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# Management and Resolution methods of Non-performing loans: A Review of the Literature

Anastasiou Dimitrios<sup>†</sup>

## Abstract

In the financial crisis of 2007, many banks with high level of Non-performing loans (NPLs) found their sources of capital dried up, which occurred because of bad management. Huge amounts of NPLs imply both a lack of management methods and lack of capital. Also, high NPL levels have resulted to negative effects to banks' lending activity, making bank officers-managers more concern for the future of the whole banking system. The purpose of this study is twofold. First, to present some NPL management methods that already exist in the literature and second, to make a clear distinction between the ex-post and ex-ante management of NPLs. I tried to collect in one paper what other researchers suggested for the proper management and fight against NPLs for different kinds of banking systems around the world. Hopefully, by examining these methods, banks will be able to cope with the problem of NPLs.

**Keywords:** *Non-performing loans; NPL management; bank restructuring; economic policy reform; financial stability; macroprudential policy; poor credit risk management*

**JEL classification:** G21, G28, G38

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## Introduction

Before mentioning the NPL management methods, I deem it appropriate to define which loans are called non-performing. As non-performing loans are characterized these specific loans which are past due over 90 days. To be more specific, if a borrower has a loan and he has not fulfilled his loan obligations to the bank for more than 90 days then his loan is considered as an non-performing. Exploring the management techniques of ex-post credit risk<sup>1</sup> is a matter of essential importance for regulatory authorities, banks and governments concerned on financial stability. NPLs can arise in a bank's balance sheet because of poor credit risk management.

NPL management does not only have to do only with finding ways to handle NPLs when they have incurred. It also has to do with the development and the implementation of policies and strategies concerning to the credit management, before the problem arises. That is the reason why there must be a clear separation of the managerial tools which have to be used (i.e. ex-ante and ex-post management) in order to deal with the problem of NPLs.

The objective of the management of NPLs is different for each bank. Nevertheless, in general, banks desire to have the lowest possible level of NPLs in their balance sheets. The reason is simple. If a bank has low levels of NPLs, this directly implies that it will have low levels of risk. As a consequence, the banks will have the least possible losses. Moreover, banks build their foundations on consumers' confidence. In the case that a bank appears to be "weak" or "fragile" then costumers might choose to withdraw their deposits and put them elsewhere. This unpleasant event may be happened when high

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<sup>1</sup> *"The ex-post credit risk takes the form of non-performing loans (NPLs)"*, Louzis et al. (2010)

levels of NPLs appear in a bank's balance sheet; since the existence of a high amount of NPLs indicates a "weak" credit management.

During the last decade, a remarkable literature on management of banking crises and restructuring has been written (Turner and Hawkins, 1999; Latter, 1997; Huang, 2001; Lee, 2002; Hoggarth et. al., 2004) and particularly on management of NPLs (Woo, 2000; Shih, 2004; Xu, 2005; Matousek and Sergi, 2005). Also, a plethora of literature exists on the determinants of NPLs such as Berger and DeYoung, (1997); Espinoza and Prasad (2010); Louzis et.al., (2010); Nkusu (2011); Anastasiou et.al (2016a); Anastasiou et.al (2016b) etc. Nevertheless, there is still scarcity regarding to the research that explains the differences of each resolution method and management technique of NPLs.

This study aims to describe, as analytically as possible, the methods and approaches that have already been mentioned from other conducted researches on how to deal with the problem of NPLs and therefore to avoid banking crises. As far as I know, this is the first study that collects all possible NPL management and resolution methods that exist in the literature in only one paper.

## I. The Impact of NPLs on banks' growth

Non-performing loans are considered to be a drag on the economic activity of each bank. A study from IMF (2015) supported that countries in which their banks have high levels of NPLs credit growth remains slow. More specifically, firms that are more dependent on bank finance are likely to be affected more than other firms from the reduced lending capacity of banks. Moreover, from IMF (2015) it was also found that banks that have high levels of NPLs on their balance sheets, they also have a lower ability for lending to the real economy. This happens through 3 major channels: Lower profitability: The existence of a high NPL level implies less net operating income for a bank. Also, increased levels of NPLs significantly reduce profits due to the greater effort that must be exercised from the human resources in order to manage and monitor the large stock of NPLs. Higher capital requirements: NPLs constitute risky assets. This means that they attract greater risk weights and as a result higher capital requirements will be needed. Higher funding cost: Banks that hold large amounts of risky assets, such as NPLs, make other banks and investors have less willingness to lend them or lend with higher funding costs. All of the above can be easily seen in the following figure.

\*\*\*\*\*Insert Figure 1 here\*\*\*\*\*

In particular, increasing levels of NPLs constitute a substantial drag on the banking performance in the sense that banks with high levels of NPLs will have:

- net interest income cuts
- rise of impairments costs
- extra capital requirement for risky weighted assets
- potential lenders with lower risk appetite (i.e. less risk-lover borrowers)

## **II. Management of non-performing loans**

### **a) Ex-Ante NPL management**

The Financial Stability Institute strongly believes that addressing the non-performing loans' problem is a non-stopping challenge.

According to Campbell (2007), during the last twenty years, the most common method for coping with the problem of non-performing loans is the creation of an institution by public authorities, which will be responsible for dealing with NPLs. Of course, apart from this method, there are other methods that can help banks to deal with NPLs.

Campbell (2007) stated that it is vital to consider three distinct factors in order for the problem to be addressed. The first factor has to do with how banks can prevent NPLs or keep them into controllable levels. Secondly, the specific banks in which NPLs can be found is another important matter. Lastly, another factor that should be considered is how insolvent banks should be treated. Thus, Campbell (2007) argues that the first stage for the NPL management is prevention and control. Having adequate legal powers is of high importance in order for the banking supervisors to undertake their task and to be effective. More specifically, these kind of powers should include an appropriate licensing system, and as for the supervisor, he ought to have a variety of tools for corrective action, such as the ability to close banks by withdrawing the banking license. Moreover, the supervision and prudential regulation system, as I previously mentioned, is not adequate in the case of banks with liquidity problems. This is the reason why an emergency liquidity financing mechanism is needed. A mechanism as such, could be provided only by central banks, but in order for an increase in moral hazard in the financial system to be prevented, the mechanism's usage must be discretionary.

With respect to the second stage, banks should manage their impaired assets. Impaired asset management is not only a complicated but also an important aspect of the recovery process of insolvent banks.

After the prevention-control and the management of the impaired assets at the third stage comes the treatment of insolvent banks. The good condition of the banking system is essential for each country's economy, and more specifically for the payment system. Furthermore, it is an undeniable fact that the financial problems of one bank may cause problems to others, or/and if there is a systemic banking crisis, the depositors will take their money away from the banks; a problem which will spread to all banks.

During the past 25 years, a lot of systemic banking crises occurred, a major factor of which is the speed with which the banks develop and spread. Another interesting question, that Campbell (2007) is occupied with, is the speed with which the crises spread. This has to do with the nature of the banking business. Based on what has been mentioned so far, even if there is a well-managed bank that has a powerful balance sheet it may be subjected to liquidity problems. As a consequence, a liquidity funding mechanism is used in the most developed banking systems by central banks, in order to help the operations of the banks in their interbank market. A bank supervisor must be alerted by a liquidity problem, which sometimes may cover dire problems. Before the supervisor decides on his actions, he should take into account the case of the potential doubtful quality of the whole or a part of the bank's loan portfolio.

Ugoani (2015) also suggested some ideas for an ex-ante management of NPLs in Nigerian banks, some of which can be generally adopted by other governments and/or banks. Firstly, he proposed that bank regulatory authorities have to improve the micro and macro prudential guidelines for banks. Another measure which could be possibly implemented is not to allow banks to grant loans to their subsidiaries. Moreover, external auditors of banks should have a maximum of two years tenure. That is because a tenure

of long duration provides ground for the emergence of corruption. Finally, the central management of each bank should not be composed of “self-professed gurus” of banking, because history has proven that some of them have criminal intent.

Furthermore, bank managers should be disciplined men with excellent knowledge in the areas of banking, finance and risk management. Also, the decisions that the credit managers take must be absolutely unbiased, and not be influenced by political corruption and personal interest, as happened during the banking crisis in Pakistan. (Masood et. al. 2010)

#### **b) Regulatory Forbearance and bank resolution**

According to Pagano (2014), bank resolution issues are closely associated with issues of supervision. The concerns of the European policy-makers as far as the banks and regulators’ excessive forbearance is concerned, have been heightened by the euro debt crisis. An additional “preoccupation” of the European policy-makers is the potential forbearance which might be generated by the cross-border externalities and the absence of a resolution mechanism, which is integrated, for problematic banks with an expansion of cross-border operations. Pursuant to Pagano (2014), the European Commission and Parliament made an attempt to encounter these problems by drastically reinspecting not only the banks’ prudential supervision system, but also the banks’ resolution particularly for these banks which are considered to be systemically important. Moreover, in 2013 -and more specifically in November- the “Single Supervisory Mechanism (i.e. SSM) regulation”, by which the ECB was bestowed bank supervisory powers, started functioning. Thus, a new system of financial supervision was generated by the SSM, which consists of the national authorities. The reduction of the risk in regulatory forbearance, which should emanate from the bank's supervision centralization, can be accomplished by placing homogeneous standards. The Bank



Recovery and Resolution Directive (BRRD hereafter) was incorporated by the EU Parliament in April of 2014. Thus bank resolution and supervision possess at least a borderline set of tools and powers to intervene if required. Thus, the national resolution authorities are entitled with the power to resolve banks' branches based in other countries under certain circumstances and are provided with a framework which consists of an enhanced collaboration and synchronization between the resolution authorities and national supervision.

In addition, one of the immediate objectives of BRRD is to allow authorities to rescue a bank, which needs resolution, using internal resources, and thus to bail in some of its liabilities. The main benefit of this act is that the government subsidy which is granted to banks in the European Union will be reduced. Moreover, it will help banks reduce their motivation to indulge in ex-ante excess "tolerance" (i.e. forbearance). Pagano (2014) also pointed out another established mechanism that has also been approved from the European Parliament. This mechanism is the Single Resolution Mechanism (SRM hereafter). This resolution mechanism has three serious weaknesses. Its first major weakness is that it entrusts the decision for the closure of a bank in a large number of authorities, such as the ECB (which is the prudential regulator), the board of the SRM and the European Union Commission, but it allows for the resolution's implementation to be carried out by national authorities. A second disadvantage is that different types of financial institutions, whose bankruptcy may set off a financial crisis, also known as systemically important financial institution (SIFI hereafter), cannot be supported by the Single Resolution Fund. The last downside of this mechanism is that the resolution mechanism of the EU is not supplemented by a centralized deposit insurance mechanism which is going to be used as a safety net to deposits and therefore, bank runs might arise in countries where banks seem to be distressed. A centralized

deposit insurance mechanism can be found at the Federal Deposit Insurance Corporation (FDIC hereafter) in the US.

**c) Ex-Post NPL management**

Campbell (2007) highlighted that during the past decades, there were a lot of systemic bank crises which occurred due to a lot of impaired assets (mostly NPLs) and the reason behind this, is the liquidators' inability to accurately cope with them. During the last twenty years, the most appropriate ex-post method to cope with the non-performing loans problem is the creation of one or more institutions by public authorities, which will be responsible for coping with NPLs of the insolvent banks in general. The previously mentioned institutions are widely known as asset management companies (AMCs hereafter). In most of the cases, an AMC will probably be an organization administered by the government, which will face the need of having legal powers essential for the management of NPLs. In addition, regarding AMCs, it has to be mentioned that the most widespread and accepted method in many countries is that the individual banks sell their NPLs to an AMC. The main benefits for choosing this method are the following (Woo, 2000):

- Enhancement of credit discipline: if there is a clear separation of bad loans from the financial institutions this might lead to a more effective and objective management of NPLs
- Division of labor: separating NPLs from a distressed bank permits to the bank managers to be more concentrated on banking restructuring and new lending, since AMCs managers have to be focused on the recovery of NPLs.

However, the separation of NPLs and good assets has some drawbacks, such as (Woo, 2000):

- Pricing of bad assets: It is a very labored process the correct pricing of the transferred bad assets, especially during economic crises.
- Political intervention: The vast majority of AMCs are state owned. So, it is not so easy to exclude the governmental management and therefore to avoid a potential political interference.

Turner and Hawkins (1999) supported that the possibility of segregating the management of the bad debts, from the originating bank, is required to be one option in a debt consolidation program. That being said, the fact that a bank is preoccupied with the task of dealing with bad debts is likely to extremely increase its risk-aversion. To move a little further, another eventuality is considered to be the purchasing of the non-performing loans from the bank itself by a government agency. However, the bank should have the onus to continue administering the NPLs. Nevertheless, such kinds of arrangements are quite difficult to contrive in such a manner to provide the selling bank with a strong inducement to assiduously pursue the borrowers. However, the main drawback is that the worst NPLs can be sold by the banks to the AMC at a higher price while the NPLs with better prospects will be retained, due to the fact that the assets are mispriced. “Purchasing” problematic assets with bonds that are guaranteed by the government, is another widespread method for the AMC. When the bonds have matured enough the AMC hopes to sell off the assets. If the AMC has bought the assets at a market price, the government guarantees should not be necessary. Such bonds can be zero-coupon (Malaysia and Mexico) or interest-bearing (Korea) (Turner and Hawkins, 1999; Inoguchi, 2012).

Finally, an alternative mechanism for the government could be to take over the problematic banks for a while. Such banks are known as State owned banks (SOBs hereafter).

The difficulty of this method is that during this period banks must continue working on “commercial lines” and trying to collect the impaired loans. This mechanism can prove risky if banks continue to be public for many years. This happens either because the government does not find the buyers or the terms of purchase acceptable or because this temporary state is favored by both borrowers and employees.

During and after the Asian financial crisis, Malaysia and Thailand also established AMC's in their efforts to cope with the large amounts of non-performing loans that they had. In particular in 1998 a public AMC was created from the Malaysian authorities with the name Danaharta. This state owned AMC bought non-performing assets at market value. Apart from the Danaharta, Malaysian authorities also used a plethora of other policies and measures in order to expunge NPLs, such as banking consolidation and bank closure.

According to the case of Thailand, in 2001 the authorities of Thai created its own AMC named TAMC. The Financial Institutions Development Fund (FIDF) funded the establishment of TAMC. Prior to the establishment of TAMC each bank has set up its own AMC. Nonetheless, these AMC's were not able to sufficiently eliminate the amount of NPLs. It has to be mentioned that according to Inoguchi (2012), although TAMC established after the Danaharta, it bought with a steady pace huge amounts of NPLs each year (between 680 and 780 billion baht<sup>2</sup>).

Stijepovic (2014) stated that in order to have a proper bad debt (i.e. NPL) restructuring process, three types of restructuring measures must co-exist:

- Financial restructuring measures: The first thing that has to be done is the creation of a restructuring plan for each type of loan separately. This restructuring plan must be well-designed and it should contain collateral

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<sup>2</sup> Baht is the official currency of Thailand.

valuation, adequate legal documentation and financial information about the business activities of the borrower. Other financial restructuring measures could be the debt relief, interest rate cuts and a payment extension of the interest.

- Corporate restructuring: This type of restructuring implies changes on some elements of the capital structure of each firm. Such changes could be in firm's capital, organization, assets and management. Changes in management structure include the removal of the already existing manager. Regarding the changes in assets, a company can sell its assets in order to retrieve cash and therefore to ensure its payment obligations.
- Business restructuring measures: Some key business restructuring measures could be the option of a merger or acquisition, and the realization of "disinvestment transactions".

**d) Ex-ante and Ex-post NPL measures: The Euro area case**

Banks in the Euro area are striving with the high NPL levels. For the whole EU, the ratio of NPLs reached over 11% of GDP at the end of 2015. In the Euro area, NPLs are especially increased in some of the Euro area periphery countries, such as Greece, Portugal, Spain and Cyprus.

**\*\*\*\*\*Insert Figures 2 and 3 here\*\*\*\*\***

In my opinion, the main ex-ante measures that can effectively help banks to overcome the NPL problem are the following:

- Tightening of bank supervision and strengthen of capital requirements.

If there was more collateral valuation and a more conservative provisioning, then banks would be more encouraged to deal with NPLs quickly. Moreover, bank supervisors must require from banks to set aside even more capital for non-performing

loans which remain on their book for a long period. Also, bank supervisors should require from banks to achieve the loan restructuring goals within a logical time period.

- Structural reforms

Structural reforms are also needed in order to make debt collection a much easier task. The court procedures are very time consuming and hence they should be shortened. The out-of-court arrangements (Garrido, 2012) constitute an alternative approach, which is highly encouraged. Such reforms would make it easier for banks to write off bad loans.

- Developing internal NPL management skills

Banks have to be fostered to develop an inclusive management plan for NPLs. This NPL management plan should specify the rules and practices for the resolution of NPLs. These rules and policies could be 1) the removal of the bad loans from typical loans and adoption of concrete tools for early arrears, and 2) conducting risk scoring more often.

Ex-ante NPL management methods are maybe more important than the ex-post measures since prevention is the best cure. These ex-ante measures can be characterized as pillars of reform and they have to be implemented simultaneously in order to have better results.

Below I tried to make a brief list with all kinds of ex-post NPL measures that were implemented in the Euro-Zone since the beginning of the 2007-2008 financial crisis (IMF, 2015).

- I. Bad banks

The creation of a bad bank is maybe the most classical approach that can be used in order to manage banks' NPLs. When banks are in an emergency situation because of high NPL levels and there is not any private solution then public bad banks have to be

set up. The role of bad banks is simple; their role is to take over the impaired assets/loans and relieve private banks. The first bad bank was created by Mellon bank in 1989. Ten years later<sup>3</sup>, in 1998, we have another example of bad bank, IMBRA in Indonesia which was established during the Asian financial crisis. Other typical examples could be KA Finanz of Austria and Erste Abwickelungsanstalt and FMS Wertmanagement in Germany.

## II. System-wide Bad banks

Banks with problematic loans which are under restructuring transfer their non-performing assets to these bad banks. Prominent examples of system-wide bad banks are BAMC of Slovenia, SAREB in Spain and NAMA in Ireland. While BAMC is full publicly owned, SAREB and NAMA are both privately owned. Such banks may create economies of scale in the illiquid assets management. It has to be mentioned that a publicly owned bad bank's capital structure plays an important impact on public finances, because bad banks' NPLs are considered as public debt.

## III. System-wide aid free mechanisms

Some member states of the Euro-area took the decision to develop new mechanisms in which state aid is not involved. Specifically, on February 2016 an asset protection scheme was approved by the Commission for the Italian banks. As a result, the Commission came to the conclusion that the transfer of NPLs has to be done at market prices without the state aid inclusion.

## IV. Asset protection schemes

Instead of the classic case of physical transfer of NPLs, an alternative measure was the provision of guarantees in order to cover the losses that have to do with a specific

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<sup>3</sup> The bad bank of Indonesia in 1998 was not the second bad bank in the history. Between 1988 and 1998 other bad banks were also created.

asset portfolio. Schemes like these have the ability, through an insurance mechanism, to cover the losses until we have favorable market conditions again. Countries which constitute featured examples of this measure are Spain, Austria and Germany.

### **III. NPL resolution methods**

According to figure 4, if a bank wishes to achieve a desirable outcome, with respect to NPL resolution, a number of factors must coexist and work in harmony. For instance, legal and regulatory infrastructure should enact laws and rules in order to facilitate the resolution of NPLs. Alongside the legal and regulatory infrastructure, prudential regulatory authorities have to give stronger inducements to banks to accelerate the collection of NPLs. Apart from the above, bank shareholders have to finance the planning objectives of the bank.

**\*\*\*\*\*Insert Figure 4 here\*\*\*\*\***

Following Xu (2005), I present the most popular NPL resolution methods:

- Debt-for-Equity-Swap

Debt-for-Equity-Swaps are one way of dealing with subprime mortgages-NPLs (Xu, 2005; Stijepovic, 2014).

These types of Swaps are generally created to help a struggling company and hence to help the company to continue to operate. Typically, what a lender might claim is a rise in the margin, the restructuring fee payment, further deleveraging and the provision of further security (i.e. further guarantees). On the other hand, the borrower has to look for a standstill agreement, when the D/E swap terms are in a negotiation stage.

This resolution method has many benefits as it helps companies to grow, protects the employment and expands the firm's lifeline.

Regarding companies, this solution is highly beneficial as it enables them to continue trading and competing by temporary relieving them of their debt burden. Moreover, a



debt-for-equity swap can achieve a longer value appreciation for all stakeholders, since the insolvency measures create only partial value for specific creditors. Nevertheless, debt-for-equity-swaps have some disadvantages. Maybe the most important disadvantage of this method could be the fact that D/E swap can be time-consuming and expensive. Also, in practice D/E swap might not be able to combine fulfillment of both secured creditor and company's aims. Xu (2005)

- Direct Sales to Investors

Xu (2005) supports the argument that this NPL resolution method takes two forms: “sales of individual assets and bulk sales, including negotiated sales and auctions”. The most common kind of transaction is sales of debt rights, which is followed more by settled assets and less by equity rights. Investors benefit from the existing difference between their “ultimate recovery price” and “the purchase price”. According to Xu (2005), some investors “manage to foreclose on assets backing the loans”, despite the existing difficulty coming from legal and bureaucratic limitations.

In some countries there is a scarcity of repossession and foreclosure laws. Due to this fact, foreign investors make the decision to bid on deals acceptable to the borrower and to settle NPLs at a reasonable price. Correspondingly, foreign investors hardly take part in restructuring programs of indebted companies and this is because of weak bankruptcy legislations.

- Securitization

In the case of non-performing loan securitization, the receivables which are securitized are the awaited stream of cash flows that result from the NPLs.

The major advantage of the asset securitization process is that it can repackage cash flows, created by a diversified loan portfolio, into marketable securities and thus can aim at a wider investor base with varied risk characteristics. Due to the large number of the European Union's NPLs and the sluggish pace of recovery until now, securitization

appears to be an excellent solution because it permits the collection of a significant number of assets. As a result, there is an instant cash recovery for the seller. Additionally, as Xu (2005) mentioned, securitization allows for the design of securities with different security levels (i.e. various returns and maturity dates). Each tranche has diverse classes of loss protection and therefore could appeal to investors ready to take on a wide range of risks. Finally, it has to be mentioned that the most notable challenge for securitization is the deficiency of the respective legislation.

#### **IV. Structural barriers to NPL Resolution in European Union**

NPLs have been meaningfully increased for all the EE countries since 2008, mostly because of aggressive lending, poor governance and supervision, lax credit controls, aggressive acquisition strategies and loosen of the credit underwriting policies.

This *status quo* get even worse with the protracted economic recession forcing even more the highly-leveraged borrowers (i.e. borrowers with already high levels of debt) into financial difficulties and resulted to the existence of a significant number of defaults. Last but not least, another decisive factor which contributed to have these elevated levels of non-performing loans throughout Europe is the amplified regulatory requirements for NPL management.

As we can see from the figure 5 below, the absence of distressed debt markets and a proper legal system are considered as the greatest challenges for the creation of a well-designed NPL resolution mechanism, instead of other obstacles (structural or institutional).

**\*\*\*\*\*Insert Figure 5 here\*\*\*\*\***

More specifically, some of the structural barriers to NPL Resolution in European Union are:

- Poor equipment of available tools and sources: Some banks fail to undertake an internal resolution of NPLs because of scarcity of resources, experience and restructuring tools. In countries that face serious problems with their banks' NPLs (such as Greece, Ireland and Cyprus) the supervisory authorities employed independent specialists in order to examine the NPL managerial ability of banks. Their findings were really disappointing.
- Tax regimes: Banks' incentives for resolution of their NPLs may be reduced due to specific tax regimes. For example, until recently the Italian banking authorities gave penalties to banks which wrote off NPLs in a more aggressive manner. This Italian tax treatment has permitted tax reliefs only for write offs in insolvent conditions. Another example is Spain, where taxes on D/E swaps recently eliminated in order to encourage banks to acknowledge their losses from bad assets.
- Accounting standards: Accounting standards do not provide an adequate motivation for the resolution of NPLs. For example, although the International Financial Reporting Standards (IFRS) explicitly allow loan amortization of impairment losses, they do not give any information for writing off modalities, which are remained with the supervisors. Moreover, under IFRS, insufficient provisions may be incurred due to the *incurred-loss approach to provisioning for loan losses* which gives an essential space for judgement.
- The size of the capital buffers: Banks' capability to increase provisions will be constrained if there exist low capital buffers and low profitability. So, a bank with NPL superfluity and with a less loss absorbing capability could worsen the situation.

- Small distressed debt market: The European distressed debt market is really small compared to the corresponding market in the U.S.A. Banks' collection burden is reduced when there exists a disposal market for NPLs. Also, a large market for distressed debt is able to boost the loan recovery values. However, the European distressed debt market is not yet full-developed and its focus is mainly on commercial loans and commercial real estate.

## **V. Conclusions and Policy implications**

The issue of non-performing loans is a continuous and unstoppable challenge not only for Europe but also around the world. In this paper I tried to summarize as much as possible of the existing literature on the management and the resolution methods of the theme of NPLs. I also tried to make a clear separation of ex ante and ex post measures in order to address the theme of NPLs.

Countries which face a big problem of NPLs must explore the aforementioned methods and examine them from a new angle. I am convinced that if governments of each country establish the following rules-actions, then much of their problem of non-performing loans will be eliminated. To begin with, AMCs have to be established and governments have to foster banks to accelerate the NPL transmission procedure. Also, SOBs have to be allowed to sell non-performing loans below of their book value to other investors. Concerning the resolution techniques of NPLs, the method of the debt-for-equity swap while it appears to have some effectiveness, ultimately only helps transient the capital structure of the firm. Finally, legislations for foreclosure must be created or be improved and a law for NPL securitization has to be enacted thus allowing the formation of SPVs.

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Note:

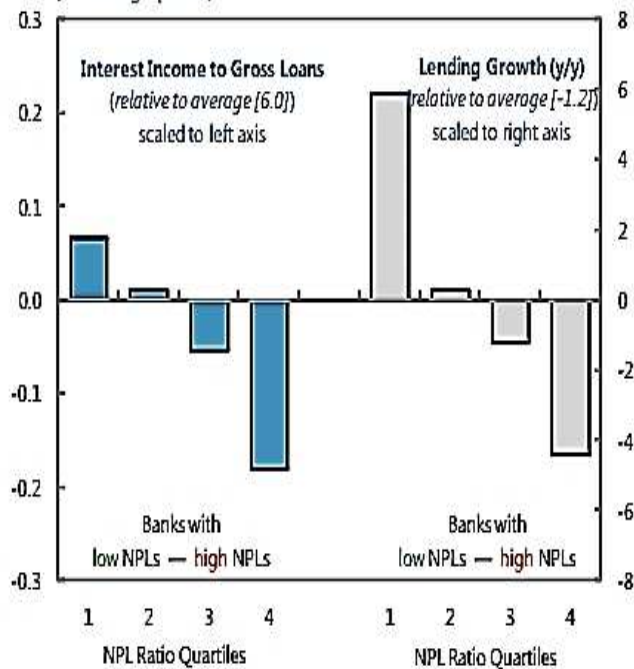
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## Figures

**Figure 1:** The impact of NPLs on the banking activities

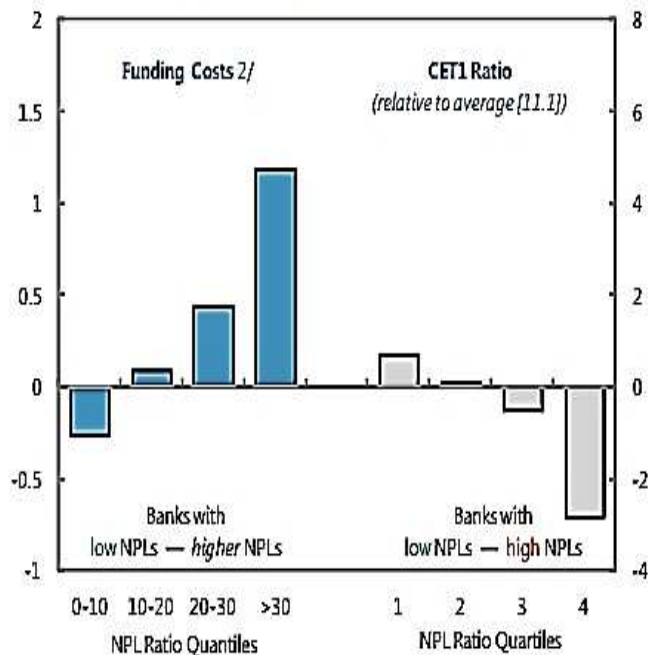
*Banks with higher NPLs tend to be less profitable and have a diminished capacity to lend ...*

**Euro Area: Impact of Nonperforming Loans on Interest Income and Lending Growth 1/**  
(Percentage points)



*... as rising provisioning needs and funding costs diminish their ability to generate capital buffers.*

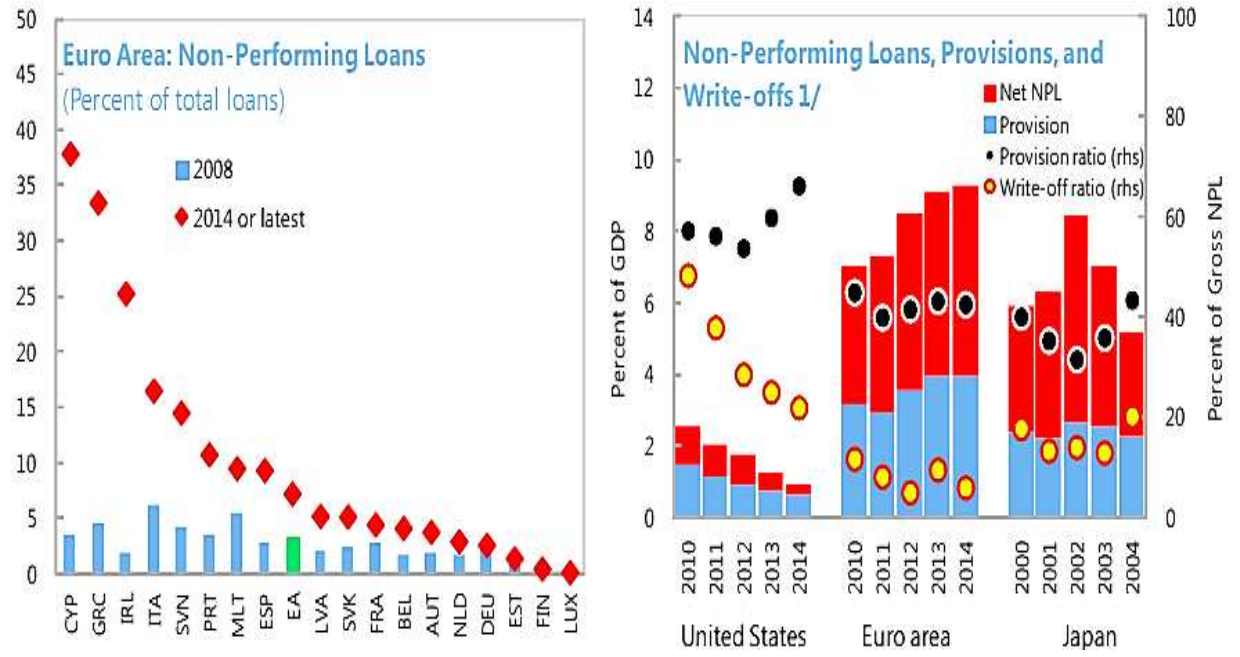
**Euro Area: Impact of Nonperforming Loans on Funding Costs and Provisioning**  
(Percent [left]/Percentage points [right])



Source: IMF (2015)

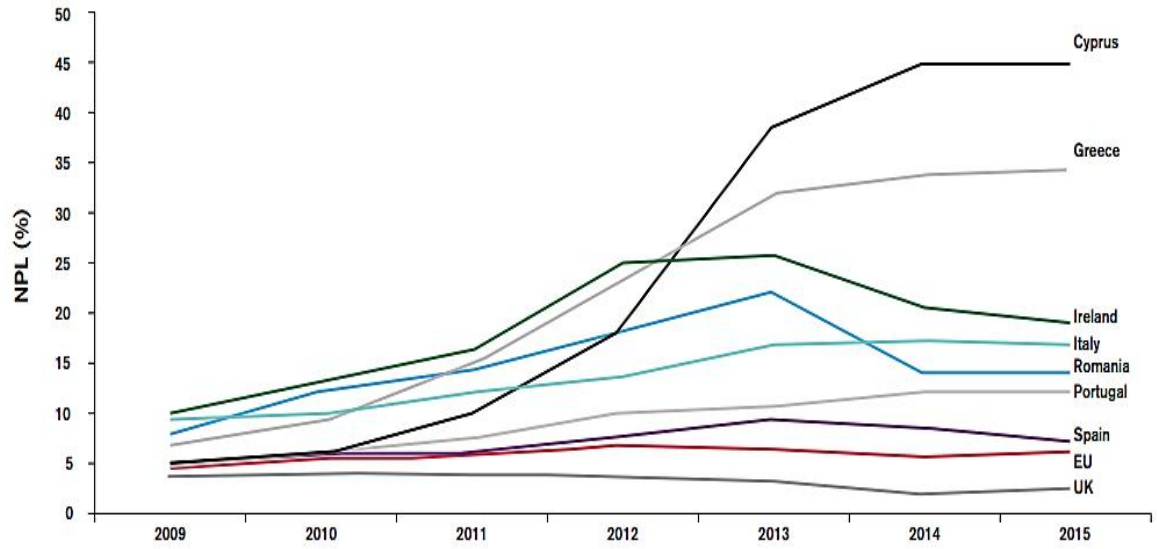


**Figure 2: Non-performing loans in the Euro Area**



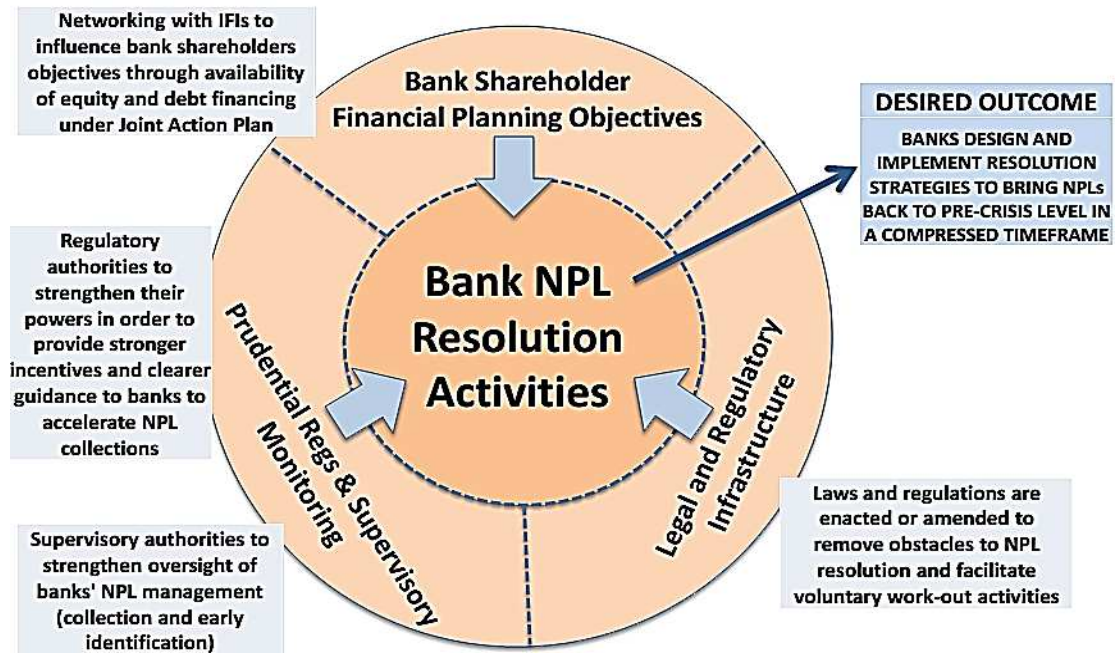
Source: IMF (2015)

**Figure 3:** Gross NPLs % Total Loans for the Eurozone's Periphery countries



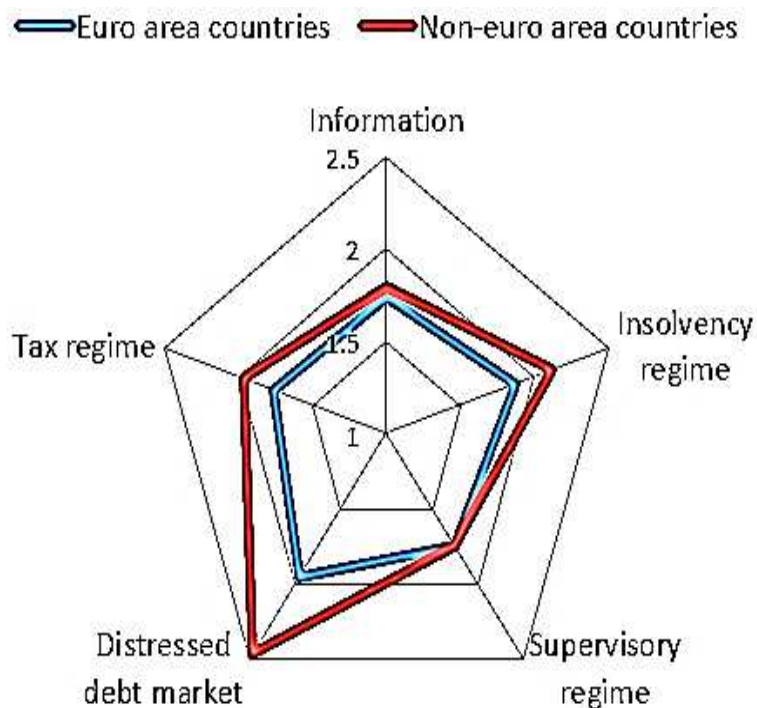
Source: World Bank, European Banking Authority and International Monetary Fund

**Figure 4: The NPL Resolution “System”**



Source: Johnson (2013), “NPL resolution: A market overview”

**Figure 5:** Scores on NPL resolution obstacles, based on an IMF survey



**Notes:** The figure presents the average obstacle scores based on the survey responses of Euro-area and non-Euro-area countries with high levels of NPLs. For each country, the final obstacle in each area is a maximum of two scores, based on the responses of the authorities and banks operating in these countries. The range of the values of these scores is from 1-3, where 1 means no concern, 2 stands for medium degree concern and 3 implies high degree of concern.

Source: IMF (2015)