order to attend the Auction

P1 is needed to identify if there are very critical issues and to identify if Due Diligence are needed or not. For that, it also reports the relation between the Market Asset Value and the Project Analysis in graphical way better described ahead. A high evaluation grade of the Project of Interest in the P1 process reflects a low level of critical issues what allows the performance of the process P2 with the same information available in the P1.

Process P2

Following the passage of the Ex-Ante phase, it is the start of ***Process P2_Preparation to Auction Sale***. Similar to P1, a specific WBS is prepared, which produces the Documents

whose content is obtained from the availability of DD and allows to calculate the value of the Rating (RaOPL_2).

The description of the process – as the previous one – is defined by the structure of a WBS. The output is also an Excel file subdivided in two parts, in the first one there is the WBS graphical representation – a Flowchart diagram defined by levels whose terminals correspond a specific document. The second part is aimed at defining the document themselves, to each of them is associate an Identification Code, a name and a description, the attributes and the references are also reported to the Data Sheet (Layout).

The WBS for the Process P2 is attached in the Annex **Y**. The first subdivision of the WBS NPL is between in the Areas of Expertise defined for the process in analysis. In the P1 process case it is between the Market Value and Project. From that on, its subdivided in different level. The Market Value in the Process P1 is identified in two level, by the report on competitive analysis, asset evaluation and calculation methodology. The Project it is divided in a first level in Asset's general information, operation area, Legal and Fiscal – Legal Due Diligence and Fiscal Due Diligence, Technical – refers to the graphical representation of the assets as to the schedule plan for the project, Economic and Sensitivity Analysis.

The evaluation of P2 documents is the basis for determining the Rating RaOPL_P2 intended as "critical indicator" obtained through the identification of the "NPL Project Risks". The usefulness of RaOPL_P2 is to allow decisional support to a better evaluation for the acquisition of the NPL Project at auction. Therefore, P2 evaluates in a detailed way the real state of the Asset, identifying which are the main risks of the NPL and the prevention actions to relate with them.

5.1.4 Auction

This phase is the point where the acquisition of the assets is performed. Therefore, all the methodology developed is to guide the final decision made about the NPL portfolio. As mentioned before, NPL sales are an important tool for the company to more effectively manage credit losses on its delinquent loan portfolio. The non-performing loan auction is

characterized as being a competitive procedure, this scenario requires that the final report of the model may be able to provide the most adequate support to it – practical and reliable.

5.2 Operational Part

The procedure to obtain the *RaOPL* value is according a predefined process in the following phases:

1. Valuation of the *WBS Documents* through the construction of a specific *Data Sheet (Layout)* reporting the information and data from the *Project file*;
2. *Quantitative and qualitative Analysis* of a single *Layout* and therefore the *WBS Document* to them associate;
3. Risk analysis and creation of the Risk List*;*
4. Evaluation of the *Driver*;
5. Calculation of the *RaOPL* value, identification of the *Rating Band* and the *Evaluation Quadrant* – this evaluation process will be better explained in the end of this section.

5.2.1 Compile Documents

For each NPL Project there are a certain number of files available classified according the attributes of the Auction Notices/Technical Office Consultant Report (Process P1) and DD (Process P2) denominated Project Files. Within the Project File is expected to find the information and data needed to compile the WBS documents descripted before.

It is important to specify that for P1 are used only two Project Files (Auction Announcements – BdA and Technical Office Consulting – CTU) and eventually some attachments, in P2 there are four Due Diligence (Commercial, Technical, Legal and Fiscal) a notarial report and attachments.

- **Documents**

Those documents are descriptions that qualifies content elements of WBS and that contains reference to the data sheets (layout), and to the Single Archive. A summary description of the items object of evaluation of each document is reported in the Attachments,

- **Description**

Each one of the processes is composed by a different set of WBS documents. The Process P1_Auction Notices and Technical Office Consultant Report is composed by 7 documents. The Process P2 - Preparation to Auction Sale is composed by 11 documents.

Each document describes the individual elements of the WBS in order to perform the quantitative and qualitative analysis necessary to identify the risks.

The Tables 8 and 9 give a summary description of the aim of each document.

Table 8 - Process P1 document descriptions

Process P1	
Document	**Description**
Determination of the Market Value of the Good object of the Technical Report	It consists in calculating the most probable Market Value of the Good described in the Technical Official Report according to the provision of the Technician appointed by the Judge of the Bankruptcy Procedure.
Calculation of the "convenience value" of the Asset in the Phase P1	It consists in identifying the most probable "convenience value" of the acquisition price of the Assets subject to insolvency proceedings in the phase ex-ante Auction Notices.
Technical description of the Good and the Inspection Area	These are data and information describing the technical aspects of the good based on the Technical Report ordered by the Judge of the Bankruptcy Procedure.
Documentation concerning the area of influence of the Good	Collection of the information and data concerning the area of the good in relation to the territorial environmental and urban aspects (PRGC)
Legal Documents	The legal documents consist: - The order of sale, in which contains the methods of the auction, in particular any eventual subdivision of the asset in one or more lots and all the information related to the Auction Notices; - the contracts with the credit institutes, specifying if it is about a leasing, land loan, etc.; - The mortgage registration notes which reports all the data concerning the registration (assurance and mortgage) and the transcript (foreclosures and seizures).

Diagram and graphic tables	Documents containing the graphic diagrams and general drawings deriving from the real estate appraisal (Auction Notes/Technical Office Consultant Report), that allows to identify the form, the planimetric distribution and that is considered useful for the knowledge of the project.
Schedule	Documents containing the general indications of the time, in terms of the duration and deadlines, expected by the REOCO for the evaluation of the asset.

Table 9 - Process P2 document descriptions

Process P2	
Document	**Description**
Analysis of the competitive context	Evaluation of the socio-economic context, demographic trends, real estate dynamism and current market prices.
Asset Evaluation	Evaluation of the asset in terms of its potential on the market, reports an analysis regarding its main characteristics and unit price. The analysis must be supported by market data, deriving from the databases and analysis on the territory.
Calculation methodology	Its uses the calculation methodology in order to identify the market value and compare it to the results obtained in the phase of Auction Notices and Technical Official report. Market value determination according to the directive of the Agenzie delle Entrante. The analysis must be supported by market data, deriving from the databases and analysis on the territory.
General description of the Asset, goals and objectives	Reports the general classification data, the asset state, its surface and the state of the installations The objectives to be achieved are set out, the actions to be carried out and the expected results, in order to describe the object of assessment in the broadest and most general form.
Documentation relating to the area of intervention	Sono contenute le indicazioni urbanistiche, catastali, ambientali e territoriali dell'Asset NPL.

Legal Due Diligence	Verification of documentation as proof of origin, cadastral survey, examination of prejudicial transcripts such as voluntary and judicial mortgages, contracts, etc.
Fiscal Due Diligence	Documentation through which you have the possibility to carry out a check and a verification of the tax requirements of the Assets useful in order to identify the tax costs to be incurred and to be included in the ACR.
Diagram and Graphic tables	Documents containing the graphical diagrams and general drawings, deriving from the Technical Due Diligence, which allow to identify the forms, the planimetric distribution and all that is considered useful to a better understanding of the Asset.
Schedule	Document containing the indication of maximum time, in terms of duration and date, provided by REOCO for the enhancement of the planned intervention.
Cost Revenue Analysis	It consists in the evaluation of the cumulative effects of the costs and income of the Assets in question, in the period of time calculated from the acquisition to the actual production of revenues from sales and/or management. The TIR and VAN parameters obtained must contribute to the qualitative assessment of the ACR document.
Sensitivity Analysis	The SWOT analysis is the sensitivity analysis performed here. It is a tool to support decisions and responds to a need to rationalize decision-making processes to evaluate alternative development scenarios while taking into account internal and external variables. Specifically, this analysis evaluates the Strengths and Weaknesses of a

	system to highlight Opportunities and Threats. The first two, being variables that are an integral part of the system on which it is possible to intervene, are considered endogenous factors. In the other hand, Opportunities and Threats are considered exogenous factors because they are external to the system but still able to condition it.

- **Layout**

Summary sheet of the WBS Documents which contain the information concerning the Project Files that will be the subject of the qualitative and quantitative analysis. Each one of the Process is composed by a defined number of document.

Excel file divided in five sections, in each of them is reported all the information collected in the file of a specific NPL in the Single Archive. Every information used to compile the layout is referenced to the file in the Single Archive. The goal is to verify the presence and the quality of the information scoring it with a grade between 1 and 10 that will support the determination of the final Rating.

it is composed by five sections:

I. Heading;

In this first section it is reported general information about the project. The identification of the project is reported – title and number – as of the good itself – location, use and synthetic description.

II. WBS NPL;

In the WBS NPL, it is reported the identification of the document concerning its Area of expertise, project identification and synthetic description of the

document content. Lastly, it identifies the attributes of the document described in the previous topic.

III. Single Archive;

This section reports a list of the attachments present in the Single Archive from where the information used to compile the document were extracted. Each attachment is identified by its progressive number and type.

IV. Data collection and the attachments information;

This section is where the information of the attachments relevant to the evaluation of the project concerning that specific document layout is reported. The following tables 10 and 11 describe the specifics information of each document for both process.

Table 10 - Process P1 data collection

Process P1	
Document	**Data and information collection**
Determination of the Market Value of the Good object of the Technical Report	- Identification and description of the good - Calculation of the market value of the asset
Calculation of the "convenience value" of the Asset in the Phase P1	- Comparison MV_Technical Report x Auction Price
Technical description of the Good and the Inspection Area	- General Classification (existing description and framework of the region) - Cadastral Classification - Evaluation of the Asset instalations
Documentation concerning the area	- Territorial and environmental aspects - Reference PRGC

of influence of the Good	
Legal Documents	- Sales Auction Information - Ownership - Urban planning and cadastral compliance - Constraints and charges bonds by the purchaser - Mortgages and transcriptions
Diagram and graphic tables	- Cadastral plans - Urban and municipal - Architectural and design plans
Schedule	- Elaboration time of the offer

Table 11 - Process P2 data collection

Process P2	
Document	**Data and information collection**
Analysis of the competitive context	- Geographical, demographic and urban context - Real estate dynamics and market process
Calculation of the reference Market Value	- Identification of Asset area - Calculation of the Asset Market value
Calculation of the "convenience value" of the Asset in Phase P2	- Comparison technical Report x DD
Description of the Asset, indication of the objectives and purpose of development	- General classification (existing description and framework of the region) - Cadastral Classification - Evaluation of the Asset installations - Development hypotheses
Description of the Asset, indication of the objectives and purpose of development	- Territorial and environmental aspects - Reference PRGC - Conversion hypotesis
Legal Due Diligence	- Sales Auction Information - Ownership - Urban planning and cadastral compliance - Constraints and charges bonds by the purchaser - Mortgages and Transcripts - Relevant criticalities

Fiscal Due Diligence	- Existence of pending fiscalities - Taxes
Diagram and Graphic tables	- Cadastral plans - Urban and municipal - Architectural and design plans
Schedule	- Processing time - Time for indirect activities - Expected times for revenues
Revenue Cost Analysis	- Economic results
Sensitivity Analysis	- SWOT analysis

V. Evaluation and outcome.

This section indicates the outcome of each document during its compilation. Therefore, it is the final representation of the quantitative analysis and qualitative analysis of the document in question – both of them are described in the following of this section.

Firstly, the quantitative analysis is represented with the indication of the presence of the information relating each part of the document. In the case in which the information needed is presented, it is evaluated in a grade analysis due the level of completeness of the information.

In the same way, the qualitative analysis is reported followed by the risk related with any critical issue assumed in the evaluation of each part of the document.

- **Risk List**

By evaluating the Documents, some critical issues come out and these will lead to a certain risk. Identifying risks is important to describe a specific Asset because this can irredeemably influence the consideration on it.
In order to do that in the easiest way possible, it has been created a Risk List Database in which all the risks identified are catalogued and coded.

The Risk List Database file consists in a table composed by all the identified risks, each one of them is associate to a code and an identification name, a typology (demand, disponibility, construction, operative) and an attribute (normative, administrative, design, processing, finance, etc.).
For each document there are specific risks that may occur as it is shown in the following table.

In the next columns, it's inserted the cause and the effect of the identified risk, thanks to that it is possible to attribute a numerical value to the risk - obtained by the probability of occurrence and the impact of its damage. Lastly, it has been identified the mitigation tools to which we have been awarded a percentage value that shows the capability of apply such instrument.

The risks identified in P1 must been solved in P2, otherwise they will come out again, since the second process is the evolution of the first one.

The risk list with our cause, effect and mitigation tools defined is reported in the attachments of this document.

5.2.2 Quantitative Analysis

Evaluation of WBS Documents regarding the presence or absence of the information of Project File. For each one of those documents is applied a judgment regarding the level of

the information provided in the documents compilation. This evaluation is performed in a range described in the table 12 below.

Table 12 - Quantitative analysis evaluation

Present	Judgement	Adding score to qualitative analysis
No	Missing	+ 0,00
Yes	Strongly Incomplete	+ 0,25
Yes	Incomplete	+ 0,50
Yes	Complete	+ 1,00

5.2.3 Qualitative Analysis

The qualitative analysis of the WBS_NPL documents consists in evaluating the qualitative level of the data and information of the individual WBS_NPL documents. It has the goal to evaluate the reliability and the completeness of the information and data content in the project files (Auction Notices and Technical Office Consultant Report in P1 and DD in P2).

It is developed through the introduction of three specific "evaluation criteria" to which a score is assigned whose average defines the final value intended as the final "judgment" of the document under examination.

The three "evaluation criteria" are as follows:

- Detail level;
- Criticality level;
- Reliability level.

With the detail level, it is intended to formulate the qualitative judgment deriving from the evaluation of the "informative detail" available, with regard to the composition and degree of the data and information description reported in the document under examination. With the Criticality level, the aim is to formulate the qualitative judgment of the "critical effects" detected following the evaluation analysis of the data and information reported in the document under examination. With the level of Reliability level. The aim is to formulate the qualitative judgment on the grade of trustworthiness of the sources that has written a specific file in analysis, in particular if it has some certification (e.g. RICS) that guarantee credibility of the data and information reported in the document in question.

For each of the three parameters a score is expressed among those shown in the Table 13.

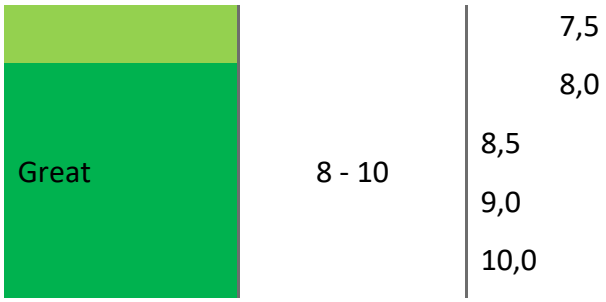
Table 13 - Qualitative analysis score

Score
0,0
3,0
5,0
5,5
6,0
6,5
7,0
7,5
8,0
8,5
9,0
10,0

The average of the scores of the three parameters is then used to obtain the score of the qualitative analysis of the individual documents. The value obtained will fall within a band that represents a specific judgment as shown in the following table 14.

Table 14 - Qualitative analysis evaluation

Judgement	Range	Score
Insufficient	0 - 5,9	0,0 3,0 4,0 5,0 5,5
Sufficient	6 – 6,9	6,0 6,5
Good	7 – 7,9	7,0



5.2.4 Risk

As defined before, the Risk List is a file consisting a table composed by all the identified risks regarding those previous analyses. In the next columns, it's inserted the cause and the effect of the identified risk, with the attribution of a numerical value to the risk - obtained by the probability of occurrence and the impact of its damage. The likelihood and the impact of the risk are evaluated in a scale between 0 to 5 and then multiplied (and scaled to 10) to achieve the value of the damage concerning such risk.

Table 15 - Risk evaluation scale

LIKELIHOOD		**IMPACT**		**DAMAGE**	
Value	*Level*	*Value*	*Level*	*Value*	*Level*
5	Almost Certain	5	Catastrophic	8,0 - 10	Critical
4	Likely	4	Major	4,5 - 7,9	High
3	Possible	3	Moderate	2,0 - 4,4	Moderate
2	Unlikely	2	Minor	1,0 - 1,9	Low
1	Rare	1	Insignificant	0,0 - 0,9	Very low

Table 16 - Risk relation likelihood and impact

Likelihood					
Almost Certain	2	4	6	8	10
Likely	1,6	3,2	4,8	6,4	8
Possible	1,2	2,4	3,6	4,8	6
Unlikely	0,8	1,6	2,4	3,2	4
Rare	0,4	0,8	1,2	1,6	2
	Insignificant	Minor	Moderate	Major	Catastrophic

Impact

After the risk calculation, it’s defined a mitigation tool related to that risk and its appropriate description. The mitigation tool identified may be undertake in a percentage number that

evaluates the capability of its application. Those values have an impact on the final value of the Rating itself.

5.2.5 Drivers

The *Driver* is a tool that allows simultaneously:

- A documental analysis;
- A conversion of the normative parameter to a numeric risk value.

A project may be exposed to exogenous and endogenous risk. The exogenous risk are the external factors that influence positively or negatively to the final output of the project. Those factors do not depend on the project, but reflects the context in which the project it is surrounded. While the endogenous risk are technic-economic characteristics of the project itself.

Those risks elements, exogenous or endogenous, should be completely identified and analyzed in order to have a clear image of the conditions in which is possible to mitigate or anticipate it. Only through a careful and accurate analysis of the internal and external factor is possible to define a risk value to the project.

The Driver are subdivided by *Process* (P1_Auction Notices and TOC Report and P2_Preparation of the Auction Sale) and by *Category* (external factor and internal factor) in the cal.

The external factor is related to the characteristics exogenous to the project and then are useful to all of the Projects. The aim, through the study of the exogenous factor, is to realize a socio-economic analysis of the context in which the project is located, to understand how these contexts may influence positively the outcome of the project.

For the internal factors – all of the factor that are characteristics of the project and depends on each particular project subject to evaluation – are subdivided in two Areas of Expertise: A1_Market Value and A2_Project.

The goal is to achieve an analysis of all the projects characteristics, may they be technical, economical, financial and managerial, to understand how those characteristics may influence the success of the project. Supplementing what has been said, the *Driver* are functional to evaluate all the risk aspects of a project, starting from the examination of the *WBS Documents*, which will be assigned an identifying value of the degree of risk.

Each *Driver* may correspond to one or more *WBS Documents* and each *Document* may be related to one or more *Driver*. The Score of the *Driver* is equal of the average of the score of the *Document(s)* which qualify it.

5.3 Rating Calculation

After the rating evaluation on the qualitative level of the documents, quantitative and the risk influence on this final value – as previous described. Each driver/document is weighted in your Area of expertise following the attributes that defined them. The first two attributes – Obligatory and version – has a binary value (1 or 0) and the Type follows the value 1, 2 and 3 (A,B and C respectively) in the sum of the total amount. It adds app a relevance criterion that is up to the person in charge of the evaluation to quantify how relevant this document is to the risk analysis in a grade up to five. This decision is based I the assumption that the attributes Type and the Relevance are more important in the weighting process. The Tables 17 and 18 present a hypothetical case seven documents, The first one classifies how the documents are characterized and the second one the weighting itself.

Table 17 - Hypothetical weighting attributes part 1

ATTRIBUTES		
Obligatory	*Updated*	*Type*
Yes	No	C
Yes	No	C
Yes	No	C
Yes	No	C
Yes	No	C
No	No	C
No	No	A

Table 18 - Hypothetical weighting attributes part 2

Influence					
Obligatory	*Updated*	*Type*	*Relevance*	*Total*	*%*
1	0	3	5	9	17,6%
1	0	3	4	8	15,7%
1	0	3	5	9	17,6%
1	0	3	4	8	15,7%
1	0	3	4	8	15,7%
0	0	3	3	6	11,8%
0	0	1	2	3	5,9%
71,4%	0,0%			**51**	**100,0%**

Therefore, it's possible to achieve value for each Area of Expertise of the Project for each Process and evaluate it following the procedure described in the following section.

5.4 Graphs

For each one of the evaluations performed in the Process (P1 and P2) there will be represent two different graphs: Zone graph and the RaOPL graph. The main difference is the outcome expected of the evaluation of those graphs by each process. By the evaluation of the Rating RaOPL_1 it is possible to define the specifications necessary for the preparation of the Due Diligence which may be of the "light" or "full" type. On the other hand, the value of the Rating RaOPL_2 intended as "critical indicator" obtained through the identification of the "NPL Project Risks".

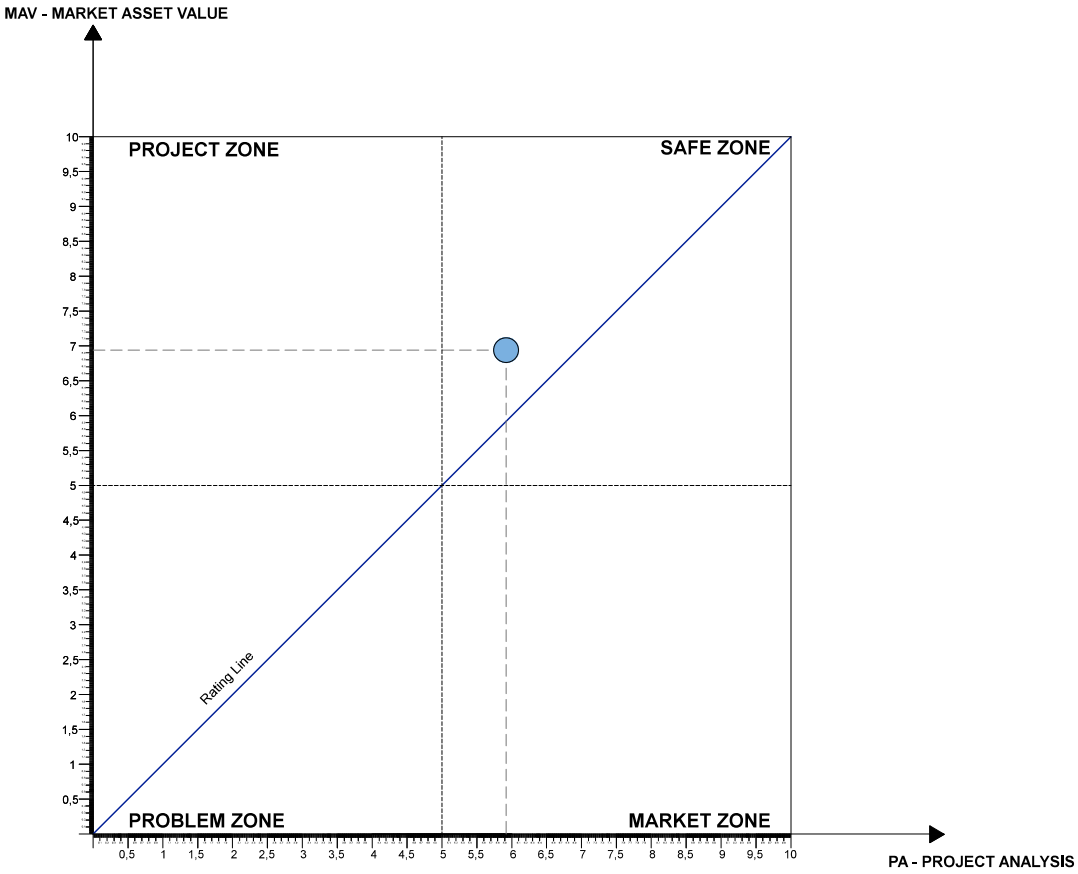
- **Zone graph**

This graph represents the relationship between the two Areas of Expertise has as it goal to understand the potential of the NPL in question. By inserting the score obtained for the Asset Market Value in the axis and in the abscissa the Project Analysis, you will get a point that will fall within four quadrants or the core neutrality, each representing a different scenario:

- high MAV and PA, green area (Safe zone);
- high MAV and low PA, blue area (Project zone);
- low MAV and high PA, yellow area (Market zone);

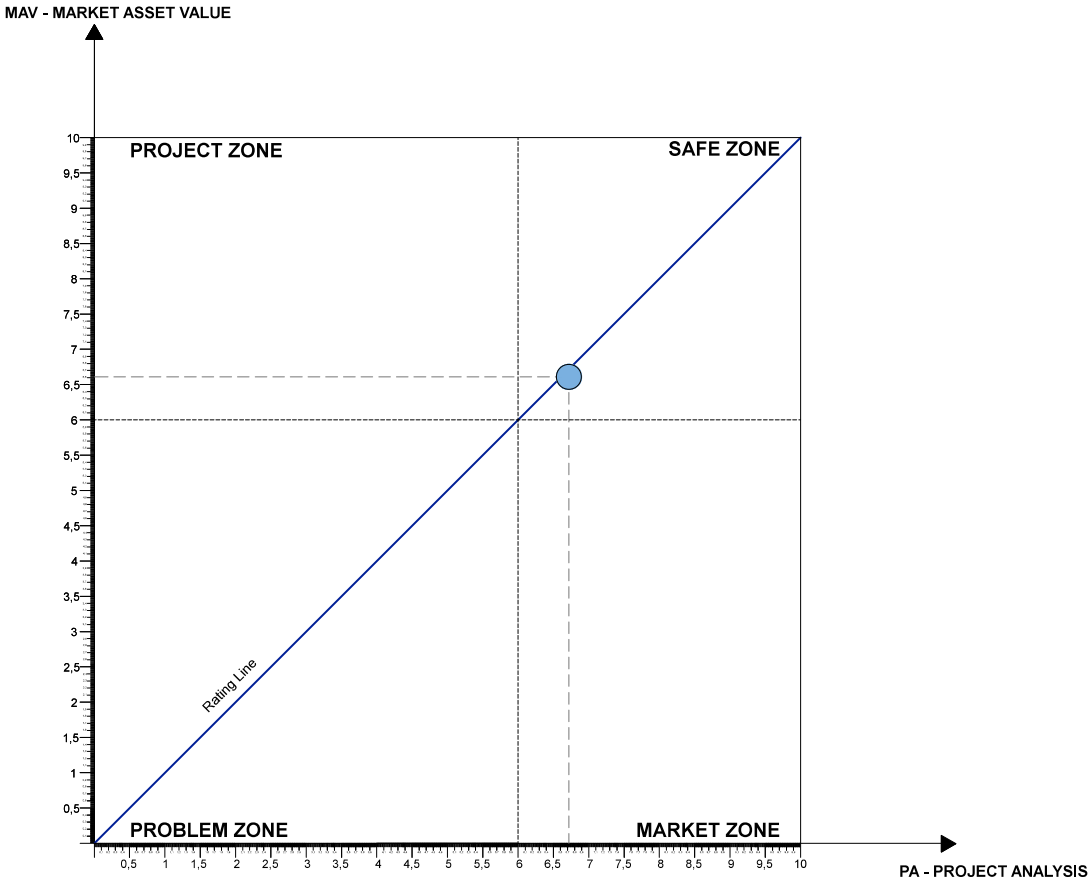
- low MAV and PA, red area (Problem zone).

Below is reported the score of the two Area of Expertise, obtained by the average of each single ***Driver*** RaOPL Graph for the P1 Process and P2 Process for a same Project*:*



Area	Score
MAV	6,94
PA	5,92

Graph 9 - Zone Graphic P1



Area	Score
MAV	6,61
PA	6,72

Graph 10 - Zone Graphic P2

Each one of the zones reported in the Zone graph represents the Area of expertise in which the risks and critical issues related such asset are more related to. Therefore, by reporting the impact of each area in the asset evaluation it highlights the area in which the risks are attached.

Table 19 - Critical point in the Zone graphic

C.P. Critical Point		
Criticità	***Qualitative level***	
	MAV	**PA**
PROBLEM		
MARKET		
PROJECT		
SAFE		

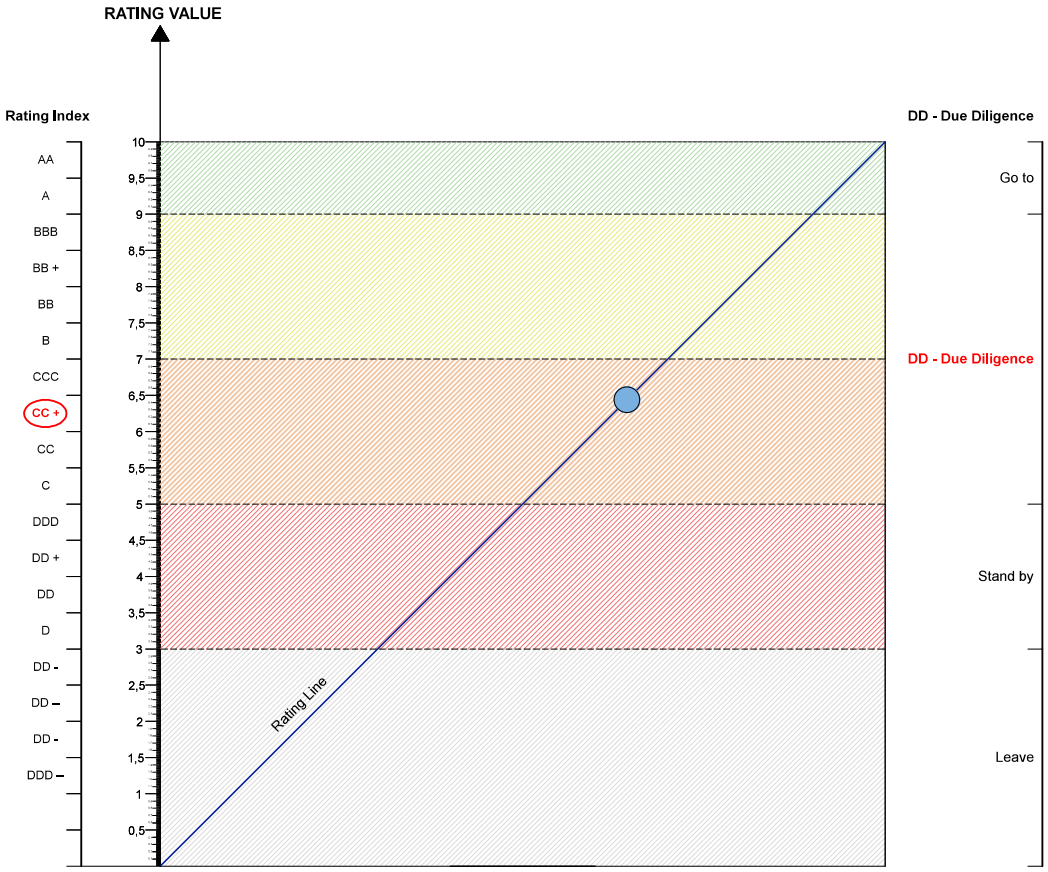
On the main axes, there are allocated the value between 1 and 10 that represents the score of the Area of Expertise being evaluated, the Market Value and The State of Fact. The Rating Line, which has as its start point the origin of the axes, has a 45° inclination in respect to the main axes and its purpose is to represent the balance level between the Makert Asset Value and the Project Analysis.

The closer is the final point, obtained by the intersection of the score in the two Areas of Expertise in question, to the Rating Line, more balanced will be the relation between the Area_A1 and the Area_A2. In the other way, the further the point above the Rating Line, there will be a bigger influence of the Market Asset Value data than the Project Analysis. To the final rating, it is calculated an average between the rating in those two areas in order to achieve a final value score – located in the rating line.

- **RaOPL Graph**

The graph shows the final rating score, it has the aim to identify the Rating band, which express the level of criticality of the NPL in which the score falls.

The next image shows the RaOPL graphic readjusted to a NPL concerning the P1 process.



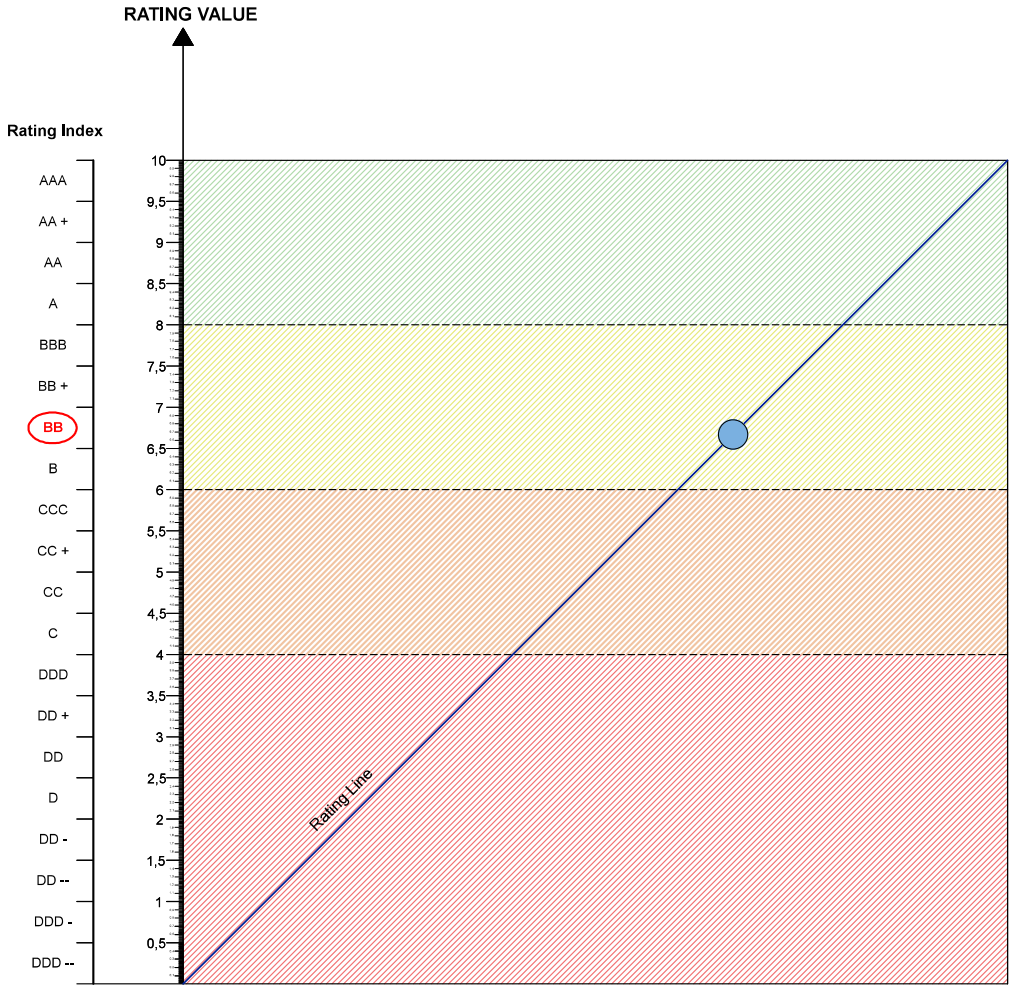
Rating Index	*CC+*
Risk Level	*Low*
Data Quality	*Satisfactory*

Graph 11 - RaOPL graph P1

The Rating Band (green, yellow, orange, red and grey) express the level of critical issue of the NPL and they have a range defined to our consideration about the risk. In the case in question (Process P1_ Auction Notices and TOC Report), the level of details of the project is inferior than in the subsequent process, for that reason some adjusts are made in the Graph in order to adequate to the higher risk exposed in such evaluation. First of all, the range of the Rating Bands are readjusted giving a bigger proportion to the ones that may carry out less risks to the procedure – the lowest level of the rating. Another adaptation is that the Risk Value and Risk Mitigation are reduced on the maximum value which them can achieve, for the same reason.

The detail level that the fours zones refer are:

- Go to (Green);
- DD – Due Diligence (Yellow);
- DD – Due Diligence (Orange);
- Stand by (Red);
- Leave (Grey).



Rating Index	*BB*
Risk Level	*MODERATE*
Data Quality	*Satisfactory*

Graph 12- RaOPL graph P2

For the Process P2_Preparation to Auction Sale, the Rating Band (green, yellow, orange and red) express the level of critical issue of the NPL but with a higher level of details due the Due Diligence defined previously. They also have its range defined by the “rating manager” according to his own consideration about the risk. In this case, the range of

the Rating bands are redistributed, because to the fact that the depth of information wanted is already achieved in this final phase, therefore is exposed to less risks due missing data than the previous one.

The detail level that the fours zones refer are:

- RaOPL Positive Zone (Green);
- RaOPL Warning Zone (Yellow);
- RaOPL Negative Zone (Orange);
- RaOPL Null Zone (Red).

6. Case Study

As exposed before, with the main intention of applying the model in a practical way, initially, three different case studies were developed. The purpose with these application is not just to test the feasibility of the model RaOPL. The process of rating real assets with the model developed help us to have a better understand of the it's issue and to analyze the model in a more critical and reliable way.

Those cases study are not simulations, they are based on data from a bank. The information provided is the one that would fulfill the Single Archive. It has for the P1 process the Auction Notices, the Technical Official Report about the building and others attachment as floor plants and mortgage notes for example. In the other hand, for the P2 process, the data generate by the Due Diligence relevant to that specific asset.

As we could perceived through the model explanation, the standardization in the RaOPL methodology regarding the type of the asset is aligned with the high information level in the NPL market. This specification may not put all the assets in a fair benchmark comparison level. This review is applicable since the model is dealing with asset with different demographic characteristics and property managements. A well performed qualitative evaluation of the assets in the rating process and in the critical reasoning during the compilation of the documents is the best way to circumvent this issue.

Table 20 - Single archive for the Study Case

Study Cases Attributes – Single Archive				
Project of Interest	Number	1	2	3
	External Code	PD-ROV-0001	RE-GAT-0001	LE-LEC-0002
	Intend of use	Residential	Industrial	Commercial/Office
Location	Region	Veneto	Emilia-Romagna	Puglia
	District	PD	RE	LE
	City	Rovolon	Gattatico	Lecce
	Address	Via San Giorgio	Via Don Milani	Via Corrado Giaquinto
	Tribunal	Padova	Reggio Emilia	Lecce

Auction information	Procedure number	1076/2013	113/2014	20/2014
	Auction Date	12/03/2018	15/03/2018	16/03/18
	Auction starting price	256.00,00 €	1.420.500,00 €	368.190,86 €

Those three cases summary described above were chosen due its difference regarding it intend of use and level of information. The information and documents available for the Process 1 procedure are described in the following table.

Table 21 - Documents available by Project

	Auction Notices	Technical Report	Attachments	Note
1	X			Auction Notices
		X		Technical Report
			X	Energy certification
			X	Energy certification
			X	Energy certification
			X	Energy certification
			X	Energy certification
2	X			Auction Notices
		X		Technical Report
3	X			Auction Notices
		X		Technical Report
			X	Plant Lot 1
			X	Plant Lot 6
			X	Plant Lot 8
			X	Plant Lot 9

In the compilation procedure for the first project, the main evaluation issue and related risk was regarding a lack of information in the documents. For the second project, despite of the same situation concerning the lack information updated, it was feasible to point some critical issues of the Asset based on the data obtained. The third Project is described by similar critical issues but with a worse Project Analysis evaluation leading to a better degree of balance between the two areas evaluated. It is relevant to highlight that the Graphical schemes expected into the documents evaluation are not achieved in the Project – which may lead to a low relevance attribute in the weighting of the documents on the Project Analysis area.

Table 22 - RaOPL_P1 Study Case

Process P1				
	MAV	PA	RaOPL_P1	
1	6,7	5,6	6,2	CC+
2	5,0	6,0	5,5	CC
3	4,9	5,3	5,1	C

The evaluation of the risks listed on those analysis are characterized by high level of capacity of mitigation. As mentioned before, the main risks identified are related to lacking of updated data concerning the Asset. The table *X* show us that those three project require an Full Due Diligence in the RaOPL_1 Rating. So the documentation available for the Process P2 of each of those Projects include the Due Diligence Commercial, Legal and Technical.

In the compilation process for the Process P2 some documents have a questionable performance. The Analysis SWOT doesn't reach any depth in the project analysis despite some critical issues already discussed in previous documents in the case of the last two projects. The lack of information has less effect on the Asset evaluation as expected too – information concerning the territorial and environmental aspects still vague. It is evident that it's more clear the work that need and are feasible to be done in the Assets – specially for the first two projects. It allows a well-defined risk list and it subsequent mitigation tool. Some information, in the way that is disposed in the DD, doesn't allow an accurate analysis of the Asset, for example, in the first project, the costs are defined grouping together the three lots the Revenue Cost evaluation. In the other hand, some requirements in specific documents are not presented by the documents – like the GANTT distribution.

Table 23 - RaOPL_P2 Study Case

Process P2				
	MAV	PA	RaOPL_P2	
1	6,8	7,0	6,9	BB
2	6,7	5,8	6,3	CCC
3	6,0	5,5	5,8	CC+

After the final evaluation, it's evident that the issues highlighted in the procedure are more related to actual critical points of the assets than the first Process. The risk list of each Project is not necessary smaller than the one defined previously, but more accurate. It's relevant to emphasize that most of the risks identified has a high level of mitigation capacity in the analysis.

All the pointed discussed in this section focuses on the importance of the subjectivity of the evaluation performed. Therefore, the practical application of such model requires an well-structured process as much as an user capable of evaluate the critical issues and its implication to the Asset evaluation. Due the fact that the information of each document cannot be disclosure, a description of the information expected is described in the attachments of this document.

7. Discussion on the Model

7.1 Model Comparison

This section is defined based on the criteria publicly disclosed by The Standard and Poor and Moody's agencies. The intention with this is to better understand the rating process in order to evaluate the RaOPL model in comparison with those ratings.

In a general way, to define a securitization rating, the agency follows a analytic framework composed by a well-defined set of key areas to be evaluated. This main areas may be summarized as: Credit Risk of the asset, Legal and regulatory risk, Payment Structure and cash flow mechanics, Operational and administrative risks, and, at least, the counterparty risk (S&P Global, 2011). The securitization rating for evaluation of a bank nonperforming loans takes into account the whole portfolio of NPLs of the bank. This kind of evaluation doesn't allow a detailed analysis on the underlying asset value for each specific project. This point it's a critical issue in which the RaOPL model aims to make an opposition.

The first key step is the most relevant to the rating agencies in the structure of the finance rating, the analysis in the credit quality. It is defined based in the estimation of the amount of losses that the asset would suffer in a crisis situation. Different types of assets may need a different way to achieve that value. Interpolation and benchmark are two common way of achieving that. S&P Global Ratings uses a principles-based approach for assigning and monitoring ratings globally. These broad principles apply generally to ratings of all types. However, for certain types of issuers, issues, asset classes the Rating Agency complements these principles with specific methodologies and assumptions.

The Rating related to mortgages and Assets Backed Securitization (ABS) the agencies tend to develop the perception of the rating agency on the subject based on the following factors: financial/credit status (or even mortgage enhancement), legal framework (may add regulatory situation), cash flow projection and investment. In the case of nonperforming

loans, most of those factors doesn't properly apply due the fact that the scheduled payment are not being performed any more by definition.

As mentioned before, the model developed aim on evaluate the "risk" of valorization of the underlying value of the asset related to each specific project – what set it up in a different scenario than the securitization rating. In order to have a benchmark more relevant to the RaOPL model, the description of some rating criteria more specific to it object analysis of the model is required. In that way, regarding to nonperforming loan, we can level it with the *Global Housing Rating* in the Moody's Criteria (Moody's Investors Service, 2011). For both of those cases, the object analysis is the asset itself and the financial condition surrounding it.

This specific rating methodology explains how the agency approaches to asses credit risk to bonds secured by housing projects worldwide. The start point for such methodology is the identification of factors that will guide the scorecard of such evaluation. The rating is assessed based in three broader factors:

- Financial Position
- Market Position
- Property management

The intent in evaluate a project's financial position is to determine its ability to support future debt service based upon its existing and projected revenue-generating capabilities. The debt service coverage ratio (DSCR) is a key metric used to measure the strength of a project's net operating income relative to its debt service obligations, both currently and in the future. In order to inform the assessment of the future cash flow and debt service coverage, the agency reviews historical audited financial statements as well as projections for both new and existing projects. In addition to this metric, it is reviewed the project's liquidity and reserves to better understand how I deal with extreme situations. Finally, it's performed an evaluation on the diversity and sources of housing project revenues.

The market position is defined by the agency assessment of project finance housing transactions focused heavily on an analysis of the project's market position which is a key driver of project revenues. In evaluating the market position of a property, factors that

impact project occupancy and revenue volatility are taken in consideration. The ratio eligible tenants to the number of units in the project, the project rent level relative to the market rent, size . These include elements such as whether tenants are required to live in the housing, the ratio of eligible tenants to the number of units in the project, the project rent levels relative to market rents, and the size and geographic diversity of the projects in the financing.

The assessment of property management complements our quantitative ratios and provide further insight into the credit quality of the project financings. An experienced management team can reduce the likelihood of operating problems and speed up resolution when they occur, while poor quality may increase the likelihood and/or delay resolution. Likewise, affiliation with either a public sector entity or with a highly rated third party that provides support through certain guarantees or subordination of expenses can also bolster credit quality.

For each one of those factor it is assigned a weight and a set of sub factors (also with its respective weights) project specific.

Table 24 - Score Cards factors in the Global Housing Projects

Factors	Weight	Sub factors	Weight
Financial Position	0,65	Debt Service Coverage	0,35
		Liquidity & Reserves	0,20
		Diversity & Source of Revenues	0,10
Market Position	0,20	Demand Drivers	0,10
		Market Size	0,10
Property Management	0,15	Ownership/Affiliation	0,10
		Project Management	0,05

The final evaluation of each sub factor within the Moody's criteria scale is reported above are converted into a numeric based value in order to proceed with the evaluation. Each numeric value is multiplied by its relative importance and then mapped back to a alphanumeric score (Moody's Scale). The calculation back to an alphanumerical value is

relating each value in a range of 1 starting from 1.5 within the 20 to a rate. For example, between 0 and 1.5 it is rated as Aaa, from 1.5 to 2.5 is rated as Aa1 and from this on.

Table 25 - Conversion to numeric value for the weight calculation

Aaa	Aa	A	Baa	Ba	B	Caa	Ca and Below
1	3	6	9	12	15	18	20

Besides the opinions concerning those specific factors, the rating evaluate a number of additional considerations concerning credit. It may include the market location, the level of occupancy and the occupancy trend, property characteristics (may suffer variation in projects for niche audience), legal structure and construction status.

The legal structure focuses on reviewing the legal documents that pertain to the repayment of debt to determine the pledge available to and the rights of bondholders under both normal and stress scenarios. While the construction status represents a review on how construction risk will be managed and the array of protections put in place to defray risk in order to determine how the construction phase could impact bond payments.

- Similarities with the RaOPL model

All the similarities discussed are subsequent to the final use of both ratings – benchmark on risk opinion between corporations or assets. Regarding the broader aspects of the rating methodology, the model studied is able to cover up the key factors of the analytical framework used to analyze a security that are relevant regarding to the NPL scenario. Somehow, the RaOPL model gives a superficial review in the credit risk of the asset and in the payment structure/cash flow mechanics. In the other hand, the model focus a better analyzation in the legal and regulatory risks as so in the operational and administrative risks.

In a similar way, the areas considered relevant by the Moody's rating agency in order to evaluate the credit risk of global housing is similar to the zones approached by the RaOPL analysis.

Table 26 - Relation between Moody's factor and RaOPL processes

Moody's Factor	P1	P2
Financial Position	• Legal documents	• Legal due diligence • Fiscal due diligence • Cost Revenue Analysis
Market Position	• Estimation report of the asset • General identification data	• Analysis of the competitive context • Asset Evaluation • Calculation methodology • SWOT analysis
Property Management	• Summary description of the building • General identification data	• Asset's general information • Operation Area
Others considerations	• Legal Documents • Diagram and graphic tables	• Legal due diligence • Fiscal due diligence • Diagram and graphic tables

It is relevant to emphasize that in the Moody's project finance housing transactions it is focused heavily on an analysis of the project's market position which is a key driver of project revenues. The strongest driver of demand for projects is a requirement for tenants to live in the housing. Is relevant to point out that high demand pressure can have a negative impact both on project occupancy and rent levels, leading management to provide some concessions. In the RaOPL model, the analysis on the competitive context of the asset try to properly approach these criteria in evaluation.

It's clear that the main similarity is related to the areas of knowledges that both of them assume relevant to the analysis itself. However, the approach on dealing with this information is the start point of the divergence. In spite of that, both models use an alpha numerical to represent the final opinion of the risk evaluation of its subject.

- Differences with the RaOPL model

The first difference between those rating tools is related to the RaOPL definition. Most of rating agencies use a combination between a mathematical model driven ratings and analyst driven rating in order to arrive in a final rating. The RaOPL is an Indicator resulting from a procedural and documental model, therefore, it uses an “analyst driven” methodology to obtain a numerical value in the evaluation process.

The process on the final rating definition, therefore, is also divergent. Using the Housing Global Project as an example, each sub factor is evaluated on the agencies opinion and prescribed methodology and to it is assigned an alphanumerical value. Those values are weighted accordingly to its relevance and mapped back to an alpha numerical value characteristic to the project itself achieving a final score. In the RaOPL case, each defined process is evaluate through documents related to different areas of expertise. Consequently, each area of expertise will have a score evaluation. The final rating is defined by the relation of the two areas of expertise specific to the process.

Most of differences between the rating discussed so far and the RaOPL is due to the analysis object of each method and its use. The previous one is characterized by firms searching for them own risk evaluation – or of their specific debts. In a model develop for the NPL analysis, every evaluation process and criteria is managed by the bank management related to the purchase and sale of those assets. The development of a model that is inserted in the NPL market scenario and parallel to the auction process allows the definition of additional specifications. It goes from the Processes definition to the arrange of information to characterize each area of expertise. Those specification give some advantage and disadvantages to the RaOPL rating in comparison to the one discussed so far.

- Model Advantages

    - Rating based in relation

As said before, the definition of the final rating in the RaOPL model is based on the relation between the areas of expertise – Project and Market Value. These designation allows the rating to express more than just the benchmark between risk of the projects. It also

represents the balance level between the Market Value and the Project. Therefore, it may be used as an instrument to provide an improvement forecast to the qualitative level of such relation between the Market Value - Project.

- Risk analysis

The scorecard methodology used in the Global Housing Project is neither a rating calculator nor a comprehensive list of all factors affecting the rating. In this case, each sub factor has its own evaluation. In the RaOPL methodology, the calculation of the score of the documents is based on the Drivers definition in order to better understand what may affect the project itself. The goal with this is to achieve an analysis of all the projects characteristics, may they be technical, economical, financial and managerial, to understand how those characteristics may influence the success of the project. In addition to that, the driver allows the model to evaluate all the risks aspects of the project, since the WBS Documents examination.

The definition of such risks relates to the project is a advantage of the RaOPL model. For a well-defined use of this information, it aims on cataloging the risks, divided in general and specific, to each one of them there is a defined cause, an effect and the mitigation tool. The appropriate association and identification of each risk defined to a typology (demand, disponibility, construction, etc.) and an attribute (normative, administrative, design, processing, finance, etc.) offer to the final user of the model a toll to deal with a range to improvement. Whit this goal, the model also has the advantage of displaying an cause and the effect of the identified risk, thanks to that it is possible to attribute a numerical value to the risk - obtained by the probability of occurrence and the impact of its damage. Lastly, it is identified the mitigation tools and a value that shows the capability of apply such instrument.

- NPL market specification

As the advantage related to the risk analysis, the designation of a rating detailed to the NPL market allows the evaluation of criteria aimed to that problem. One example that is not related to the Moody's Factor exposed in Table 2is the evaluation on the schedule - as in the Process P1 as in the Process P2. This documents and subsequent score is concerning the

indication general indications of the time, in terms of the duration and dates, expected by the REOCO for the evaluation of the asset.

The main issue on this advantage is to the make an alternative to the current more used method to evaluate NPLs portfolios – through NPL securitization ratings. The RaOPL model aims on the evaluation in depth of the underlying asset related to the NPL, not focusing specifically on the impaired loan. Such topic will be the basis of discussion on a following section. The RaOPL aims on a profounder evaluation on the underlying asset related to the NPL to minimize the bid ask to the Market Value with an assessment on the relation of it and the state of fact of the asset.

A more practical and relevant question is concerning with the management of NPL portfolios. On dealing with NPL projects, one of the problem in its management is related to the high level of information and data. The RaOPL has as it stat point a Single Archive with the collection of the data related to NPL project. This factor in congruency with a precise compilation process constructed based on the documents available allow the user of the rating a more practical way of treatment these portfolio. In the same way, both process that characterizes the RaOPL are developed and have outcomes related to the auction procedure.

This the initial point to a deeper discussion on this scenario. Currently, when a Italian bank, characterized with a high level of NPLs, search to a tool in which allows to rate it's NPL issue the most common way it's through securitization rating. It has an impact in the analysis due the fact that the securitization process put in a "package" an number of NPL projects evaluating it impaired loan situation as much as its underlying value. As we could observe, the RaOPL aims on a profounder evaluation on the underlying asset related to the NPL to minimize the bid ask to the Market Value with an assessment on the relation of it and the state of fact of the asset.

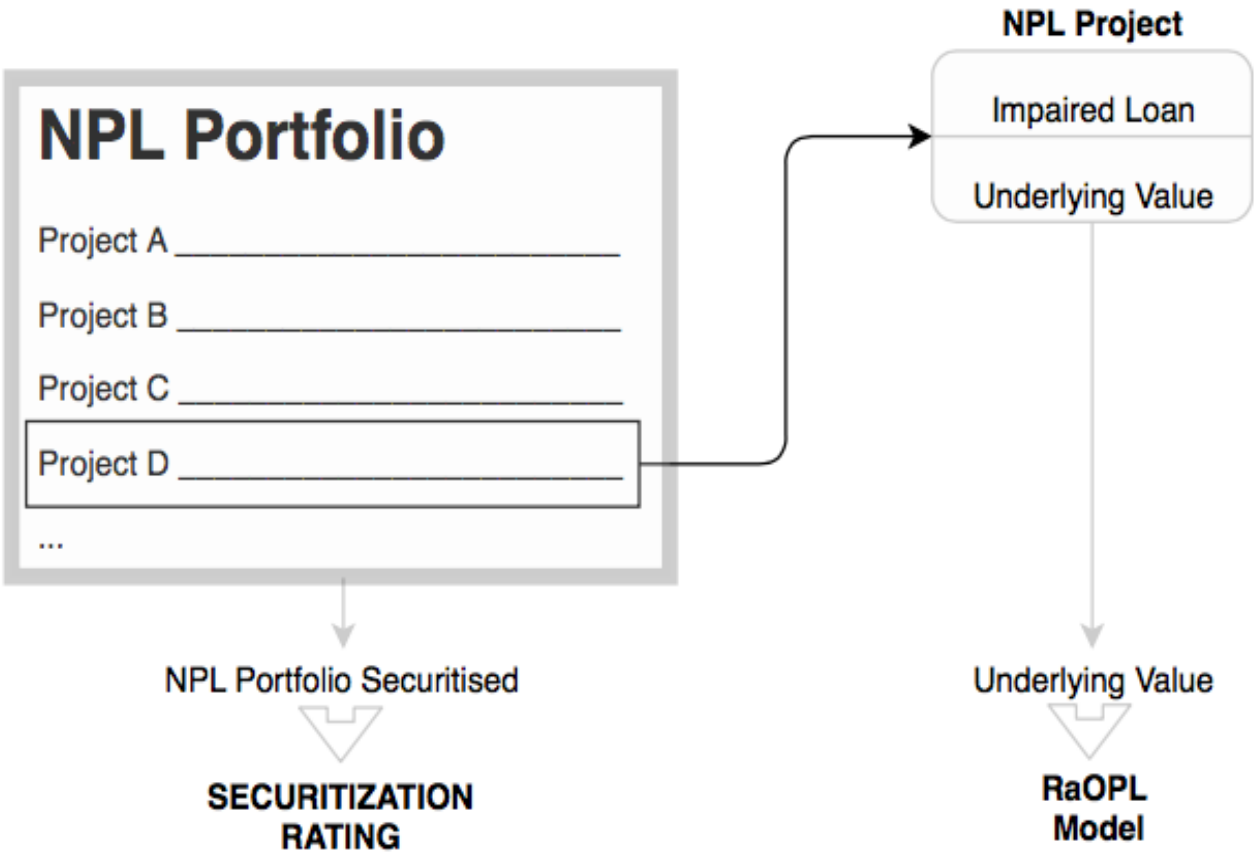


Figure 4 - NPL portfolio analysis

The diagram above represents those two rating analysis, it's clear that, due the level of specification of each analysis, one is not replaceable by the other. The point is to approach the NPL issue from a different perspective. The point within the RaOPL analysis is to maximize the evaluation on the capacity of valorization of the asset with a more detailed analysis of its condition regarding economic and project issues. Besides the risk analysis specific for that project. For such aim to be achieved it is performed by project.

The use of the securitization rating as the only way to evaluate an NPL reinforces the ECB concern with the banks incapacity on properly perform collateral valuation for the immovable property. Consequently, because the banks failed on updated real estate valuations in order to assess the quality of loan on their balance sheets and the adequacy of the collateral.

The advantages generates from the evaluation per project of the RaOPL model have a subsequent drawback: the high level of information to be process in the evaluation. This

information going under the RaOPL methodology takes an amount of effort that is a critical issue on reflecting about its application especially considering the level of NPL of the Italian banks.

A discuss on the feasibility of the application of the RaOPL model for those high NPL level banks as a new approach to deal with these issue is needed. The submission of every bank NPL under evaluation to the RaOPL is not practical. Each project on P1 process take on average one man in one day of work to be done. Considering that for each evaluation process between 500 and 600 NPL project are taken into account it seems unfeasible.

- Model disadvantages

  - Weighting of factors

In the *Global Housing Project* of the Moody's agency, to each factor and sub factor identified as relevant to the object analysis is assigned a relative weight. These definition is Project specific therefore, the data on the Table 1 is just for explanation purpose. In that case, Financial situation had a clear better influence on the credit risk evaluation of the asset.

On the RaOPL rating calculation each document score and consequent driver have an weight in the final rating definition based on the attributes already discussed. It may serve as a way of distortion of the final rating due the low classification in an aspect not that relevant in the evaluation of the area of expertise of a specific project. But mainly, the two areas are assumed to have the same influence in the final Rating score.

The necessity of performing a factorial analysis to a reasonable number of case studies would help to reduce and quantify the the interdependencies between observed variables can be used later to reduce the set of variables in a dataset.

  - Focus on the future spectrum

The final opinion on the credit risk of an asset in an agency evaluation is based mainly on evaluating how it have reacted to extreme economic condition and quantify the maximum loss. To this examination is added project specific criteria to identify the current situation and manly the future prospects of the asset. In The *Global Housing Project,* for example, the scorecard is based on historical financial statements while the final ratings incorporate expectations of future performance examined by the agency as relevant in the project interpretation. Variance between the scorecard-indicated outcome and actual ratings reflects the importance of forecasts of financial performance and the agency's analysis of those qualitative rating factors. For speculative grade rated entities, performance inconsistent with historical trends, more rapid rates of change due to higher risk profiles, for example.

In the RaOPL rating process, in some projects, the relation on the Market-Project may not be enough to evaluate a future performance of the asset without some additional analysis tool.

- Project Specific

The rate process in the housing project finance, for example, have its methodology adapted to each main type (Privatized Student Housing, Affordable Multifamily Housing, Subsidized Multifamily Housing, etc.). The differentiation by each type allow that some extra consideration to be applied and the definition of the rating process adequate to its purpose.

The standardization in the RaOPL methodology is aligned with the high information level in the NPL market but may not put all the assets in a fair benchmark comparison level. This review is applicable since the model is dealing with asset with different demographic characteristics and property managements. The best way to circumvent this issue is assuring a well performed qualitative evaluation of the assets in the rating process. The problem of high level of information and work needed to perform the RaOPL evaluation remains and will be put on analysis on its revision through study cases.

In the same way as the RaOPL model, the scorecard methodology aims in standards the main concerns factor in these evaluation. For exactly that reason, the outcome of its use is not the

final rating. The outcome passes to the influence of forecasts of financial performance and the agency's analysis of others qualitative factor considered relevant to such specific project.

8. Conclusion

The synthetic indicator formed by a procedural and documental model, which measures the risks related to NPLs – the RaOPL model – has as goal to determine a simple score able to evaluate the NPL that could be acquired in the sale auction. Through this analysis reported in this thesis regarding the model development and application, it was verified that such goal was achieved by a rating which defines a "risk" of valorization of the asset regarding the Market Value and the relation between the economic and project evaluation.

The main advantage outcomes of such approach derives from the specificities of the model regarding to the NPL auction sale procedure. The designation of a rating detailed to the NPL market allows the evaluation of criteria aimed to that problem. The main issue on this advantage is to the make an alternative to the current more used method to evaluate NPLs portfolios – through NPL securitization ratings. As already discussed, the RaOPL model aims on the evaluation in depth of the underlying asset related to the NPL, not focusing specifically on the impaired loan. Subsequently, be able to analyze and report the risks correlated to each specific asset.

A greater number of case studies may give some analysis instruments useful to the model evaluation. First of all, evaluate the real impact of each process in the Asset evaluation – taking into account that the second process give a more reliable risk analysis of the subject. And afterwards, perform a factorial analysis in order to verify if the assumptions of weight attribution for the Areas – and even the documents – are accurate.

All the pointed discussed highlights the importance of the subjectivity of the evaluation performed. Therefore, the practical application of such model requires an well-structured process as much as an user capable of evaluate the critical issues and its implication to the Asset evaluation. This makes the unfeasibility of its application due time and work consuming even more real and should require a deeper assessment.

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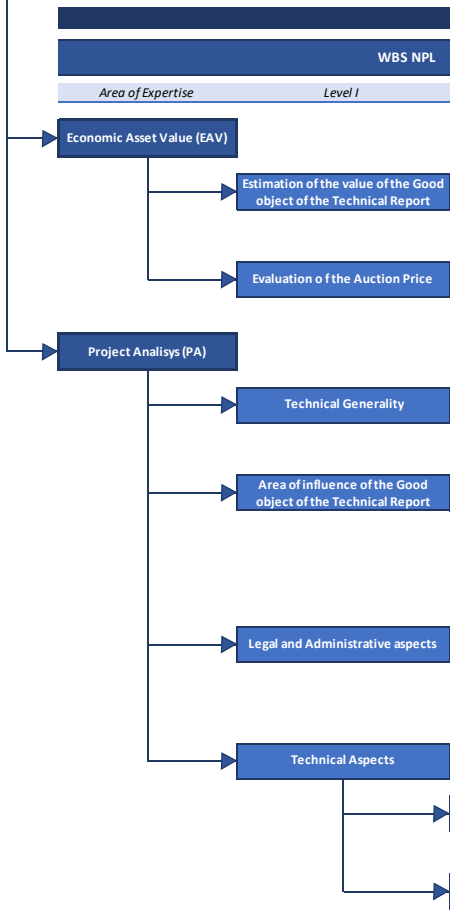
10. Attachment

Updated 05-04-2018

Process P1_Auction Notices and Techinical Report



NPL								
WBS NPL			**Document**			**Attributes**			**Layout**
Area of Expertise	*Level I*	*Level II*	*Code*	*Name*	*Description*	*Type*	*Obligatory*	*Version*	*Sheet*
Economic Asset Value (EAV)	Estimation of the value of the Good object of the Technical Report		**P1_A1_1.1_01**	**Determination of the Market Value of the Good object of the Technical Report**	It consists in calculating the most probable Market Value of the Good described in the Technical Official Report according to the provision of the Technician appointed by the Judge of the Bankruptcy Procedure.	A - C	Yes	Base	S01
	Evaluation o f the Auction Price		**P1_A1_1.1_02**	**Calculation of the "Adequate Price" of the Asset in the Phase P1**	It consists in identifying the most probable "Adequate Price" of the acquisition price of the Assets subject to insolvency proceedings in the phase ex-ante Auction Notices.	A - C	Yes	Base	S02
Project Analisys (PA)	Technical Generality		**P1_A2_1.1_03**	**Technical description of the Good and the Inspection Area**	These are data and information describing the technical aspects of the good based on the Technical Report ordered by the Judge of the Bankruptcy Procedure.	A - C	Yes	Base	S03
	Area of influence of the Good object of the Technical Report		**P1_A2_2.1_04**	**Documentation concerning the area of influence of the Good**	Collection of the information and data concerning the area of the good in relation to the territorial environmental and urban aspects (PRGC)	A - C	Yes	Base	S04
	Legal and Administrative aspects		**P1_A2_3.1_05**	**Legal Documents**	The legal documents consist: - The order of sale, in which contains the methods of the auction, in particular any eventual subdivision of the asset in one or more lots and all the information related to the Auction Notices; - the contracts with the credit institutes, specifying if it is about a leasing, land loan, etc.; - The mortgage registration notes which reports all the data concerning the registration (assurance and mortgage) and the transcript (foreclosures and seizures).	A - C	Yes	Base	S05
	Technical Aspects	Diagram and graphic tables	**P1_A2_4.1_06**	**Diagram and graphic tables**	Documents containing the graphic diagrams and general drawings deriving from the real estate appraisal (Auction Notes/Technical Office Consultant Report), that allows to identify the form, the planimetric distribution and that is considered useful for the	A - C	No	Base	S06
		Schedule	**P!_A2_4.2_07**	**Schedule**	Documents containing the general indications of the time, in tems of the duration and deadlines, exepected by the REOCO for the evaluation of the asset.	A	No	Base	S07

					Section IV - Data collection and Attachment informations							Section V	Section VI
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Code	*Name*	*Description*	*Code Doc*	*Description*	*Part num*	*Name*	*Description*	*Sheet*	*Data*	*Source*	*Notes*	*Qualitative and quantitative evaluation, risk list*	*Images, pictures and drawns*
P1_A1_1.1	**Estimation of the value of the Good object of the Technical Report**	The document contains, with a sufficient degree of informative detail, the basic elements that will have to contribute to the determination of the most probable Market Value of the Good object of the Technical Report. The calculation shown in theTechnical Official Report, takes into account the assessments of the expert appointed by the Judge of the E.I. o of the Bankruptcy Procedure, in relation to the State of Fact of the Assigned Property. The estimation methods applied prevalently by the Report are: the comparison method, the financial method and the cost method, and the ultimate value is to be understood as the "value of the final good" offered to the market in a usable form or in any case in the state of evaluation carried out by the Technical Report. The analysis must be supported by market data, deriving from databases and direct verification and analysis on the territory, as well as free considerations of the Technician in relation to the performance of the context of the reference market of the Good. The information and data provided must allow the qualitative assessment of the document for the assignment of the Rating score and the identification of the risks attributable to the status of the Good in Expertise, capable of conditioning the reliability of the basic elements used for the calculation of the Value of Market.	P2_A1_1.1_01	Determination of the Market Value of the Good object of the Technical Report	*1/2*	*Identification and description of the good*	It contains data and information necessary for the accurate identification of the good object of teh Technical Report in terms of territorial location, urban context, characteristics of the property/land and whatever else is considered by the Technician necessary and essential to describe in an exhaustive way its location, in order to qualify with sufficient security the valuation elements competing to determine the most probable Market Value.	Location	Region	Fonti	Commenti	Valutazione	
									Prov				
									City				
									ZIP				
									Adress				
									Reference				
									Note				
									Zone (center, suburbs, semiperiferia, agricultural, industrial-artisanal, redevelopment, new edification, tourist-receptive, maritime ports, ...) (historical center, residential high category, popular residential, with high, low, medium, density population, ...)				
									Distance (city center, commercial services, neighborhood shops, neighborhood, municipal services, hospitals and medical centers, highways, stations, railways, sea ports, car parks ...)				
									Public roads				
									Public transportation				
								Description of the good	immobile - edificio residenziale - mono-bi-pluri familiare, industriale, ricettivo-turistico, commerciale, artistico culturale, ect...				
									terreno - uso residenziale, agricolo, produttico-industriale, commerciale, ect				
									Stato d manutenzione				
									immobile - vetustà (anno di costruzione)				
									Terreno di pertinenza				
									terreni (per edificazione, PEC, agricoli, produttivi-PIP, incolti, a pascolo, ect...)				
									Riferimenti				
									Note				
					2/2	*Calculation of the market value of the asset*	It reports the Market Value of the Good object of the Technical Report under examination following the calculation methods provided by "Tecnoborsa", or alternatively according to the Technician's own evaluations, supported by technical documentation and / or from reference databases and / or interviews with real estate agencies operating in the area.	Determination of the Market Value	Intestazione (luogo, ubicazione, indirizzo, ect)	Fonti	Commenti		
									tipologia del Bene oggetto di CTU/Perizia				
									consistenza (SLP-SUP.COM)				
									metodo di stima adottato per ipotesi e lotti Asset				
									Valore di mercato calcolato				
									Riferimenti				
									Note				

					Section IV - Data collection and Attachment informations								Section V	Section VI
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Code	*Name*	*Description*	*Code doc*	*Description*	*Part num*	*Name*	*Description*	*Sheet*	*Data*	*Source*	*Notes*	*Qualitative and quantitative evaluation, risk list*	*Images, pictures and drawns*
P1_A1_3.1	**Evaluation of the Auction Price**	The "value of ?" of the acquisition price of the Asset at the time of the Auction, in Phase P1, is based on the preliminary calculation of the Market Value calculated in the Technical Report according to the assumptions made explicit by the Technician. The difference between the MV - Market Value and the Auction Value set by the Judge is the basis for determining the "value of Adequate Price" according to free assessments on the real opportunity to acquire the asset. All the above must allow the qualitative assessment of the document for the assignment of the Rating score and the identification of the "financial risks" deriving from the auction reduction price threshold, reached as a result of the different sales auctions that were deserted, in addition to the risks identified in Area A2. the "Value of Adequate Price" is to be understood as the "minimum price" of auction available on the last valid date, which is within the reference threshold value, for which the possible acquisition of Asset is relevant, also Area PA - Project Analisy is taken in consideration for the risk assessments. The reference threshold value is the % decrease of the Auction Price with respect to the VM - Market Value at the value deemed of interest by the Purchaser.	P1_A1_1.1_02	Calculation of the "Adequate Price" of the Asset in the Phase P1	*1/1*	*Comparison MV_Technical Report x Auction Price*	It reports the trend in Auction prices and the difference with the Market Value calculated in CTU. The price reductions deriving from each single auction and the percentage between the market value and the last Auction price, must allow to make the assessments about the "Adeuqate Price" of the last acquisition price based on the threshold value of reference. The calculation of the "normal value" will also be shown for the sole purpose of having a further and significant comparison parameter with the auction price. This will also allow to qualify the document for the purpose of the rating and to identify the financial risks deriving from the reduction threshold of the auction price.	Determination of the "value of Adequate Price"	Auction Lot	Source	Comments	Evaluation	
									Comparison between the MV on Technical Report and Auction Prices				
									Auction progression and % reduction				
									Reference				
									Note				
								Determination of the "normal value"	Calculation to the "normal value"				
									Reference				
									Note				

					Sezione IV - Raccolta dati e informazioni documenti							Sezione V	Sezione VI
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cod.rif	*Name*	*Description*	*Code doc*	*Description*	*Part num*	*Name*	*Description*	*Sheet*	*Data*	*Source*	*Notes*	*Qualitative and quantitative evaluation, risk list*	*Images, pictures and drawns*
P1_A2_2.1	**Technical Generality**	This document collects all data and information of a "technical" nature, which theTechnical Report has prepared with its own signed document and by means of which it describes the state of affairs and the degree of maintenance of the property and of the places subject to expertise. Specifically, the Technical Report, in addition to answering the queries requested by the Judge of the E.I. of the Bankruptcy, must report the data and information such as, the general classification, the cadastral classification, the maintenance status, the consistency in terms of size (surfaces and volumes), the state of the instalations and anything else will be considered useful for the purpose to obtain a complete knowledge of the technical aspects of the asset in question, at the date of the inspection. All of the foregoing must enable a qualitative evaluation of the CTU / Appraisal to be carried out in order to calculate the Rating and identify the Risks.	P2_A2_2.1_03	Technical description of the Good and the Inspection Area	*1/3*	*General Classification (existing description and framework of the region)*	It consists of the "technical description" of the property and of the places object of expertise, drawn up by the Expert, able to formulate a cognitive picture of the State of Fact, among which, the location, the intended use, the sizing, the state of maintenance , ect.	LOCATION	Region	Source	Comments	Evaluation	
									Province				
									City				
									Postal Code				
									Address				
									Reference				
									Note				
								EXISTING (STATUS OF FACT)	Intended use				
									Type of Good				
									General data - property and land				
									Property and land sizing				
									Referene				
									Note				
					2/3	*Cadastral Classification*	The cadastral data, buildings and land are reported, recorded and ascertained following the availability of the relevant land registry documents issued by the competent Public Offices.	BUILDING REGISTER	Cadatral data	Source	Comments		
								LAND REGISTER					
					3/3	*Evaluation of the Asset instalations*	It consists in the evaluation of the state of the external plants (connection to the networks, presence and quality of the public network, ect) and internal (hidraulic, electrical, heating, ect) both subdivided into main and secondary, with possible indication of the works of maintenance and completion to be implemented for the issue of the Energy Performance Certificate (APE).	MAIN INSTALATIONS	Electrical - existence, quality, interventions to be carried out	Source	Comments		
									Water-sanitary - existence, quality, interventions to be carried out				
									Sewerafe - existence, quality, interventions to be carried out				
									Thermal - existence, quality, interventions to be carried out				
									Reference				
									Note				
								SECUNDARY INSTALATIONS	Mechanical - existence, quality, interventions to be carried out				
									Telecomunication - existence, quality, interventions to be carried out				
									Automation - existence, quality, interventions to be carried out				
									Security - existence, quality, interventions to be carried out				
									Fire fighting - existence, quality, interventions to be carried out				
									Photovoltaic - existence, quality, interventions to be carried out				
									Reference				
									Note				

					Section IV - Data collection and Attachment informations								Section V	Section VI
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Code	*Name*	*Description*	*Code doc*	*Description*	*Part num*	*Name*	*Description*	*Sheet*	*Data*	*Source*	*Notes*		*Qualitative and quantitative evaluation, risk list*	*Images, pictures and drawns*
P1_A2_2.1	**Area of influence of the Good object of the Technical Report**	These are the data and information reported by the Technician appointed by the Judge of the Bankruptcy Procedure, concerning the Area on which the good object of Technical Report. These data must make it possible to know the characteristics of the territory in relation to the territorial, environmental and urban aspects (PRGC). The aim is to provide an exhaustive and detailed informational framework, compatible with the possibility of access and availability of data by the Technician, in order to correctly identify the area in terms of knowledge of the surface soil and first stratigraphy , in particular in relation to possible reclamation interventions, assessment of the qualitative characteristics of the surrounding with a range of influence deemed to be of interest and consistency (geometric data) and reference to the PRGC. The information and data provided must also allow the qualitative assessment of the document for the assignment of the Rating score and the identification of the Risks attributable to the characteristics of the Area affected by the Bene.	P1_A2_2.1_04	Documentation concerning the area of influence of the Good	*1/2*	*Territorial and environmental aspects*	It contains data and information necessary for the identification of the area in question for geographic-territorial classification, morphological state and consistency.	General information on the state of the terrain	General identification	Source	Comments	Evaluation	
									Morphology					
									Quality of the terrain surface					
									Characteristic of the terrain					
									Presence of aquifers					
									Reclamation					
									Land surface					
									Altitude, latitude, longitude, height difference (max, min)					
									Reference					
									Note					
								Verifications	Environmental					
									Earthquake					
									Industrial					
									Firefighting					
									Weather-water					
									Thermonuclear					
									Volcanic					
									Tsunamis					
									Reclamation actions - descriptions and motivations					
									Reference					
									Note					
					2/2	*Reference PRGC*	It contains specific references to the PRGC in relation to which is poosible to know concerning the urban planning regulations	Reference urban instrument	Reference data	Source	Comments			
									Type of interventions foreseen in the PRGC					
									Data and coefficients of the PRGC					
									Reference					
									Note					

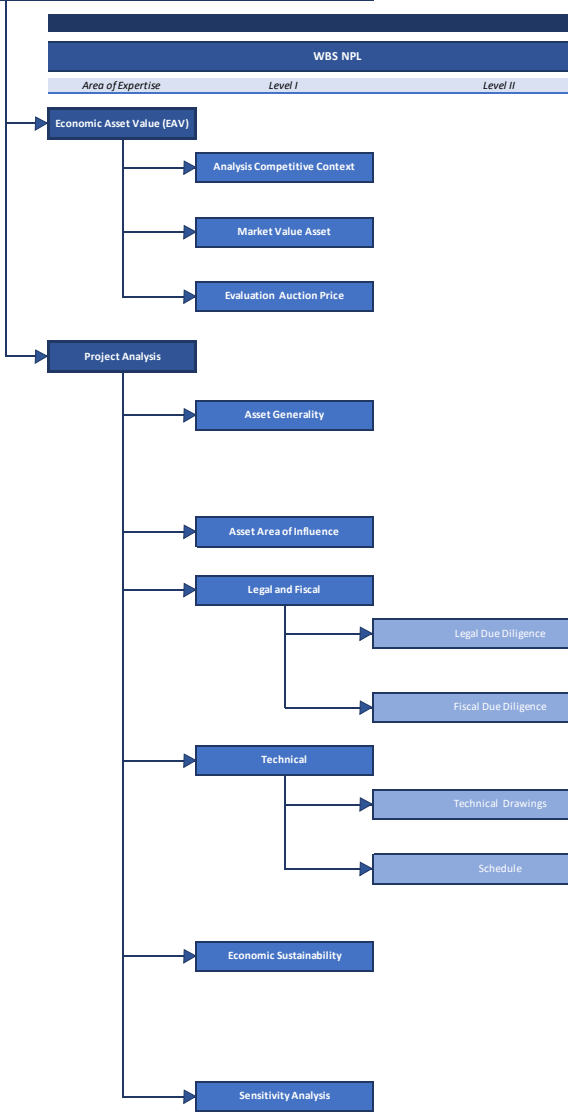
					Section IV - Data collection and Attachment informations							Section V	Section VI
WBS			Document		Part							Rating	
Code	Name	Description	Code doc	Description	Part num	Name	Description	Sheet	Data	Source	Notes	Qualitative and quantitative evaluation, risk list	Images, pictures and drawns
P1_A2_3.1	Legal and Administrative aspects	These are the data and information that can be found in the analysis of the Technical Reports and the Auction Notice, in relation to which it is intended to ascertain the existence of judicial constraints which may be grounds for impediment in the case of acquisition of the Good. The active and passive legal situation regarding the Asset is examined as an act of provenance, land registry and urban planning compliance, examination of prejudicial transcripts such as voluntary and judicial mortgages, contracts and anything else that can be found in Public, Certified and Public Offices access available. In particular, the Auction Announcement collects the data and information regarding the "Auction of Sale" in an ordered form, while the Technical Report checks the status of the "Ownership", the presence of "alleys and charges of the purchaser "updated at the date of the inspection, on the" urban and municipal compliance "and anything else that can make it possible to identify the" criticalities "of a technical / legal nature and the degree of complexity that causes the risk. All of the foregoing must allow us to carry out a qualitative evaluation of the document for the rating, as well as the identification of the risks.	P1_A2_3.1_05	Legal Documents	1/5	Sales Auction Information	The data and information necessary for participation in the Auction is reported.	General	Procedure number	Source	Comments	Evaluation	
									Procedure type				
									Tribunal				
									Auction date				
									Execution				
									Creditor				
									Judge executing				
									Judicial custodian				
									Dales representative				
									Technical Consultant Office				
									Reference				
									Note				
								Auction Procedure	Auction location				
									Auction date				
									Auction time				
									Place of offer presentation				
									Date of offer presentation				
									Base price				
									Minimum raise				
									Minimum offer				
									Deposit				
									Number of lots				
									Reference				
									Note				
					2/5	Ownership	It is intended to ascertain the "Ownership" of the Auction Asset by reporting the data that certify the origin and their contractual bond.	Verification of the provenance of the good	Full ownership of the executor				
									Owner				
									Reference number - Date and description				
									Reference				
									Note				
					3/5	*Urban planning and cadastral compliance*	It is related to the examination on "Urban planning and cadastral compliance" the assessment of which is necessary to verify the regularity of the registration of the Asset in the Public registers, as well as the existence of any abuses and discrepancies subject to amnesty.	Administrative acts	Act number	Source	Comments		
									Date of issue				
									Act typee				
									Description				
									Certificate of practicability				
									Reference				
									Note				
								Abuses and discrepancies	Progressive number				
									Type				
									Description				
									Remediable				
									Remediation cost				
									Reference				
									Note				
					4/5	Constraints and charges bonds by the purchaser	They are the collection of "constraints and charges bond by the buyer", subdivided by administrative and contractual restrictions, to which the Bene is obliged to comply.	Administrative constraints	Municipal constraints (Presence Expenses, Provisional description)				
									Urban constraints (Presence Expenses, Provisional description)				
									Regulatory constratints (Presence Expenses, Provisional description)				
									Natural constraints (Presence Expenses, Provisional description)				
									Reference				
									Note				
								Contractual constraints	Preempetion constraints (Presence Expenses, Provisional description)				
									Bond constraints (Presence Expenses, Provisional description)				
									Use constraints (Presence Expenses, Provisional description)				
									Condominium (Presence Expenses, Provisional description)				
									Reference				
									Note				
					5/5	Mortgages and transcriptions	They are the collection of mortgages (registrations) and foreclosures and seizures (Transcripts) in force in relation to the Asset.	Mortgage	Type of mortgage				
									Derived from				
									In favor				
									Cons				
									Capital				
									Interest amount				
									Total				
									Reference				
									Note				
								Transcription	Description				
									In favor				
									Coms				
									Place transcription				
									Date transcription				
									Register				
									Amount				
									Reference				
									Note				

					Sezione IV - Raccolta dati e informazioni documenti							Sezione V	Sezione VI
WBS			Document		Part							Rating	
cod.rif	*Name*	*Description*	*Code doc*	*Description*	*Part num*	*Name*	*Description*	*Sheet*	*Data*	*Source*	*Notes*	*Qualitative and quantitative evaluation, risk list*	*Images, pictures and drawns*
P1_A2_4.1	**Diagram and graphic tables**	All the technical documents available related to the graphic representation of the asset, among which the cadastral maps, graphical and architectural diagrams in general, which show the geometric measures necessary for a more precise identification in terms of planimetric and volumetric sizing and in general the "forms" of the asset. All of the foregoing must allow us to carry out a qualitative evaluation of the document for the rating, as well as the identification of the risks.	P1_A2_4.1_06	Diagram and graphic tables	*1/3*	*Cadastral plans*	All the cadastral documents are available, such as cadastral research, building plans, mortgage records, which allow the identification of the cadastral data of the Property.	Land register	Prog number Type Description Reference register Reference Note	Source	Comments	Evaluation	
								Building register	Prog number Type Description Reference register Reference Note				
					2/3	*Urban and municipal*	These are the "graphic drawings" issued by the Municipal Public Offices of the PRGC and Municipal Concession Practices, which certify the census of the asset in question and allow the verification of its public technical-design compliance.	Extracts from the PRGC	Prog number Type Description Reference register Reference Note	Source	Comments		
								Municipal plans (permits and concessions)	Prog number Type Description Reference register Reference Note				
					3/3	*Architectural and design plans*	They are all architectural and design plans that allow identifying the geometric measurements necessary for a more precise identification in terms of territorial location and planimetric and volumetric sizing.	Architectural and design plans	Prog number Type Description Reference register Reference Note	Source	Comments		

					Section IV - Data collection and Attachment informations								Section V	Section VI
WBS			**Document**		**Part**								**Rating**	
Code	*Name*	*Description*	*Code doc*	*Description*	*Part num*	*Name*	*Description*	*Sheet*	*Data*	*Source*	*Notes*		*Qualitative and quantitative evaluation, risk list*	*Images, pictures and drawns*
P1_A1_3.1	**Schedule**	Document containing the indication of maximum times, in terms of duration and date, provided by REOCO for the evaluation of the asset.	P!_A2_4.2_07	Schedule	*1/1*	*Elaboration time of the offer*	Partial and total durations in the "day" time unit of the phases for the evaluation of the Good by RE.O.CO is reported.	Elaboration time of the offer	Collection of documentation P1 (cost, incidence, start and end date, duration)	Source	Comments		Evaluation	
									Documentation examination P1 (cost, incidence, start and end date, duration)					
									Detailed insights P1 (cost, incidence, start and end date, duration)					
									Duartion P1					
									Site inspection P2 (cost, incidence, start and end date, duration)					
									Delivery DD P2 (cost, incidence, start and end date, duration)					
									Examation od the DD documentation P2 (cost, incidence, start and end date, duration)					
									Duartion P2					
									Duration P1 +P2					
									Offeer submission deadline					
									Days avalable					
									Reference					
									Note					

Updated 05-04-2018

Process P2_Preparation to the Auction



NPL								
WBS NPL			**Document**			**Attributes**			**Layout**
Area of Expertise	*Level I*	*Level II*	*Code*	*Name*	*Description*	*Type*	*Obligatory*	*Version*	*Sheet*
Economic Asset Value (EAV)	Analysis Competitive Context		P2_A1_1.1_08	**Analysis of the competitive context**	Evaluation of the socio-economic context, demographic trends, real estate dynamism and current market prices.	A - B - C	Yes	Base	S08
	Market Value Asset		P2_A1_2.1_09	**Calculation of the reference Market Value**	It consist in the collection and descripition of the basic elements necessary for determingthe calculation of the most probablem Market Value of the Asset in question.	A - B - C	Yes	Updated	S09
	Evaluation Auction Price		P2_A1_3.1_10	**Calculation of the "Adequate Price" of the Asset in Phase P2**	It consists in identifying the most probable "Adequate Price" of the acquisition price of the Assets subject to insolvency proceedings (E.I Esecuziuone Immobilare or Bankruptcy Procedure) in the ex-ante Auction Call phase.	A - B - C	Yes	Updated	S10
Project Analysis	Asset Generality		P2_A2_1.1_11	**Description of the Asset, indication of the objectives and purpose of development**	These are the data and information deemed necessary to formulate a general but exhaustive description of the state of consistency of the Assets (state of fact) and of its "potentialities", in order to define an assessment framework as complete and real as possible.	A - B - C	Yes	Updated	S10
	Asset Area of Influence		P2_A2_2.1_12	**Documentation concerning the Area of influence of the Asset**	The information and data concerning the Area of influence of the NPL on the territorial, environmental, urban planning (PRGC) and development aspects are collected.	A - B - C	Yes	Updated	S12
	Legal and Fiscal	Legal Due Diligence	P2_A2_3.1_13	**Legal Due Diligence**	Verification of documentation as proof of origin, cadastral survey, examination of prejudicial transcripts such as voluntary and judicial mortgages, contracts, etc.	A - B - C	Sì	Aggiornato	S13
		Fiscal Due Diligence	P2_A2_3.2_14	**Fiscal Due Diligence**	Documentation through which it is possible to carry out a review and verification of the tax obligations of the Asset, in order to highlight the existence of shares by public collection companies in relation to which there are pending economic charges or legal disputes.	A - B - C	Sì	Base	S14
	Technical	Technical Drawings	P2_A2_4.1_15	**Diagrams and graphic tables**	Documents containing the graphical diagrams and general drawings, deriving from the Technical Due Diligence, which allow to identify the forms, the planimetric distribution and all that is considered useful for the knowledge of Asset.	A - B - C	No	Aggiornato	S15
		Schedule	P2_A2_4.2_16	**Schedule**	Document containing the indication of maximum times, in terms of duration and deadlines, provided by RE.O.CO. for the enhancement of the planned intervention.	A	No	Base	S16
	Economic Sustainability		P2_A2_5.1_17	**Revenue Costs Analysis**	It consists in the evaluation of the cumulative effects of the costs and income of the Asset under consideration, in the period of time calculated from the acquisition to the actual production of revenues from sales and / or management. The TIR and VAN parameters obtained must contribute to the qualitative assessment of the ACR document.	A	Sì	Base	S17
	Sensitivity Analysis		P2_A2_6.1_18	**SWOT Analysis**	The SWOT analysis is a decision support tool and responds to a need to rationalize decision-making processes to evaluate alternative development scenarios while simultaneously taking into account internal and external variables. Specifically, this analysis evaluates the Strenghts and Weaknesses of a system to highlight Opportunities and Threats. The first two, being variables that are an integral part of the system on which it is possible to intervene, are considered endogenous factors. On the contrary, opportunities and threats are considered exogenous factors because they are external to the system but still able to condition it.	A	No	Base	S18

					Section IV - Data collection and Attachment informations							Section V	Section VI
WBS			Document		Part							Rating	
Code	*Name*	*Description*	*Code doc*	*Description*	*Part num*	*Name*	*Description*	*Sheet*	*Data*	*Source*	*Notes*	*Qualitative and quantitative evaluation, risk list*	*Images, pictures and drawns*
P2_A1_1.1	**Analysis Competitive Context**	It consists in the collection of data and information aimed at providing a comprehensive picture of the quality of the territory in question, in terms of geographical classification, population, number and social categories, in addition to the dynamism of real estate transactions and prices. The knowledge of these data and information must allow the qualitative assessment of the territory in question in order to ascertain the level of possible investment interest.The analysis area must be of such a size as to allow the collection of necessary and sufficient data and information. for the purpose of this document In general, the area identified by the Province to which Asse belongs is considered. The analysis must be supported by market data, deriving from databases and direct verification and analysis on the territory. The information and data provided must also allow the qualitative assessment of the document for the assignment of the Rating score and the identification of the risks attributable to the nature and evolution of the area of the examined area, such as to condition the reliability of the elements basis for the subsequent calculation of the Market Value.	P2_A1_1.1_07	Analysis of the competitive context	*1/2*	*Geographical, demographic and urban context*	It contains data and information necessary for the characterization of the territory in question, such as the geographic-territorial classificaton. It consistency in terms of population, numbers and social categories. Existing productive astes and prevaling construction typologies are reported also.	Geographic context	Region	Source	Comments	Evaluation	
									Prov				
									City				
									Postal Code				
									Longitude				
									Latitudine				
									Morphological area				
									Common rating				
									Reference				
									Note				
								Demographic context	Population				
									Number of families				
									Age				
									Average income for families				
									Reference				
									Note				
								General urban context	Urban areas included in the PRGC				
									Communication networks (accessibility)				
									Prevalent intended use				
									Prevailing activity				
									Business volume of the reference market (level)				
									Development level				
									Community services				
									Charachteristics of the area				
									Reference				
									Note				
					2/2	*Real estate dynamics and market prices*	Contains data and information concerning the supply/demand ratio of the real esate market, specific for the man uses. The purpose is to verify the level of dynamism of the ral esate market.	Residential	Type of prevailing offer	Source	Comments		
									Maintenance status				
									Level of demand				
									Offer level				
									Properties for sale				
									Rental properties				
									Average demand area				
									Average area of offers				
									Market prices (max-min values)(sales-location)				
									Number of transactions (average/year)				
									Average sales times/rentals				
									Market availability (occupancy)				
									Reference				
									Note				
								Commercial (reatil)	Type of existing activities				
									Evaluation of the status of existing asstes				
									Prevailing question				
									Prevailing offer				
									Average demand area				
									Average area of offers				
									Market prices (max-min values)(sales-location)				
									number of transactions (average/year)				
									Average sales times/rentals				
									Business size (average turnover)				
									Reference				
									Note				
								Tourist accommodation (hotel - restaurants)	Type of offer				
									Qualitative level of offers				
									Level of demand				
									Average number of rooms per structure				
									Average number of seats per struture				
									Average occupancy referred to the opening period				
									Average night stay				
									Prices				
									Number of transactions (average/year) (sale/rental)				
									Average absortion time				
									Functioning days (days/year)				
									Business size (average turnover)				
									Functioning days (days/year)				
									Reference				
									Note				
								Parking lots	Type (covered, uncovered) (private, public)				
									Demand and supply level				
									Average number od spots and floors				
									Price (€/hour)(max and min)				
									Occupancy				
									Reference				
									Note				

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P2_A1_2.1	**Market Value Asset**	The document contains, with a sufficient degree of informative detail, the basic elements that will have to contribute to the determination of the most probable Market Value of the Asset in question, evaluating the actual status of the Asset and the trend of the referenced Market. The latter is to be understood as a territorial area adjacent to Asset, designed to identify a possible economic value of reference obtained by comparison of similar assets; the area in question is therefore variable in terms of size. In any case, the area considered most appropriate in terms of size and geographical, urban and economic characteristics. The calculation of the market value is obtained by Tecnoborsa through the application of one of the three estimation methods: the comparison method, the financial method and the cost method, it must therefore be understood as the "value of the finished good" offered to the market in the form usable or in any case in the evaluation status carried out. The analysis must be supported by market data, deriving from databases and direct verification and analysis on the territory. The information and data provided must also allow the qualitative assessment of the document for the assignment of the Rating score and the identification of the risks attributable to the nature and time trend of the area of the Asset in question, capable of affecting the reliability of the basic elements for the subsequent calculation of the Market Value.	P2_A1_2.1_09	Calculation of the reference Market Value	*1/2*	*Identification of Asset area*	It contains data and information necessary for the accurate identification of the Asset in terms of territorial location, urban context and anything else that is considered necessary and indispensable to describe in an exhaustive way the area of belonging of the Asset in question, in order to qualify with sufficient safety of the valuation elements competing for the subsequent determination of the most probable Market Value. The reference area is that considered adequate and compatible with the characteristics of the asset in question.	Location	Region	Source	Comments	Evaluation	
									Prov				
									City				
									Postal Code				
									Adress				
									Reference				
									Note				
								Zonal framework	Zone (center, suburbs, agrucultural, industrial, tourist receptive...) (historical center, residential high category, popular residential, density population level...)				
									Distances (city center, commercial services, neighborhood shops, municipal sevices, hospitals, station etc...)				
									Public roads				
									Public transport (types - metro, bus, etc...)				
									Land of relevance				
									Land (for building, agricultural, prosuctive, etc...)				
									Building (Residential, agricultural, industrial, commercial etc..)				
									Land (Residential, agricultural, industrial, commercial etc..)				
									Maintenance status				
									Building - year of construction				
									Reference				
									Note				
								Compostition od the urban area of the asset	Number of families				
									Social-professional category				
									Average income/family				
									Reference				
									Note				
					2/2	*Calculation of the Asset Market value*	It shows the Market Value of the Asset under examination following the calculation obtained by applying one of the three calculation methods provided by "Tecnoborsa". The prices shown are divided into "existing" (actual state) and in the comparable area. The former must be based on available documentation, the latter must be evaluated according to estimates taken from reference databases and / or interviews with real estate agencies operating in the area. The calculation of the Asset Market Value must take into account the assumed scenarios and the estimation methods applied. it also allows to collect assessments on the price trends of the area belonging to Asset that are believed to generate critical issues over time.	Economic valeu present (state)	Current intended use	Source	Comments		
									Prevelant intended use				
									Value of sale/Manageneny before insolvency procedure				
									Expected income				
									Duration of market offer				
									Reference				
									Note				
								Reference Markert Estimation	Current intended use				
									Prevelant intended use				
									Value sale/rental value for intended use				
									Revenue				
									Average sales/rental time				
									Reference database				
									Estate agents				
									Recommended use for reconversion if (applicable)				
									Level od demand for property/similar land				
									Reference				
									Note				
								Hypothesized scenario	Estimation date				
									Estimation editor				
									Date inspection				
									Assessment hypoteses				
									Calculation method adopted				
									Detailed motivations				
									Fraction				
									Reference				
									Note				
								Determination of Market Value	Header (location, adress, etc)				
									Asset tyoe				
									Consistency(SLP-SUP.COM)				
									Calculation method adopted and assumptions				
									Calculated Market Value				
									Reference				
									Note				

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P2_A1_3.1	**Evaluation Auction Price**	The "value of Adeqaute Price" of the Assets in the auction is based on the preliminary calculation of the Market Value obtained using the data and information made available in the previous documents (S07 and S08). For the sake of reliability of the calculation, the possible scenarios must be explained in relation to the economic hypotheses expressed by the editors of the Commercial DDs and the value obtained must be compared with the Technical report in order to verify the relationship between the Technical and the offer value at the auction. The results of the calculation and comparison will give rise to assessments on the "value of Adequate Price" and its applicability to market conditions. It must allow the qualitative assessment of the document for the assignment of the Rating score and the identification of the financial risks deriving from the auction price reduction threshold, achieved as a result of the different sales auctions that were deserted, beyond to the recalls to the risks identified in Area A2. The "Value of Adequate Price" is defined as the "minimum price" of auction available on the last valid date, which is within the reference threshold value, for which the possible acquisition of Asset is considered of interest, also in consideration of the risk assessment of Area PA Project Analisys. The reference threshold value is the % decrease of the Auction Price with respect to the VM Market Value placed, at the value deemed of interest by the Purchaser.	P2_A1_3.1_10	Calculation of the "Adequate Price" of the Asset in Phase P2	*1/1*	*Comparison technical Report x DD*	It reports the trend in Auction prices and the difference with the Market Value calculated in Commercial DD. The price reduction deriving from each individual Auction and the percentage between the Market Value and the last Auction price, must allow to make the assessments about the "?" of the last acquisition price, based on the threshold value. The calculation of the "normal value" will also be shown for the sole purpose of having a further and significant comparison parameter with the auction price. The above will also allow to qualify the document for the purpose of the rating and to identify the financial risks deriving from the reduction threshold of the auction price.	Hypothesized scenarios	Summary description	Source	Comments	Evaluation	
									Reference					
									Note					
								Determination of the "value of Adequate Price"	Auction Lot					
									Comparison bewteen Technical Report and DD					
									Auction progession and % reduction					
									Reference					
									Note					
								Determination of the "normal value"	Calculation table for the normal value					
									Reference					
									Note					

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P2_A2_2.1	**Asset Generality**	The data and information that can be obtained from technical inspection activities and the examination of the technical documentation available, specific to DD Tecnica, in relation to the general classification, cadastral classification, Asset maintenance status, consistency in terms of dimension (surfaces and volumes), state of the plants and anything else deemed useful in order to obtain an exhaustive knowledge of the technical aspects. The hypotheses for the development of Assets are also shown, reporting the objectives that are to be achieved, the actions to be carried out and the expected results, in order to increase the elements of evaluation, also in consideration of what is envisaged in the Asset (doc P2_A2_2.1_11). The comparison with phase P1 (Technical Report) is reported in order to ascertain the degree of coincidence and/or alteration/modification in relation to the time elapsed from theTechnical to the Technical DD. All of the foregoing must allow us to carry out a qualitative evaluation of the document for the rating, as well as the identification of the risks.	P2_A2_2.1_11	Description of the Asset, indication of the objectives and purpose of development	*1/4*	*General classification (existing description and framework of the region)*	It consists of the general classification of the Asset obtained by the technical description, generally reported in the Technical DS - which contains data and information deemed of interest to define the main technical characteristics (sizing, maintenance status, ect) in order to formulate a cognitive framework of the state of fact of the asset in question. An integration with the Commercial DD is envisaged for those information deemed of common interest, particularly in terms of location and urban context. The comparison with what is reported in the Technical Report (Phase P1) is also carried out in order to ascertain the degree of coincidence and/or alteration/ modification in relation to the time	LOCATION	Region	Source	Comments	Evaluation	
									Province				
									City				
									Postal Code				
									Address				
									Reference				
									Note				
								EXISTING (ACTUAL SATET)	Asset Type				
									General data and maintenance status				
									Intended use				
									Lots (from Technical Report)				
									Sizing (surface and volumes)				
									Reference				
									Note				
					2/4	*Cadastrak Classification*	The cadastral, urban and land data, recorded and ascertained following the availability of the relevant land registry documents issued by the competent Public Offices are reported.	BUILDING REGISTER	Land registry ata from P! updated	Source	Comments		
								LAND REGISTER					
					3/4	*Evaluation of the Asset installations*	It consists in the evaluation of the state of the external instalations (connection to the networks, presence and quality of the public network, ect) and internal (hidraulic, electrical, heating, ect) both subdivided into main and secondary, with possible indication of the works of maintenance and completion to be implemented for the issue of the Energy Performance Certificate (APE).	MAIN INSTALATIONS	Electrical - existence, quality, interventions to be carried	Source	Comments		
									Water-sanitary - existence, quality, interventions to be carried out				
									Sewerafe - existence, quality, interventions to be carried out				
									Thermal - existence, quality, interventions to be carried out				
									Reference				
									Note				
								SECONDARY INSTALATIONS	Mechanical - existence, quality, interventions to be carried				
									Telecomunication - existence, quality, interventions to be carried out				
									Automation - existence, quality, interventions to be carried				
									Security - existence, quality, interventions to be carried out				
									Fire ngiting - existence, quality, interventions to be carried				
									Photovoltaic - existence, quality, interventions to be carried				
									Reference				
									Note				
					4/4	*Development hypotheses*	CIt consists of possible development hypotheses, already identified in Commercial DD and compatible with the Assets of Area of influence of the Assets (Doc P2_A2_2.1_12), analyzed from a technical point of view, reporting the technical problems, the maximum costs and the technical specifications to be adopted in terms of feasibility.	SCENARIOS HYPOTHESIZED IN COMMERCIAL DD	New intended use	Source	Comments		
									Expected results				
									General objectives and framework				
									Compatibility with Area forecasting				
									Reference				
									Note				
								TECHNICAL-PROJECT INTERVENTIONS	Type of intervention to be performed				
									Time and costs (s16)				
									Description of the new interventions				
									Reference				
									Note				

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P2_A2_2.1	**Asset Area of Influence**	It intends to study the area on which the NPL Asset is situated, in order to know the characteristics of the territory in terms of territorial, environmental, urban planning (PRGC) and development aspects. The aim is to provide an exhaustive and detailed information framework, compatible with the possibility of access and availability of data, in order to correctly identify the area in terms of knowledge of the surface soil and first stratigraphy. In particular in order for possible remediation, assessment of the qualitative characteristics of the surrounding morphology with a range of influence deemed of interest and consistency reference to the PRGC. Moreover, in the case of reconversion of intended use and/or architectural/structural, it is intended to ascertain what impact of the Asset generates in the territory, understood as "qualitative and quantitative alteration, direct and indirect, short and long term, permanent and temporary, single and cumulative, positive and negative of the environment ". The knowledge of these data and information reported, must be able to allow the assessment of the influence of the territory in question in relation to the possible investment interested. The study is carried out for concentric areas of variable radius with dimensions considered congruous and compatible for the purpose. The information and data provided must also allow the qualitative assessment of the document for the assignment of the Rating score and the identification of the risks attributable to the nature and to the possible evolution over time of the territorial area taken into consideration.	P2_A2_2.1_12	Description of the Asset, indication of the objectives and purpose of development	*1/3*	*Territorial and environmental aspects*	It contains data and infromation necessary for the identification of the area in question for geographic classifcation, state and qualitative consistency.	General information on the state of the terrain	General identifiation	Source	Comments	Evaluation	
									Morphology						
									Quality of the terrain						
									Characteristic of the terrain						
									Presence of aquifers						
									Reclamation						
									Land surface						
									Altitude, latitude, longitude, height difference (max-min)						
									Reference						
									Note						
								Verifications	Environmental						
									Earthquake						
									Industrial						
									Firefighting						
									Weather (water)						
									Thermonulcear						
									Volcanic						
									Tsunamis						
									Reclamation actions						
									Reference						
									Note						
					2/3	*Reference PRGC*	It contains specific references to the PRGC in relation to which is possible to know about the urban planning regulations of the area and the possibles interventions.	Reference urbam instrument	Refence data	Source	Comments				
									Type of interventions foreseen in the PRGC						
									Data and coefficients of the PRGC						
									Reference						
									Note						
					3/3	*Conversion hypotesis*	The details underlying the reconversion hypothesis are reported.	Description of the proposal	Intended use	Source	Comments				
									Type of impact						
									Description of the proposal						
									Duration in time						
									Reference						
									Note						

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P2_A2_3.1	Legal Due Diligence	These are the data and information that can be found in the analysis of the Legal DD (Notarial Report) and Technical DD, in relation to which it is intended to ascertain the existence of judicial constraints which may be grounds for impediment in the acquisition of Asset. It examines the active and passive legal situation of the Asset as a deed of origin, cadastral survey, examination of prejudicial transcripts such as voluntary and judicial mortgages, contracts and anything else that is detectable in Public Offices and Public Data Banks and access certificates available. In particular from the Legal DD (Notarial Report) the data and information regarding the "Sales Auction", the status on the "Entitlement", the presence of "alleys and charges bond by the buyer" updated to the date of inspection, while the DD Technical checks the "urban and municipal compliance" and anything else can make it possible to identify the "criticalities" of a technical/legal nature and the degree of complexity that causes the risk. The comparison with phase P1 (CTU) is also reported in order to ascertain the degree of coincidence and/or alteration/modification in relation to the time elapsed from the Technical Report to the DD Legal. All of the foregoing must allow us to carry out a qualitative evaluation of the document for the rating, as well as the identification of the risks.	P2_A2_3.1_13	Legal Due Diligence	1/6	Sales Auction Information	The data and information necessary for participation in the Auction is reported.	General	Procedure number	Source	Comments		Evaluation	
									Procedure type					
									Tribunal					
									Auction date					
									Execution					
									Creditor					
									Judge executing					
									Judicial custodian					
									Dales representative					
									Technical Consultant Office					
									Reference					
									Note					
								Auction Procedure	Auction location					
									Auction date					
									Auction time					
									Place of offer presentation					
									Date of offer presentation					
									Base price					
									Minimum raise					
									Minimum offer					
									Deposit					
									Number of lots					
									Reference					
									Note					
					2/6	Ownership	It is intended to ascertain the "Ownership" of the Auction Asset by reporting the data that certify the origin and their contractual bond.	Verification of the provenance of the good	Full ownership of the executor	Source	Comments			
									Owner					
									Reference number - Date and description					
									Reference					
									Note					
					3/6	*Urban planning and cadastral compliance*	It is related to the examination on "Urban planning and cadastral compliance" the assessment of which is necessary to verify the regularity of the registration of the Asset in the Public registers, as well as the existence of any abuses and discrepancies subject to amnesty.	Administrative acts	Act number	Source	Comments			
									Date of issue					
									Act typee					
									Description					
									Certificate of practicability					
									Reference					
									Note					
								Abuses and discrepancies	Progressive number					
									Type					
									Description					
									Remediable					
									Remediation cost					
									Reference					
									Note					
					4/6	Constraints and charges bonds by the purchaser	They are the collection of "constraints and charges bond by the buyer", subdivided by administrative and contractual restrictions, to which the Bene is obliged to comply.	Administrative constraints	Municipal constraints (Presence Expenses, Provisional description)	Source	Comments			
									Urban constraints (Presence Expenses, Provisional description)					
									Regulatory constratints (Presence Expenses, Provisional description)					
									Natural constraints (Presence Expenses, Provisional description)					
									Reference					
									Note					
								Contractual constraints	Preempetion constraints (Presence Expenses, Provisional description)					
									Bond constraints (Presence Expenses, Provisional description)					
									Use constraints (Presence Expenses, Provisional description)					
									Condominium (Presence Expenses, Provisional description)					
									Reference					
									Note					
						Mortgages and transcriptions	They are the collection of mortgages (registrations) and foreclosures and seizures (Transcripts) in force in relation to the Asset.	Mortgage	Type of mortgage	Source	Comments			
									Derived from					
									In favor					
									Cons					
									Capital					
									Interest amount					
									Total					
									Reference					
									Note					
								Transcription	Description					
									In favor					
									Coms					
									Place transcription					
									Date transcription					
									Register					
									Amount					
									Reference					
									Note					
					6/6	Relevant critical aspects	It is the collection of the critical issues examined in the individual parts of the document.	Relevant critical aspects	Land register (Critical indicator, Desription of critical issues and resolution measures)	Source	Comments			
									Urban register (Critical indicator, Desription of critical issues and resolution measures)					
									Reference					
									Note					
									Building (Critical indicator, Desription of critical issues and resolution measures)					
									Ownership (Critical indicator, Desription of critical issues and resolution measures)					
									Mortgages and transcriptions (Critical indicator, Desription of critical issues and resolution measures)					
									Reference					
									Note					
									Occupation status (Critical indicator, Desription of critical issues and resolution measures)					
									Contractual constraints (Critical indicator, Desription of critical issues and resolution measures)					
									Reference					
									Note					

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P2_A2_3.2	**Fiscal Due Diligence**	Documentation through which it is possible to carry out a review and verification of the tax obligations of the Asset, in order to highlight the existence of shares by public collection companies in relation to which there are pending economic charges or legal disputes.	P2_A2_3.2_14	Fiscal Due Diligence	*1/2*	*Fiscalities*	It is intended to ascertain the presence of fiscal gradients for the Asset.	Existence of fiscal gradients	Presence of tax gradients	Source	Comments	Evaluation		
									Description					
									Reference					
									Note					
					2/2	*Taxes*	The IRES, IRAP, IMU and TASI taxes are shown.	IRES and IRAP	IRES rates	Source	Comments			
									IRES Description					
									IRAP rates					
									IRAP description					
									Reference					
									Note					
								IMU and TASI	IMU rates					
									IMU Description					
									TASI rates					
									TASI description					
									Reference					
									Note					

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P2_A2_4.2	**Diagram and graphic tables**	All the technical documents available allow the graphic representation of the Asset, among which the cadastral maps, graphical and architectural diagrams, architectural and design in general, which show the measures necessary for a more precise identification in terms of localization, planimetric and volumetric sizing and in general the "forms" of Asset. The comparison with phase P1 (Technical Report) is reported in order to ascertain the degree of coincidence and/or alteration/modification in relation to the time elapsed from the Technical Report to the Technical DD. All of the foregoing must allow us to carry out a qualitative evaluation of the document for the rating, as well as the identification of the risks.	P2_A2_4.2_16	Diagram and graphic tables	*1/3*	*Cadastral plans*	All the cadastral documents are available, such as cadastral research, building plans, mortgage records, which allow the identification of the cadastral data of the Property. The comparison with phase P1 is reported in order to ascertain the degree of coincidence and/or alteration/modification in relation to the time elapsed from the Technical report to the Technical DD.	Land register	Prog number Type Description Reference register Reference Note	Source	Comments	Evaluation	
								Building register	Prog number Type Description Reference register Reference Note				
					2/3	*Urban and municipal*	These are the "graphic drawings" issued by the Municipal Public Offices of the PRGC and Municipal Concession Practices, which certify the census of the asset in question and allow the verification of its public technical-design compliance. The comparison with phase P1 is reported in order to ascertain the degree of coincidence and/or alteration/modification in relation to the time elapsed from the Technical report to the Technical DD.	Extracts from the PRGC	Prog number Type Description Reference register Reference Note	Source	Comments		
								Municipal plans (permits and concessions)	Prog number Type Description Reference register Reference Note				
					3/3	*Architectural and design plans*	They are all architectural and design plans that allow identifying the geometric measurements necessary for a more precise identification in terms of territorial location and planimetric and volumetric sizing. The comparison with phase P1 is reported in order to ascertain the degree of compilace.	Architectural and design plans	Prog number Type Description Reference register Reference Note	Source	Comments		

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P2_A2_4.2	**Schedule**		P2_A2_4.2_16	Schedule	*1/3*	*Processing time*	The times are considered as partial and total durations in the "day" time unit of the "Workings" planned and ordered according to "Works and Work Groups".	Duration of work	Ground Work (Cost, incidence, dates, duration) Material removals (Cost, incidence, dates, duration) Transport (Cost, incidence, dates, duration) Structures (Cost, incidence, dates, duration) Coverage (Cost, incidence, dates, duration) Buiding treatments (Cost, incidence, dates, duration) Installations (Cost, incidence, dates, duration) Windows/frames (Cost, incidence, dates, duration) Finishes (Cost, incidence, dates, duration) External (Cost, incidence, dates, duration) Reference Note	Source	Comments	Evaluation	
					2/3	*Time for indirect activities*	The times considered as partial and total durations are shown in the "day" time unit of the "Workings" envisaged and ordered according to the provisions of the Doc P2_A2_5.1_17 (S17) - Indirect Costs.	Duration on indirect activities	Documents regulation (Cost, incidence, dates, duration) Practical access (Cost, incidence, dates, duration) Documental retrieval (Cost, incidence, dates, duration) Technical services (Cost, incidence, dates, duration) Connection to OO.UU. (Cost, incidence, dates, duration) Design (Cost, incidence, dates, duration) Tranfers and inspection (Cost, incidence, dates, duration) Reference Note	Source	Comments		
					3/3	*Expected times for revenues*	The times are understood as the partial and total durations in the "day" time unit of the "Revenues" envisaged for the Asset in question.	Revenue time	Activities (Amount, Incidence, dates, duration) Reference Note	Source	Comments		

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P2_A2_5.1	**Economic Sustainability**	This is the document that shows the costs and revenues distributed over time, the comparison of which makes it possible to determine the economic sustainability of the investment for the acquisition of Asset. The parameters that contribute to the assessment of economic sustainability are the total and periodic difference in Costs and Revenues which provides a first (rough) indication of the periodic and total financial requirements and the TIR and VAN Economic rates, whose calculation values will be subject to subjective evaluations, variable according to the Assets in question. Values must be understood as "economic values" net of financial charges, such as VAT, Fiscal charges, Interest, ect. All of the foregoing must allow us to carry out a qualitative evaluation of the document for the rating, as well as the identification of the risks.	P2_A2_5.1_17	Revenue Costs Analysis	*1/1*	Revenue Costs Analysis	The parameters that contribute to the assessment of economic sustainability are the total and periodic difference in Costs and Revenues which provides a first (rough) indication of the periodic and total financial requirements and the TIR and VAN Economic rates, whose calculation values will be subject to subjective evaluations, variable according to the Assets in question. Values must be understood as "economic values" net of financial charges, such as VAT, Fiscal charges, Interest, ect. All of the foregoing must allow us to carry out a qualitative evaluation of the document for the rating, as well as the identification of the risks.	Direct Cost	Ground work	Source	Comments	Evaluation	
									Transport					
									Building work					
									Installations					
									Internal floorig					
									Windows					
									Coverage					
									External					
								Indirect Cost	TECHNICAL SERVICES (surveys, etc)					
									Connection to OO.UU.					
									DESIGN					
									PRACTICAL ACCESS ON DOCUMENTATION					
									ADMINISTRATIVE COST					
									SANATORY COST					
									TRANSFER AND INSPECTIONS					

			Amount						TIME		
			MO	MS	RESTRUCTURING	NC	Total	%	(dd)	from	to
DIRECT COST	**Work**	Ground work									
		Transport									
		Building work									
		Installations									
		Internal floorig									
		Windows									
		Coverage									
		External									
		Total DIRECT COST									
		%									
INDIRECT COST	**TECHNICAL SERVICES (surveys, etc)**										
	Connection to OO.UU.										
	DESIGN										
	PRACTICAL ACCESS ON DOCUMENTATION										
	ADMINISTRATIVE COST										
	SANATORY COST										
	TRANSFER AND INSPECTIONS										
		Total INDIRECT COST									
		%									
COST (CAPEX)		**TOTAL COST**					0				

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WBS			Document		Part									Rating	
Code	*Name*	*Description*	*Code doc*	*Description*	*Part num*	*Name*	*Description*	*Sheet*	*Data*	*Source*	*Notes*	*Qualitative and quantitative evaluation, risk list*	*Images, pictures and drawns*		
P2_A2_6.1	**Sensitivity Analysis**	The SWOT analysis is a decision support tool and responds to a need to rationalize decision-making processes to evaluate alternative development scenarios while simultaneously taking into account internal and external variables. Specifically, this analysis evaluates the Strenghts and Weaknesses of a system to highlight Opportunities and Threats. The first two, being variables that are an integral part of the system on which it is possible to intervene, are considered endogenous factors. On the contrary, opportunities and threats are considered exogenous factors because they are external to the system but still able to condition it.	P2_A2_6.1_18	SWOT Analysis	*1/1*	SWOT Analysis	This analysis evaluates the strengths StrenghtS and Weaknesses of a system to make it emerge Opportunities and Threats.	Internal and external factors	Strenghts Weaknesses Opportunities Threats	Source	Comments	Evaluation			

GENERAL RISKS		CAUSE		EFFECT	LIKELIHOOD	IMPACT	RISK VALUE		MITIGATION TOOL OF THE RISK	MITIGATION CAPACITY
Cod.	*Name*	*Cod.*	*Name*	*Description*	*Level*	*Level*	*Level*	*Value*	*Description*	*%*
R_1	Estimation of the asset value	*R_1.1*	*Changes in the Market conditions*	Unstrusted property evaluation					Make a new estimation of the porperty value with update data of the current year folowed by an insection	
		R_1.2	Absence of reference database	Estimatios not very reliable					Perfrom a new estimate updating the reference database	
		R_1.3	*Absence of historical data on auction procedures*	Motivations not reliable					Report auction history	
		R_1.4	*Acquistion threshold < 50%*	Excessive spending on acquisition					Peform a more accurate evaluation of the asset and verify that the market value guarantees good margins	
		R_1.5	*Using of the transformation method*	Criticalities on the initial assumptions					Update the existing documentation with more depth	
		R_1.6	*Information and data missing or incomplete*	Evaluation of the property untrusted					Update the existing documentation with more depth	
		R_1.7	*Long sales time*	Prolonged financial exposure due to sales delay					Adopt a appropriate acwuistion/sales strategy	
		R_1.8	*Real estate market with low or no economic relevance*	Sale with low margin					Constainment and retaining costs	
R_2	Characteristics of the good	*R_2.1*	*Reference documentation dated, unreliable or absent*	Possible changes to the buildings condition over time					Update the existing documentation with more depth	
		R_2.2	*Construction with non-modern techniques and materials*	Need to perform unforeseen restructuring and redevelopment					To verify, by means of an inspection, the state of fact and provide a redevelopment and upgrading	
		R_2.3	*Old and/or unverifiable instalations*	Carry out extraordinary maintenance or refurbishment of the instalation; increase of the cost					Carry out an inspection to check the current status of the instalations	
		R_2.4	*Non-compilance of surface consistencies*	Evaluation on volumetries inconsistent with the current state					Perform an inspection and carry out a more detailed calculation of the consistencies of the surface	
		R_2.5	*Maintenance and restoration work to be carried out*	Difficulty to dispose the Asset to a finite level					Perform maintenance and/or restoration work	
		R_2.6	*Energy certification lacking or absent*	Difficulty on considering the Asset completed and usable					Obtain the regularity of the energy certification	
R_3	Administrative compilance - authorizations	*R_3.1*	*Lack of documentation concening municipal authorizations, payment of concession fees and presence of formal irregularities*	Builiding regularity not adequate and fines and sanction for amnesties					Verify with the local authorities, resposible for the regularity of the authorizations law, the regularity of the property and arrange the payment of the amnesties	
		R_3.2	*Land registration dated or incomplete*	Builiding regularity not adequate and fines and sanction for amnesties					Update the cadastral data	
R_4	Legal constraints	*R_4.1*	*Presence of constraints or chargers for the buyer*	Prolongation of time and increase in costs					Draw up the reports in which evaluate how to treat the constraints	
		R_4.2	*Missing or inadequate documentation regarding registrations (mortgage and credit) and transcirpts (foreclosures and seizures)*	Prolongation of time and increase in costs					Recovey of documentation and verification with the notarial report	
		R_4.3	*Legal criticalities*	Presence of impeding conditions for the continuatuion of the proceduree					Verify the existence of criticality and provide resolutions for it	
R_5	Strategy risk	*R_5.1*	*Criticality deriving from the sensitivity analysis*	Difficulty in identifying the resolutive strategies					Adopt a better strategy	
R_6	Schedule Risk	*R_6.1*	*Time interval not congruent to the study analysis of the documentation*	Criticality for the preparation of the offer					Ponctual verification in the available time (exerimentation activities)	
		R_6.2	*Absence of temporal distribution by GANTT***	Inability to plan technical and economic activities					Creat a GANTT schedule	
R_7	Enviromental risk	*R_7.1*	*Pollution due to atural causes*	Danger to the environment and to the human health					Perform verification by inspections	
		R_7.2	*Pollution for man activities*	Danger to the environment and to the human health						
		R_7.3	*Natural calamities*	Danger to the environment and to the human health						
		R_7.4	*Natural causes not foreseen*	Need for adaptation works						
		R_7.5	*Reclamation*	Increase of cost and time, influence on the design and in the construction work					Predict the rehabilitation of the area and evaluate any project change and cost	
R_8	Economic results	*R_8.1*	*Indices below the threshold*	Low profitability					Increase revenue	
		R_8.2	*Return time of a high invested capital*	Extended exposure time					Anticipate sales time	
		R_8.3	*No return on invested capital*	Initiative at a loss					Implement strategy to ensure profitability	