September 2015 SDN/15/19

IMF STAFF DISCUSSION NOTE

A Strategy for Resolving Europe's Problem Loans

Shekhar Aiyar, Wolfgang Bergthaler, Jose M. Garrido, Anna Ilyina, Andreas Jobst, Kenneth Kang, Dmitriy Kovtun, Yan Liu, Dermot Monaghan, and Marina Moretti

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A Strategy for Resolving Europe's Problem Loans

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EXECUTIVE SUMMARY

European banks face significant challenges from their high levels of impaired assets. The global financial crisis and subsequent recession have left many countries with elevated levels of nonperforming loans (NPLs). NPLs in the European Union (EU) stood at about €1 trillion (or over 9 percent of the region's GDP) at end-2014, more than double the level in 2009. NPL levels are particularly high in the southern part of the euro area, as well as in several eastern and southeastern European countries.

Persistently high NPLs hold down credit growth and economic activity. High NPLs tie up bank capital that could otherwise be used to increase lending, reduce bank profitability, and raise funding costs, thereby dampening credit supply. Reducing NPLs expeditiously will therefore be crucial to spur credit growth, especially to small and medium-sized enterprises (SMEs) that are more reliant on bank financing. Further, "unclogging" the bank lending channel would enhance the transmission of monetary policy to the real economy. Resolving impaired loans would also stimulate demand for new loans, as it would facilitate debt restructuring for viable firms while promoting the winding down of unviable firms.

This discussion note examines the structural obstacles that discourage European banks from addressing their problem loans. Write-off rates for European banks remain much lower than those of U.S. banks, despite a much higher stock of NPLs. Results from a new survey of European country authorities and banks indicate that there are serious and interrelated impediments to NPL resolution in the areas of supervision, legal systems, and distressed debt markets, often compounded by informational and other institutional deficiencies. Insufficiently robust supervision can allow banks to avoid dealing with large NPL stockpiles and carry them on balance sheets for much longer than warranted. Weak debt enforcement and ineffective insolvency frameworks tend to lower the recovery values of problem loans. And markets for distressed debt in Europe—with some notable exceptions—are still underdeveloped, preventing the entry of much needed capital and expertise.

Accelerating NPL resolution in Europe requires a comprehensive approach based on three key pillars:

- Enhanced *prudential oversight* to incentivize banks to write off or restructure impaired loans, including efforts to foster more conservative provisioning and imposing time-bound restructuring targets on banks' NPL portfolios. In EU countries the Single Supervisory Mechanism (SSM) and European Banking Authority (EBA) should spearhead this effort, while national regulators will need to take the lead in other jurisdictions.
- Reforms to enhance *debt enforcement regimes* and *insolvency frameworks*. Effective out-of-court restructuring frameworks and improved access to debtor information should be encouraged.
- Development of *distressed debt markets* by improving market infrastructure and, in some cases, using asset management companies (AMCs) to jump-start the market.

INTRODUCTION

1. **Seven years after the onset of the global financial crisis, much of Europe continues to grapple with large stocks of impaired assets.** The financial crisis and ensuing recessions have left many European countries with high levels of NPLs, and, in some cases, large corporate and household debt overhangs. In several European economies—notably in the southern part of the euro area as well as in eastern and southeastern Europe—NPLs are high and still rising. And write-off rates are too low—less than a quarter of that in the United States—creating a growing backlog of impaired assets. NPLs are generally concentrated in the corporate sector, most notably among SMEs, which contribute almost two-thirds of Europe's output and employment, and tend to be more reliant on bank financing than large firms. Given the urgent need to support Europe's still tentative recovery, resolving NPLs expeditiously to promote new lending is of first-order macroeconomic importance.

2. **This discussion note examines the causes and consequences of persistently high NPLs in Europe and proposes a multifaceted strategy for tackling the problem.** Section II details the scale and distribution—across countries and sectors—of the NPL backlog. Section III examines the macroeconomic consequences of elevated NPLs, particularly their negative impact on credit supply, corporate restructuring, and monetary policy transmission. Section IV looks at the structural obstacles to NPL resolution in Europe, drawing from a new survey of country authorities and banks. On the basis of these survey results, as well as international experience with high NPLs, Section V formulates a comprehensive approach to dealing with the problem. This comprises enhanced prudential oversight, insolvency reforms, and further development of distressed debt markets.

HOW SERIOUS IS EUROPE'S NPL PROBLEM?

3. **NPLs have risen sharply across Europe since the global financial crisis.** The deep and prolonged economic downturn has weakened borrowers' debt service capacity, particularly for those borrowers that were overleveraged, leading to an increase in loan defaults. High NPLs also reflect banks' slow pace of restructuring, disposals, and write-offs, with only a handful of countries showing lower NPL ratios at end-2014 compared with their post-crisis peaks (Figure 1). While economic conditions have gradually stabilized across Europe, NPLs continue to increase in many stressed economies, albeit at a slower pace.

4. **The increase in NPLs has, on average, been larger for countries outside the euro area, with a few extreme exceptions (Figure 1):**

- *Euro area countries*: The stock of nonperforming assets has more than doubled since 2008, climbing above €932 billion (or 9.2 percent of euro area GDP) at end-2014.[2] The ECB's

[2] The data used in this section are mainly from the IMF Financial Soundness Indicators (FSI) database, with benchmark NPL ratios from national sources used in some cases. While IMF FSIs provide the most comprehensive

(continued)

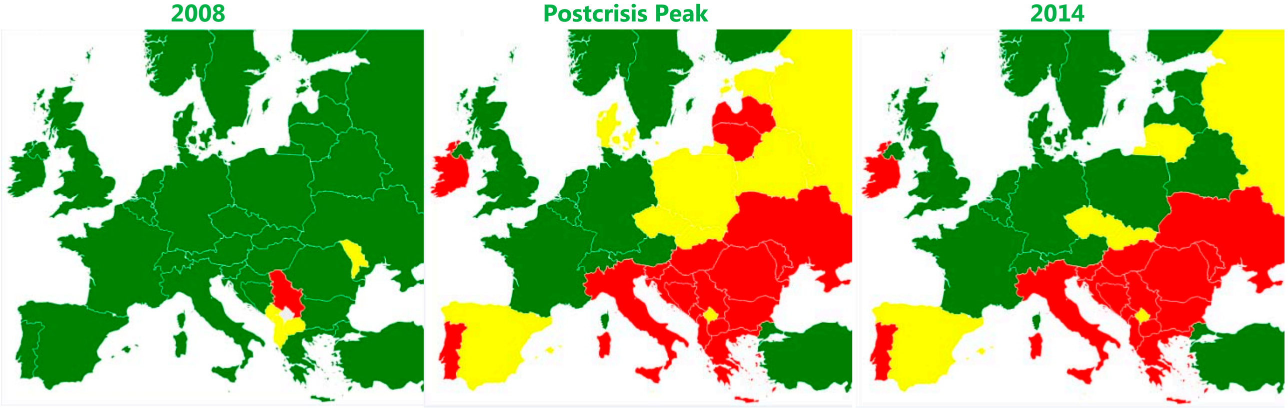
Comprehensive Assessment (CA) of the largest euro area banks in October 2014 revealed a much larger stock of impaired assets than previously disclosed, reaffirming that balance sheet repair is far from complete. Nonperforming exposures (NPEs) of these banks as a share of total loans have increased from 9.2 to 12.4 percent on average.[3] By end-2014, gross NPL ratios exceeded 10 percent in several euro area economies, and reached exceptionally high levels in Cyprus (more than 40 percent) and Greece (35 percent).[4] Sixteen banks in eight countries reported NPEs of 30 percent or higher.

- *Non–euro area countries*: Many non–euro area countries—mainly in central, eastern, and southeastern Europe (CESEE)—experienced substantial increases in NPLs, as their economies plunged into recession after the global financial crisis. Peak NPL ratios were the highest (above 20 percent) in Albania, Montenegro, Romania, and Serbia. In some cases, steep increases in NPLs were triggered by currency depreciation, as many household and corporate loans were denominated in foreign currencies (euros or Swiss francs) while their incomes were in local currencies.

Figure 1. *Europe*: NPLs after the Global Financial Crisis

Nonperforming Loan Ratios, 2008–14

Green = less than 5% ; **Yellow** = between 5% and 10%; **Red** = above 10%



Sources: FSIs and country authorities.
Note: The FSIs are computed using consolidated bank data and therefore do not reflect only domestic NPLs. For example, in Spain the postcrisis peak and 2014 figures based on domestic data only are above 10 percent (13.5 percent and 12.5 percent, respectively).

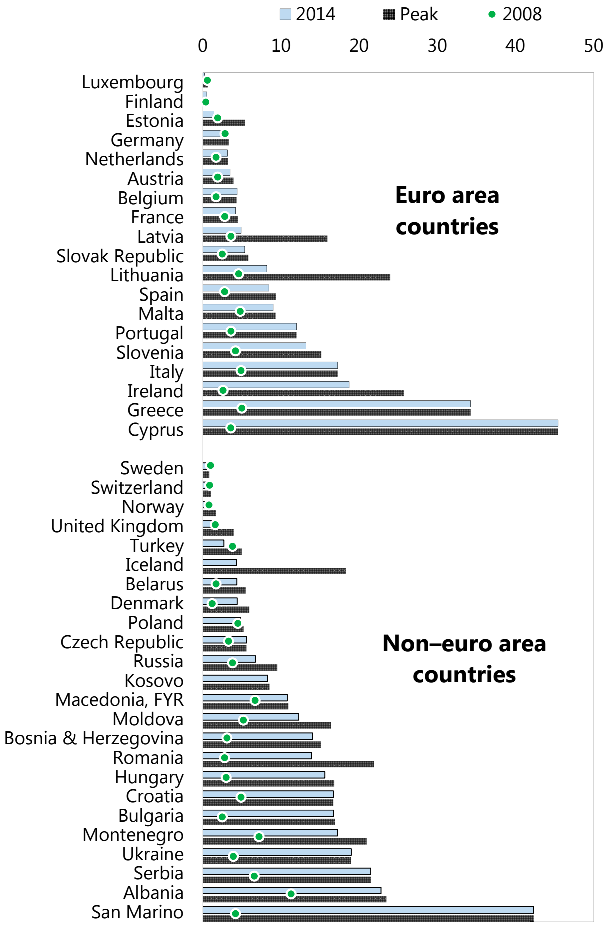
cross-country data coverage, they are not strictly comparable across economies due to differences in regulatory and supervisory practices.

[3] NPE refers to the notional amount of impaired on- and off-balance-sheet exposures in terms of risk-weighting without considering the loss-mitigating impact of collateral.

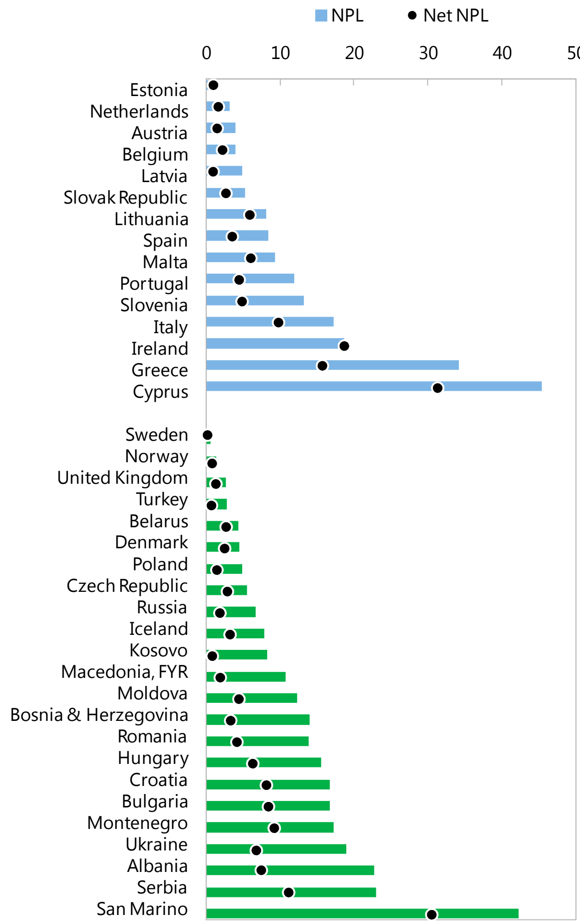
[4] The NPL data in Figure 1 are reported on a consolidated basis for banking groups and include the value of collateral, whereas the NPE data in Figure 2 use locational data on impaired loan exposures. In the case of the latter, the values for the euro area are weighted by total assets and, thus, differ from those reported in the CA (where country values are scaled to risk-weighted assets).

Figure 1. *Europe*: NPLs after the Global Financial Crisis (concluded)

Gross NPLs, 2008–14
(in percent of total loans)



Gross and Net NPLs, 2014
(in percent of total loans)



Sources: FSIs; country authorities; and IMF staff calculations. Note: Net NPLs are defined as gross NPLs less loan loss provisions (reserves).

5. **Because of differences in definitions, comparisons of NPL ratios across countries—or even across banks in the same country—are not straightforward.** The EBA introduced new definitions of NPEs and forbearance in October 2013, but their application beyond the larger euro area banks has been uneven. Reviews of recent practice suggest that a consistent application of new harmonized EBA definitions will likely result in further upward revisions of NPLs and that definitions currently used in countries with high NPLs are not necessarily the most conservative (Background Notes, Section I).[5]

6. **Faced with rising NPLs, European banks have increased loan loss provisions.** As a result, the increase in net NPL ratios has been less dramatic (Figure 1). However, coverage ratios—the ratio

[5] This is more relevant for non–euro area banks, since the ECB's CA already used the new standards. The EBA NPE definition became legally binding in early 2015 and must now be implemented in all EU countries.

of loan loss reserves to gross NPLs—have declined in many cases (see below). This, together with uncertainties surrounding the classification of loans and collateral valuations, has raised concerns about the adequacy of provisioning in many jurisdictions.

7. **Looking across economic sectors, NPL ratios are generally higher in the corporate than in the retail sector.** In the euro area, the corporate debt problem is particularly acute in the southern European economies. In core euro area economies, median NPE ratios for the corporate sector and retail loans are about 8 percent and 2½ percent, respectively, whereas in southern Europe, those ratios are about 45 percent and 10 percent (Figure 2a). While not directly comparable to the euro area, data for non–euro area countries show a similar pattern (Figure 2b).

Figure 2a. *Euro Area*: Gross Nonperforming Exposure (NPE) Ratios by Sector
(asset-weighted average; in percent of total assets, 2014)

	Total	Corporate	Retail	Total *(in percent of GDP)*
Cyprus	39.4	46.3	29.6	48.0
Ireland	32.2	50.2	21.7	40.9
Greece	25.3	23.2	26.9	25.4
Slovenia	20.2	29.9	11.1	14.6
Italy	17.6	21.0	13.7	12.0
Spain	12.2	18.8	6.8	9.1
Latvia	9.7	7.3	12.1	3.7
Lithuania	8.9	9.7	8.1	3.2
Portugal	7.9	11.1	5.7	7.3
Malta	6.3	8.8	4.7	3.0
Luxembourg	5.0	5.3	3.1	7.0
Slovak Republic	5.0	6.0	4.3	4.4
Austria	4.6	5.0	4.0	2.0
Denmark	4.0	5.5	1.9	1.6
Netherlands	3.7	7.7	1.8	5.5
Belgium	3.4	5.1	2.4	2.3
France	3.2	2.9	3.4	2.7
Estonia	2.5	2.3	2.6	1.4
Finland	1.7	1.8	1.6	0.9

Figure 2b. *Non–Euro Area*: Gross Nonperforming Loan (NPL) Ratios by Sector
(in percent of total loans, 2014)

	Total	Corporate	Retail	Total *(in percent of GDP)*
San Marino	42.3			17.9
Albania	22.8	25.9	15.7	13.6
Serbia	21.5	26.7	10.3	8.4
Montenegro	17.2			10.4
Bulgaria	16.7	19.2	17.7	11.9
Croatia	16.7	30.5	12.0	8.1
Hungary	15.6	13.8	18.9	8.7
Bosnia & Herzegovina	14.0			6.6
Romania	13.9	18.7	7.8	4.3
Macedonia	11.3	15.3	5.9	11.3
Iceland	7.9	7.2	10.1	147.0

Sources: EBA, ECB Comprehensive Assessment; SNL, European Central Bank 2014 Comprehensive Assessment database; and IMF staff calculations.
Note: Red = top 25 percent of distribution; green = bottom 10 percent of distribution; and light green, yellow, and light red = remainder of the distribution. NPEs restricted to local exposures only. For non–euro area countries, Figure 2b presents NPLs, as the NPE data are not consistently available for countries that were not included in the ECB's Comprehensive Assessment.

WHAT ARE THE MACRO-FINANCIAL IMPLICATIONS OF HIGH NPLS?

A. NPLs and bank lending

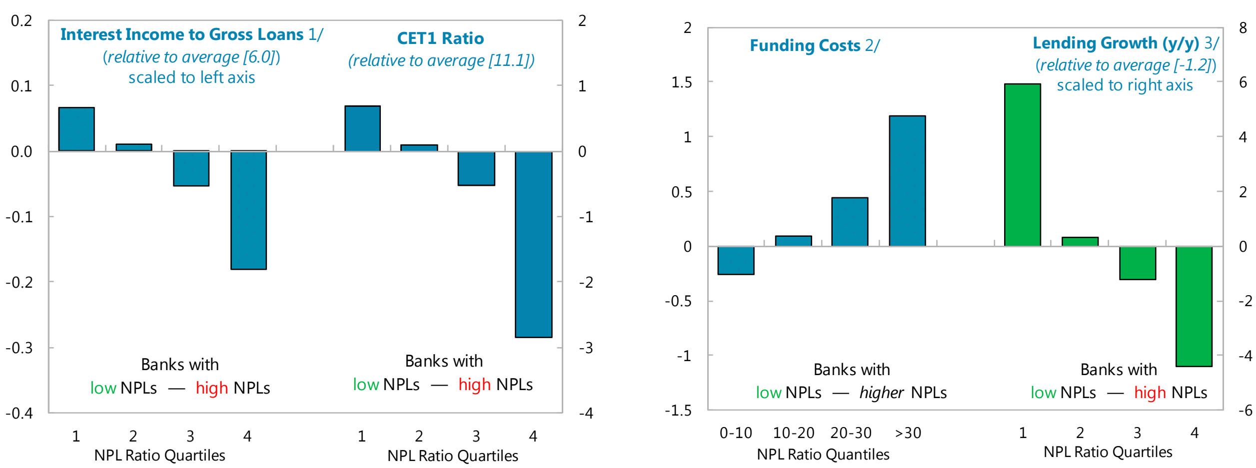
8. **NPLs influence bank lending through three interrelated key channels—profitability, capital, and funding.** Bank profitability suffers because high NPLs require banks to raise provisions, which lowers net income, while NPLs carried on banks' books do not usually generate income streams comparable to performing assets. NPLs, net of provisions, may also tie up substantial amounts of capital due to higher risk weights on impaired assets. And a deteriorating balance sheet

raises a bank's funding costs because of lower expected revenue streams and, hence, heightened risk perceptions on the part of investors. Together, these factors result in some combination of higher lending rates, reduced lending volumes, and increased risk aversion.

9. **Banks that have weaker balance sheets tend to lend less.** Data for euro area banks over the past five years confirm that banks with higher NPLs tend to be less profitable, have relatively weaker capital buffers, and face higher funding costs (Figure 3). They also tend to lend less. An empirical analysis using a panel regression approach, which controls for local macroeconomic conditions, generates similar findings for a sample of CESEE banks (Background Notes, Section II).[6] A growing literature on the macro-financial effects of NPLs finds a robust relation between higher NPLs and weaker credit and GDP growth, with causality going both ways (see Background Notes, Section III, for a review of recent studies). Banks' reduced lending capacity undermines the growth prospects of viable firms, and it is also likely to disproportionately affect SMEs that are more dependent on bank financing. This is of particular concern because in many European countries with high NPL ratios, SMEs account for significant shares of total output and employment. In general, given the dominance of bank lending in corporate sector finance in Europe, high NPLs also impair monetary transmission, as credit supply remains heavily influenced by the lending behavior of banks.

Figure 3. *Euro Area*: Implications of High NPLs for Bank Performance

(percent)



Sources: Bloomberg L.P.; European Banking Authority; SNL Financial; Amadeus database; national central banks; Haver Analytics; Bankscope; and IMF staff calculations. CET1= common equity tier 1 capital ratio.
1/ The graph shows the annual interest income to gross loans, for over 100 euro area banks, relative to the annual average for banks with the *same nationality*, over the period 2009–13.
2/ The graph shows the average funding cost for each bank, which was defined as [interest expenses/(financial liabilities-retail deposits)]-sovereign bond yield (5-year average).
3/ The graph shows annualized lending growth relative to average lending growth in the *same country*, using data from the European Banking Authority for a sample of more than 60 banks over the period 2010–13. Outliers have been excluded, based on extreme values for lending growth, NPLs, and interest margins.

[6] CESEE bank data are particularly well suited to exploring the relationship between local macroeconomic conditions and local lending, due to the relatively low prevalence of cross-border operations (unlike, for example, euro area banks).

10. **Staff analysis suggests that NPL reduction could free up a sizable amount of loanable funds** (Figure 4). As an illustrative example, consider what would happen if NPLs for a representative sample of European banks were to be sold off under different pricing assumptions:

- *NPLs sold at their net book value* (that is, the value at which the loan is booked minus provisioning). Following the sale, the amount of capital that would be freed up (assuming that NPL levels are reduced to their historical average of 3–4 percent) could be as much as €54 billion, or 0.5 percent of total GDP of the countries in the sample at end-2014.[7] This freed-up capital could then support new lending of up to €553 billion (5.3 percent of GDP), assuming that the capital adequacy ratio remains at 16 percent. Due to the uneven distribution of NPLs and their capital intensity (that is, their average level of credit risk weights), the increase in capital would vary significantly across countries, with Portugal, Italy, Spain, and Ireland as well as Bulgaria, Croatia, and, to a lesser extent, Hungary and Romania benefiting the most.[8]

- *NPLs sold at a uniform haircut of 5 percent on net book values.* Under this assumption, the freed-up capital would be only €24 billion, amounting to 0.2 percent of the combined GDP, and a corresponding new lending capacity of up to €247 billion (2.4 percent of GDP).

- *With larger haircuts, the capital "relief" could be negative in some cases*. In general, the haircut required on the net book value of distressed assets is likely to be influenced by several factors including the effectiveness of the debt enforcement and insolvency regime (with larger haircuts required the longer the average time to foreclosure) and the rate of return demanded by distressed debt investors (see Background Notes, Section V, for a description of such an exercise). This underscores the importance of structural reforms to reduce the cost of NPL resolution (discussed below), without which the haircuts on NPL sales may outweigh the potential benefit from capital relief.

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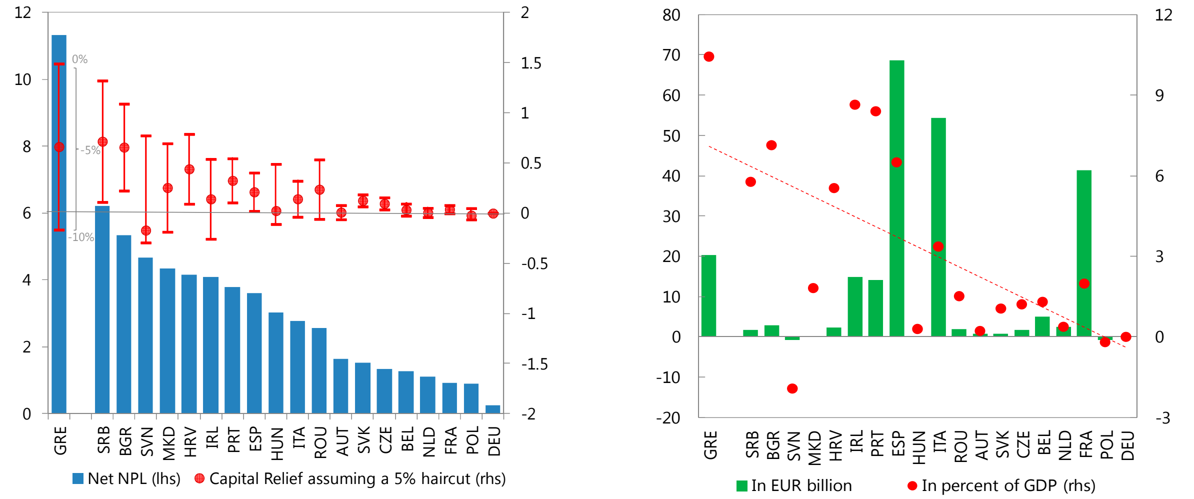
[7] By construction, fully provisioned loans are simply written off, since the net book value of a fully provisioned loan is zero. Hence, capital relief would be generated only for partially provisioned NPLs. This example therefore abstracts from benefits that may accrue to banks writing off fully provisioned NPLs (including any recoveries, potentially lower funding costs due to a reduction in gross NPLs, as well as a reduction in certain types of collateral exposure). It also abstracts from possible benefits accruing to the corporate sector from related debt reduction or debt restructuring.

[8] The impact of NPL reduction on lending could be lower than in our stylized exercise if banks (1) face larger haircuts on NPL sales, as is likely in several countries; (2) do not use all of their freed-up capital for new lending (which also depends on demand for loans); and (3) do not keep their capital buffers unchanged.

Figure 4. Potential Capital Relief and New Lending from NPL Disposal

***Europe*: Net NPLs and Capital Relief from NPL Reduction** *(2014, percent of total assets)*

***Europe*: New Lending Capacity from NPL Reduction** *(2014, uniform 5% haircut)*



Sources: EBA; ECB; Haver Analytics; national central banks; and IMF staff calculations. Calculations are based on bank-by-bank data from the EBA Transparency Exercise (2013). No capital relief is assumed for Germany, since net NPLs are below their historical average.
Note: The sample comprises 22 European countries (14 euro area, six non-euro EU, and two non-EU countries). Results for Cyprus are not shown for formatting reasons. The whiskers indicate the results for capital relief for a +/–5 percentage point deviation from the 5 percent haircut assumption.

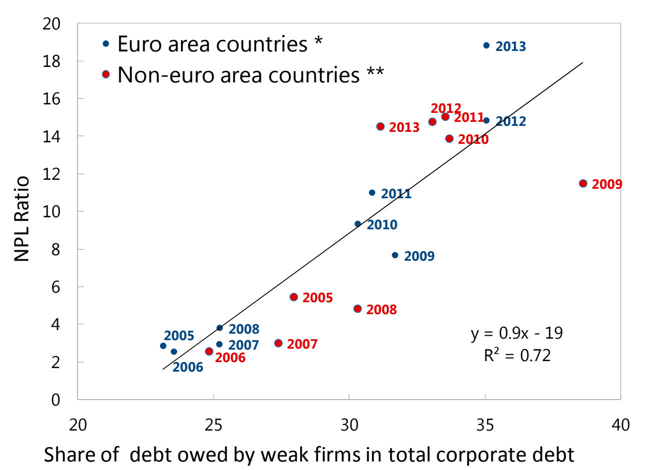
B. NPLs and corporate debt overhang

11. **Persistent NPLs are linked to unresolved private debt overhangs.** On average, the corporate NPL ratio and the level of corporate debt overhang are positively correlated (Figure 5). A closer look at individual countries suggests that improvements in NPL ratios may lag improvements in corporate balance sheets.[9] An examination of corporate NPL ratios together with other debt metrics such as leverage or debt servicing capacity indicates that European countries with high NPLs fall into two broad groups (Annex):

- *Countries where both NPL ratios and other corporate debt metrics improve steadily* either (1) because growth picks

Figure 5. *Europe*: NPLs and Corporate Debt

(Country-group average; annual data in percent)



Sources: Orbis; IMF's FSI; and IMF staff calculations.
Notes: (*) Cyprus, Greece, Iceland, Italy, Portugal, and Spain; (**) Bulgaria, Croatia, Hungary, Latvia, Lithuania, Serbia, and Slovenia. The x-axis is defined as the sum of debt owed by firms reporting a negative debt-to-EBIT ratio, divided by total debt owed by sample firms in each country and each year.

[9] See also Aiyar and others 2015b and IMF 2013 for country-specific discussions of the relation between debt overhang and NPL levels.

up (for example, on the back of external demand) or (2) because of concerted efforts to clean up banks and repair corporate balance sheets (for example, through debt restructuring). This is the case in Latvia, Lithuania, and Iceland. Slovenia, Hungary, and Bulgaria also exhibit some flattening in NPL ratios and some progress in corporate balance sheet repair in recent years; and

- *Countries where NPL ratios continue to rise* and other corporate debt metrics either (1) improve, as in Ireland, Portugal, Spain and Croatia, with rising NPL ratios reflecting delayed recognition of impaired loans or slow NPL write-offs or disposals;[10] or (2) remain flat or deteriorate, as in Italy, Greece, Serbia, and Cyprus, suggesting slow or no progress in corporate and bank balance sheet repair.

12. **Corporate debt overhangs are associated with weaker investment and delayed recoveries.** Based on aggregate firm-level data for euro area countries with high borrowing spreads in 2000–11, Goretti and Souto (2013) show that there is a negative effect of a debt overhang on firm investment, with asymmetric effects beyond a certain threshold (a debt-to-equity ratio of 125 percent). Further analysis using firm-level data shows that firms' employment and investment decisions in response to positive or negative shocks depend on their level of indebtedness. For instance, high-leverage firms increase investment by less than low-leverage firms in response to a positive sales shock (Background Notes, Section IV).

13. **Mutually reinforcing feedback loops exist between bank NPLs and excessive corporate debt.** Overextended companies have little incentive to invest because any return has to be allocated to service their debt. This also implies that their demand for credit is weak, which further weighs on banks' profitability and makes it more difficult for them to dispose of impaired assets. Thus, when NPLs are large and persistent, they are unlikely to be worked off through a normal cyclical economic recovery. Concerted efforts are therefore needed to address both NPLs and private sector debt overhang to ensure that a large stock of distressed debt does not hold back growth.

WHAT ARE THE OBSTACLES TO NPL RESOLUTION?

14. **The past seven years of experience in dealing with NPLs in Europe have yielded mixed results.** Persistently high NPLs are, in part, explained by the weak economic recovery. But some of the persistence is due to structural obstacles, such as deficiencies in supervisory and legal frameworks and lack of developed distressed debt markets. Because these obstacles are interlinked, a comprehensive approach to remedy the situation is necessary.

[10] In the case of Ireland, the blue chip corporate sector is dominated by multinational corporations that tend to inflate the overall corporate sector debt statistics and NPLs. In some cases (for example, in Ireland after 2013), improving NPL ratios also reflect policy actions including public support for moving NPLs off bank balance sheets.

15. **Results from a survey on the recent experience of European countries with high NPLs reveal some common themes on structural obstacles to NPL resolution.** The focus is on those countries where the aggregate NPL ratio during 2008–14 exceeded 10 percent. The analysis is based on surveys, including the one that will henceforth be referred to as the *IMF survey*, as well as other studies (see Background Notes, Section VI, for details). The *IMF survey* reflects the views of the country authorities ("country survey") as well as banks operating in these countries ("bank survey").[11] In the survey, institutional obstacles were grouped into five broad areas relating to (1) the supervisory framework, (2) the legal system, (3) distressed debt markets, (4) informational shortcomings, and (5) the tax regime.

Figure 6. IMF Survey-Based Scores on Obstacles to NPL Resolution, by Country and Area

Institutional Obstacles Scores

Countries	Information	Supervisory framework	Tax regime	Legal framework	Distressed debt market	Composite score
EA	2.6	2.5	3.0	3.0	3.0	2.8
NEA	2.0	2.3	1.6	2.5	3.0	2.3
NEA	1.8	2.0	2.8	2.1	2.7	2.3
EA	2.4	1.8	2.0	2.4	2.7	2.3
NEA	1.7	2.3	2.0	2.0	3.0	2.2
NEA	1.8	1.8	2.0	2.3	3.0	2.2
NEA	1.8	1.8	2.0	2.1	3.0	2.1
NEA	2.0	1.5	1.8	3.0	2.0	2.1
NEA	1.3	1.5	2.0	2.0	3.0	2.0
EA	2.2	2.0	1.0	2.5	2.0	1.9
NEA	1.8	1.3	2.0	2.0	2.5	1.9
NEA	1.8	1.5	2.3	2.0	2.0	1.9
EA	1.4	1.8	1.0	2.3	3.0	1.9
NEA	2.0	2.0	1.2	1.7	2.0	1.8
EA	1.8	2.0	1.3	1.4	2.0	1.7
NEA	1.8	1.5	2.0	1.7	1.0	1.6
EA	1.8	1.5	2.0	1.7	1.0	1.6
EA	1.0	1.3	2.0	2.0	1.0	1.5
EA	1.2	2.0	1.0	1.0	2.0	1.4
EA	1.0	1.0	1.0	1.0	1.0	1.0
Avg	**1.8**	**1.8**	**1.8**	**2.0**	**2.2**	

Source: IMF surveys of country authorities and banks.
Notes: EA = euro area country; NEA = non–euro area country. "Country survey" refers to the survey of country authorities and "bank survey" refers to the survey of banking groups with operation in the countries included in the country survey; 3 = high degree of concern, 2 = medium degree of concern; 1 = no concern; "gray" =unknown or missing responses. The scores shown in the figure are Max (country, bank), that is, max score from country and bank survey. For each country, composite score is a simple average of obstacle scores in each of the five areas (information, supervisory framework, tax regime, legal framework, and distressed debt market). See Background Notes, Section VI, for details.

16. **What are the broad takeaways from the *IMF survey*?**

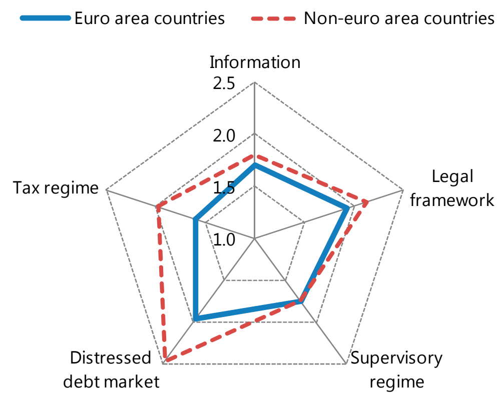
- *Relative severity of different types of obstacles*: Deficiencies in the legal framework and underdeveloped distressed debt markets are, on average, seen as the most severe obstacles (Figure 6). That said, the obstacle scores in the three other areas—information, supervision, and taxation—are not significantly lower. Indeed, different types of obstacles are interlinked, with difficulties in one area compounding challenges in other areas. Figure 6 shows that countries that have relatively high obstacle scores in one of the areas (for example, information) also tend to have relatively high scores in other areas (for example, supervision or distressed debt market).

[11] The "country survey" was completed by 19 countries (Albania, Bosnia and Herzegovina, Croatia, Cyprus, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Macedonia, Montenegro, Portugal, Romania, San Marino, Serbia, Slovenia, and Spain). In the case of Bosnia and Herzegovina, separate responses were provided by the two jurisdictions. The "bank survey" was completed by 10 banks (Alpha Bank, Intesa, NBG, Piraeus, Pro Credit, Raiffeisen, Societe Generale, Unicredit, Eurobank, and Erste Group). Both surveys were completed by June 2015. The country names are not shown at the request of the country authorities. See Background Notes, Section VI, for details.

As one would expect, greater severity of structural obstacles tends to be associated with worse NPL outcomes (Figure 8).

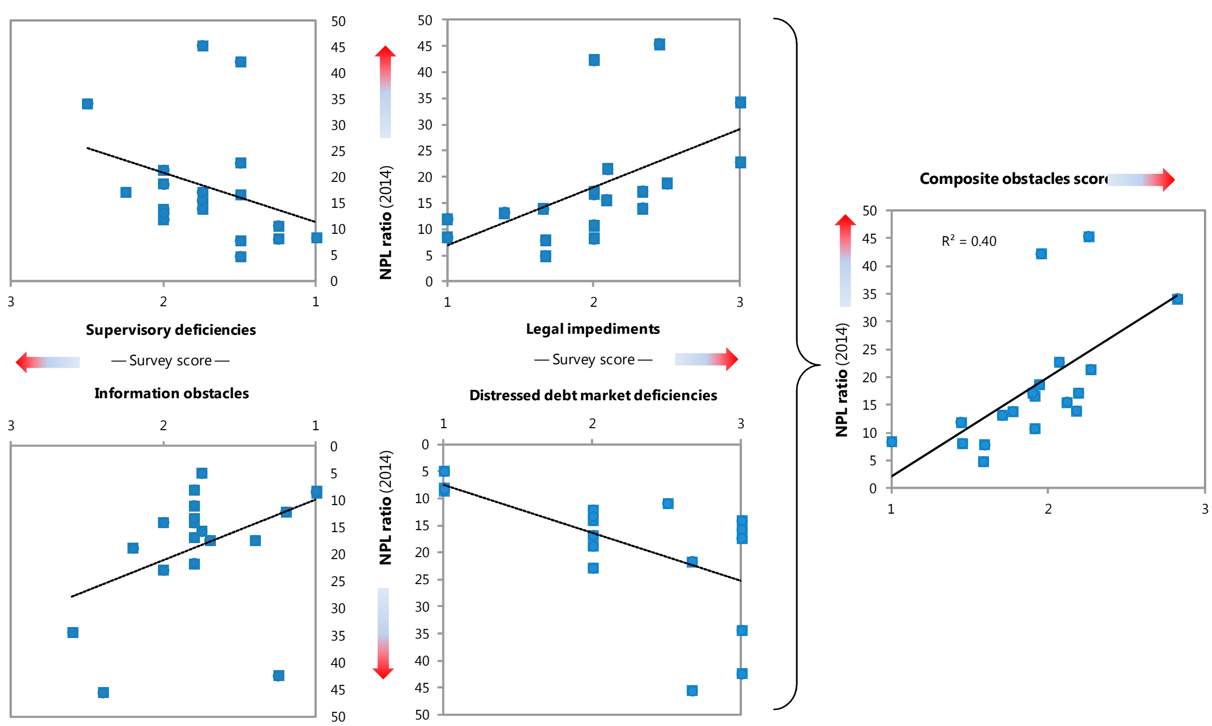
- *Euro area vs. non–euro area countries*: On average, the perceived severity of structural obstacles is lower for the euro area than for non–euro area countries. In the areas of distressed debt markets, the tax regime, and the legal framework, the non–euro area countries appear to be facing greater challenges than euro area countries (Figure 7).

Figure 7. IMF Survey-Based Scores on Obstacles to NPL Resolution: Euro Area vs. Non–Euro Area



Source: IMF surveys of country authorities and banks.
Note: The chart shows average values of composite obstacle scores for euro area and non–euro area sample countries. For each country, the composite score is a simple average of the five scores shown in Figure 6.

Figure 8. Survey-Based Country Obstacles Score vs. NPL Outcomes



Source: IMF surveys of country authorities and banks; staff calculations.
Notes: The survey-based country obstacles index takes values between 1 and 3 (3 = high degree of concern about institutional obstacles to NPL resolution; 2 = medium degree of concern; 1 = no concern). The survey-based obstacles score shown in the charts is Max (country, bank) (see Table A1 for details). For each country, the composite score is a simple average of five scores shown in Figure 6.

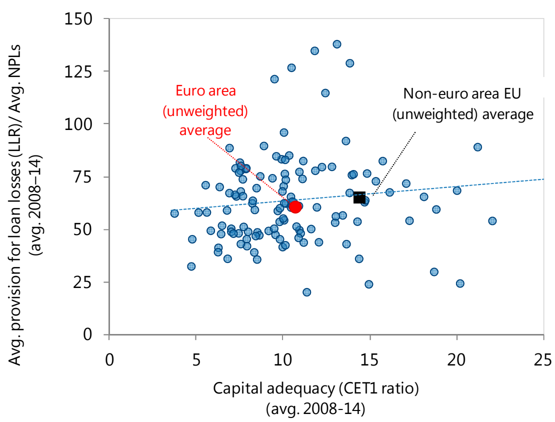
A. Prudential supervision

17. **Accounting standards, as implemented across European countries, weaken the incentives to resolve NPLs.** First, the incurred-loss approach to loan provisioning under International Financial Reporting Standards (IFRS) is backward-looking (this is expected to be addressed when IFRS 9 becomes effective in 2018)[12] and leaves much room for judgment, which may result in insufficient provisions. Second, while IFRS explicitly permits loan write-downs for impairment losses, it does not provide details on write-off modalities, which are left to the supervisors. Third, IFRS allows for the accrual of interest income from NPLs, which tends to inflate profitability, and lowers the incentives to dispose of NPLs (Background Notes, Section VII). And fourth, while collateral is taken into account in impairment loss recognition, there is no guidance on its valuation. Remedying the disincentives and ambiguities listed above does not require a change in the accounting standard, but can be done through stricter implementation guidelines and a more rigorous regulatory overlay.[13]

18. **Weak capital buffers and difficulties in realizing collateral increase banks' reluctance to address NPLs.** Low profitability and thin capital buffers constrain banks' ability to increase provisions and discourage the timely recognition of credit losses. The high level of NPLs relative to banks' going concern loss absorbing capacity (that is, common equity plus reserves) also constrains banks' ability to accept further credit losses (Figure 9).

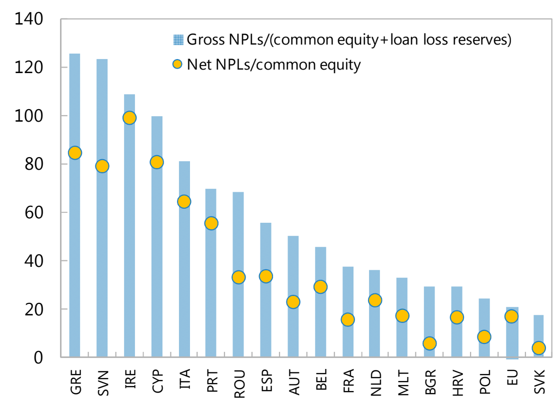
Figure 9. Capitalization and Provisioning

***Europe*: Bank Provisions and Capitalization**
(percent, 2008–14)



Sources: SNL and IMF staff calculations. Note: Observations with CET1/RWA>25% and LLR/ NPL>150% were excluded from the sample.

***Europe*: "Texas Ratio"**
(NPL to Common Equity and Loan Loss Reserves)
(weighted by country bank assets, avg. 2010–14)



Sources: SNL, EBA, and IMF staff calculations. Note: values are weighted by total assets of banks within each country.

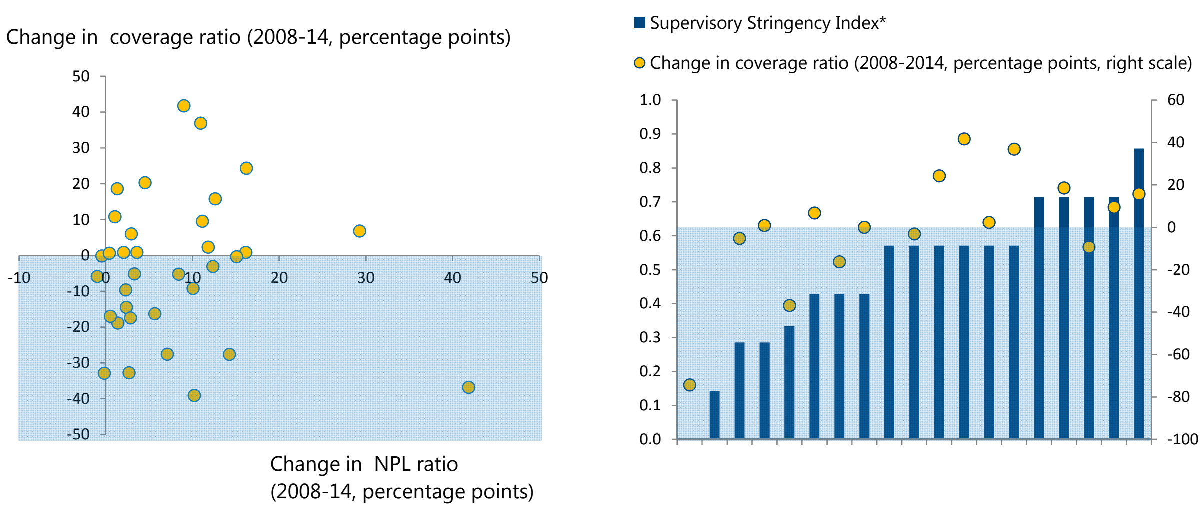
[12] IFRS 9 comprises a new principles-based approach for the valuation of financial assets and financial liabilities, including a single, forward-looking "expected loss" impairment model.

[13] The United States provides an example of regulatory overlay to accounting standards. The U.S. GAAP is comparable to IFRS in that both apply the incurred loss approach to provisioning. But two key regulatory requirements are imposed in the United States: banks must (1) suspend interest income on NPLs once the loan is 90 days past due; and (2) write down the loan balance on the bank's statements to the recoverable collateral value after six months. See Background Notes, Section VIII, for further details.

19. **According to the *IMF survey*, collateral-related issues are a greater concern than capital buffers.** While bank capital buffers are deemed a medium concern in about half the countries surveyed, collateral-related issues elicit either medium or high concern in most of them. These rankings partly reflect thin real estate markets (as the most common type of collateral is real estate) and difficulties in estimating collateral recovery values given weak debt enforcement frameworks. With only a few exceptions, collateral valuations are reportedly based on market prices, although in many countries, deep and liquid markets for foreclosed properties are lacking.

20. **Supervisory efforts aimed at improving bank capitalization and provisioning can influence the pace of NPL resolution and write-offs.** More robust supervision, including to ensure prudent provisioning and strong capital buffers, can enhance banks' incentives to recognize losses. For example, the robustness of coverage ratios—ratios of provisions to NPLs—appears to be linked to the stringency of supervision in the *IMF survey* responses (Figure 10).

Figure 10. Supervisory Stringency and Coverage Ratios



Sources: *IMF survey; FSI database and IMF staff calculations.*
Note: The supervisory stringency index is an average of responses to the following questions, with yes = 1 and no = 0: (1) "Have supervisors undertaken a thematic review of banks' NPL management capacity during 2012–14?"; (2) "Have supervisors issued formal guidelines to banks on NPL management practices?"; (3) "Does the on-site supervision team include specialists/advisors on NPLs?"; (4) "Have supervisors increased capital charges for NPLs?"; (5) "Have supervisors imposed time limits on how long NPLs can be carried on banks' balance sheets?"; (6) "Have supervisors incentivized banks to reduce reliance on collateral through increased provisioning?"; and (7) "Have supervisors incentivized banks to reduce reliance on collateral through assessment of valuation practices?"

21. **Many European countries have begun to allocate more supervisory attention to impaired assets, but time-bound operational targets for NPL reduction remain rare.** In most countries, banks have been subject to granular asset quality reviews over the past three years to ensure capital adequacy and sufficient provisioning. In three-quarters of surveyed countries, supervisors pushed banks to reduce reliance on collateral through assessment of valuation practices, and in about half of surveyed countries, through increased provisioning. According to the *IMF survey*, most banks are expected to have NPL action plans, but in many cases, these plans lack credibility as banks are not required to have *operational targets for NPL reductions* or *time limits* on how long they can carry NPLs on their balance sheets (Background Notes, Table VI.3). Only a few

countries (Albania, Montenegro, San Marino, Slovenia, and Romania) have reportedly imposed such time limits.[14]

22. **Despite formal supervisory guidelines on NPL management, many European banks lack the expertise, capacity, or tools to deal with NPLs on a large scale.** Given the severity of the recent downturn compared with previous recessions, banks may not have been equipped to deal with the observed surge of bad loans. Banks found that they lacked the experience, resources, and restructuring tools for large-scale loan restructurings.[15] They also lacked specialized skills in real estate servicing and corporate turnarounds, which may be necessary to work out certain types of bad loans. According to the *IMF survey,* more than half of surveyed countries have some concerns about banks' capacity for NPL management, even though most banks tend to have dedicated NPL workout units. During 2012–14, supervisors undertook thematic reviews of banks' NPL management capacity in most surveyed countries and issued formal guidelines on NPL management practices in over half of surveyed countries. While banks are able, in principle, to outsource NPL management to third parties in about 70 percent of surveyed countries, it is not clear how often this is done in practice.

B. Legal obstacles

23. **Effective insolvency regimes and debt enforcement are essential for debt resolution.** The insolvency regime should ideally provide mechanisms for creditors to realize their claims in a predictable, speedy, and transparent manner, while protecting and maximizing value for all involved parties. An effective insolvency regime comprises two essential elements: *first*, an adequate resolution toolkit ranging from rehabilitation (for going-concern cases) to effective liquidation (for nonviable cases); and *second*, an effective institutional setting, as slow and inefficient court proceedings can render ineffective even a good insolvency regime. The ability to enforce claims (in particular, through foreclosure on real estate collateral) is essential to efficient workouts as it enables creditors to enforce their claims against debtors in a predictable, equitable, and transparent manner.

24. **Many European countries have recently overhauled or upgraded their insolvency regimes in line with international best practices, but reforms have been uneven** (see Background Notes, Sections X and XI). A few countries have decided to significantly overhaul their entire insolvency regime (Cyprus, Latvia, Poland, and Romania); others have updated it by

[14] In Romania, for example, supervisors adopted a number of measures in 2014 that contributed to a significant decline in the NPL ratio (from 22.5 percent in February 2014 to 13.5 percent in April 2015). In particular, supervisors (1) sent letters to credit institutions recommending the write-off of NPLs fully covered by IFRS provisions; (2) recommended full provisioning of all loans for which repayment of principal or interest, or both, was overdue by more than 360 days and no legal procedures were taken against the debtors; and (3) required coverage of at least 90 percent of the gross exposure to debtors in insolvency for which the recovery value was small.

[15] Some supervisory authorities (for example, Cyprus, Greece, and Ireland) hired independent workout specialists to assess banks' NPL management capacity and found that banks lacked expertise and loan restructuring tools, were unable to properly assess affordability, and were hindered by poor interbank collaboration. See Section IX of the Background Notes for further discussion of effective arrears management in banks.

simplifying the insolvency process (Greece, Italy, Latvia, Portugal, Slovenia, and Spain), or introducing enhanced features, such as debt-to-equity swaps or other debt-restructuring mechanisms (Croatia, Germany, Latvia, Slovenia, and Spain), pre-insolvency procedures (Croatia, Germany, France, Romania, Slovenia, and Portugal), or fast-track *prepack insolvency procedures* (Croatia, Greece, Italy, Latvia, Portugal, and Serbia).[16] A number of countries have enhanced *out-of-court frameworks,* either with "hybrid" features (Italy, Portugal, and Spain) or without (Latvia, Portugal, Romania, Slovenia, and Serbia).[17] Finally, some countries have decided to entirely overhaul their personal insolvency regimes (Cyprus and Ireland) or adopt new ones (Estonia, Greece, Hungary, Italy, Latvia, Lithuania, Poland, Romania, and Spain), with discharge periods ranging between one and five years.

25. **Insolvency regimes for corporations are generally better developed than for households, but deficiencies remain in both areas.** While recent changes have improved the prospects for harmonization across European countries, there remains much ground to cover.[18]

- *Corporate insolvency*: All European countries have developed corporate insolvency frameworks, but countries still need to address numerous issues. About half of surveyed countries have a prepack (fast-track resolution or rehabilitation) process or an out-of-court mechanism, though in some cases this is *de facto* not operational (see Background Notes, Table VI.2). Several problems remain, notably (1) lack of simplified and cost-effective frameworks for SMEs, which are the largest and most vulnerable corporate segment, in about half of all surveyed countries; and (2) obstacles to limiting shareholders' decisions or replacing management in debt restructuring procedures in about 60 percent of surveyed euro area countries.

- *Household insolvency*: Personal insolvency regimes are absent in over one-third of surveyed countries. The problem is most acute in non–euro area countries, where most countries reported that either the framework does not exist or information is not available.[19] About one-third of all respondents do not have an out-of-court settlement mechanism or mediation for personal insolvency, and no evidence shows that these mechanisms are actively used in the countries that have them.

[16] "Prepacks" refer to procedures under which the court expeditiously approves a debt restructuring plan negotiated between the debtor and its creditors in a consensual manner before the initiation of an insolvency proceeding. This technique draws on a significant advantage of court-approved restructuring plans—the ability to make the plan binding on dissenting creditors—while leveraging a speedy out-of-court negotiation process.

[17] "Hybrid" procedures are those for which the involvement of the judiciary or other authorities is an integral part of the procedure, but those procedures are less intensive than in formal insolvency proceedings.

[18] The current *European Insolvency Regulation* addresses cross-border insolvency and creates mechanisms for the mutual recognition of insolvency processes and cooperation among courts and insolvency representatives in different member states. The EC has recently taken a step toward establishing common general principles for the national regimes of EU countries through a nonbinding *Recommendation* for a narrow area of insolvency law, namely, pre-insolvency regimes and out-of-court restructuring (European Commission 2014a and 2014b).

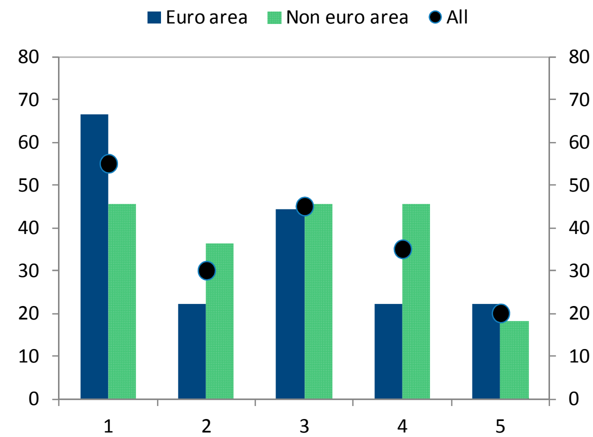
[19] Hungary, Montenegro and Romania adopted personal insolvency regimes after the survey was completed.

26. **Perhaps an even more serious shortcoming is the slow and inconsistent *implementation* of insolvency laws.** Over 60 percent of non–euro area countries do not set strict *time limits* for the insolvency process, contributing to lengthy proceedings. There is also the perception that time limits to the extent that they do exist are sometimes not respected by the courts. And in about 60 percent of euro area countries, the remuneration of insolvency practitioners is not linked to the outcome of the liquidation, which weakens incentives for faster resolution. In some cases, there are no specialized judges to deal with insolvency issues, while in a few other cases, court fees for household insolvency cases are too high (Background Notes, Table VI.2).

27. **Countries used many of the standard restructuring tools during 2012–14, but much room for improvement remains.** Interest-only loans were the most prevalent restructuring tool, especially in the euro area (Figure 11). Banks in nearly half of surveyed countries restructured loans by warehousing a portion of debt, thereby reducing repayments. Other tools were used less often, with only about a third of surveyed countries employing debt-for-equity swaps and less than 40 percent using performance-based write-offs (the latter could be partly due to tax disincentives—see below).

Figure 11. Use of Restructuring Tools, 2012–14

(percentage of respondents within each group)



(1) interest-only loans
(2) debt-for-equity swaps
(3) reducing repayments by warehousing a portion of debt
(4) performance-based write-off of a portion of debt
(5) other tools
Source: *IMF survey.*

28. **Debt enforcement and foreclosure vary considerably across countries in speed and rate of recovery.** Data on residential mortgage enforcement is patchy, but several countries reported that the enforcement length is longer than a year (and goes up to five years). For instance, the average length of foreclosure proceedings in Italy is almost five years, compared with less than one year in Germany and Spain. Weak debt enforcement raises the legal cost of debt restructuring and hampers banks' ability to seize loan collateral, reducing the expected recovery rate on delinquent loans (Figure 12). As shown in Figure 12, NPLs tend to be lower in countries where foreclosure periods are shorter.[20] The ability to enforce credit claims (in particular through foreclosure) is essential to efficient debt workouts as it enables creditors to enforce their claims as a going or gone concern in a predictable, equitable, and transparent manner.

29. **The efficiency of the institutional framework (particularly judicial systems) matters as well.** In particular, the degree of concern about the judicial system appears to be higher than about insolvency frameworks (Background Notes, Section VI). The judicial system was viewed as posing

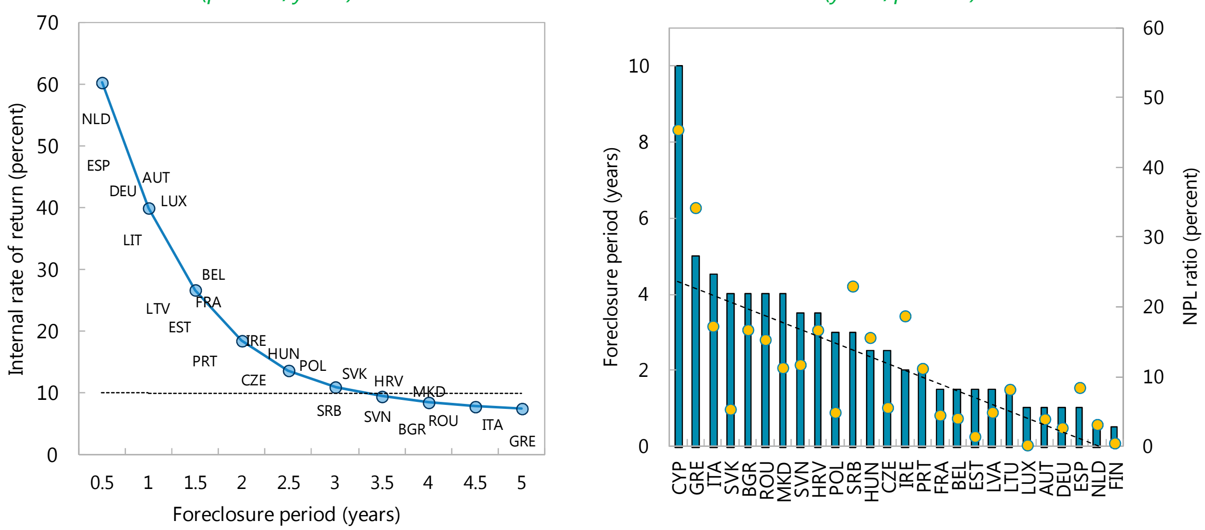
[20] Further details on the impact of foreclosure periods and the expected return of distressed investors on NPL disposal are discussed in Section V of the Background Notes.

either a medium or a high degree of concern for debt resolution in nearly two-thirds of surveyed countries. This underscores the need for professionals, such as insolvency practitioners, to be adequately supervised and monitored and be subject to a fee structure that incentivizes rapid rehabilitation or liquidation. Some European countries (Cyprus, France, Ireland, Italy, and Portugal) have recently strengthened their judicial system, including the oversight and supervision of insolvency practitioners.[21]

Figure 12. Insolvency Regimes and Recovery Rates

***Europe*: Internal Rate of Return (IRR) on Investment in Distressed Assets and Time to Foreclosure**
(percent/years)

***Europe*: Average Time to Foreclosure and Nonperforming Loans (2014)**
(years/percent)



Sources: ECB; World Bank Doing Business Survey (2014); RBS Credit Strategy; and IMF staff calculations

C. Distressed debt markets

30. **The European market for distressed bank debt is relatively small, especially compared with the size of the outstanding stock of NPLs.** The distressed debt market comprises a mixture of outright sales to nonbank participants as well as joint ventures between banks, specialist firms, and investors. In terms of sales, the distressed debt market in Europe is underdeveloped and focuses mainly on commercial real estate and consumer loans. At end-2013, the market value of distressed debt transactions in Europe was only €64 billion compared with $469 billion in the United States, despite a stock of NPLs several times bigger than the United States. In terms of joint ventures with

[21] Ireland and Cyprus established and Portugal strengthened the supervisory and monitoring frameworks for insolvency practitioners. Italy and Portugal have undergone significant reforms in the organization of their judicial systems (such as increasing specialization, flexibility, and accountability).

NPL workout specialists and distressed debt investors, some have taken place, but fall far below what was observed in the United States.[22]

31. **Developing a liquid market for NPLs is crucial to provide an outlet for banks to dispose of their distressed assets and to boost recovery values.** By allowing banks to move bad loans off their balance sheets, distressed debt markets help reduce the burden on banks and can boost loan recovery values by providing a more cost-effective alternative to internal NPL management, especially for smaller banks.[23] Indeed, most *IMF survey* respondents considered deficiencies in distressed debt or NPL markets to be an important obstacle to NPL resolution.

32. **Distressed debt markets in Europe suffer from various structural shortcomings.** The *IMF survey* reveals that there are relatively few explicit restrictions on sales of NPLs—most countries allow third-party (including foreign) banks, as well as institutional investors, to buy NPLs from local banks.[24] Banks are generally allowed to set up private asset management companies. Yet, distressed debt markets across Europe remain shallow or nonexistent. The survey suggests a few explanations: (1) incomplete credit information on borrowers; (2) lack of licensing and regulatory regimes to enable nonbanks to own and manage NPLs; (3) overvalued collateral and lack of liquid real estate markets; (4) low recovery values, partly related to lengthy court procedures; and (5) inadequate provisioning of NPLs. These factors, which are related to the obstacles discussed above, contribute to large pricing gaps between potential buyers and sellers of NPLs. Pricing gaps are indeed frequently cited by banks as the main reason why few distressed debt sales have transpired.

33. **Countries' efforts to promote the development of a market for distressed debt have had mixed results.** Distressed asset disposals took place in about two-thirds of sample countries (over 80 percent if missing responses are excluded). They were generally done via portfolio sales, with transfers to private or public AMCs used much less frequently (Figure 13).

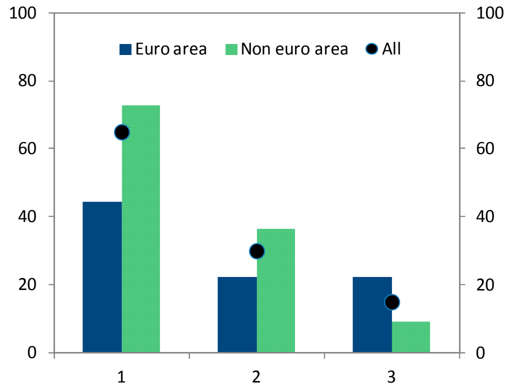
[22] The small size of the distressed debt market in Europe (with most transactions focused on commercial real estate and corporate loans) and faster NPL write-offs or disposals in the United States can be partly explained by the fact that about half of the U.S. states have nonrecourse rules for mortgages (together with strict time-bound rules for writing off NPLs). In nonrecourse lending, a loan (debt) is secured by a pledge of collateral but the borrower is not personally liable (limiting the lender's recovery to the collateral only and creating incentives for lenders to seek a timely resolution of NPLs).

[23] Smaller banks, in particular, may lack specialized expertise and economies of scale or scope in managing NPLs.

[24] In some cases, however, there may be more subtle legal restrictions. For example, in Serbia, a foreign investor cannot directly buy domestic secured NPLs without the written consent of the original debtor; in Greece and Serbia, loan transfers are limited to other banks operating domestically.

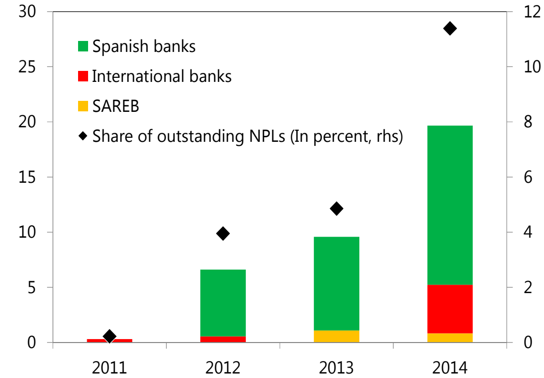
Figure 13. NPL Disposals and the Role of AMCs

Use of NPL disposal mechanisms,* 2012–14
(percentage of respondents within each group)



Source: IMF survey.
Note: (*) The NPL disposal mechanisms include (1) portfolio sales, (2) transfer to private asset management companies, and (3) transfer to public asset management companies

Spain: Sales of Nonperforming Loan Portfolios
(billions EUR)



Sources: PricewaterhouseCoopers; bank reports; and IMF staff estimates.
Note: Shows nominal volumes of publicly announced portfolio sale transactions; does not include private transactions or sales to retail; percent of nonperforming loan stocks as of end of previous year.

34. **Some countries established public AMCs as part of a comprehensive strategy to address banking system problems** (for example, Hungary, Ireland, Latvia, Slovenia, and Spain). In some cases, this was key to jump-starting the distressed debt market. The experience of SAREB in Spain is instructive. SAREB was set up as a centralized vehicle for the purchase of assets from Spanish banks at conservative prices. Its ownership included a 45 percent public sector share, although the majority of shares were held privately.[25] The announcement of the initiative was a trigger for other banks—fearing massive upcoming asset sales—to adjust their asset values and start selling their NPLs. With the market taking off, investors bought servicing platforms and turned from opportunistic to recurring buyers. During 2012–14, the volumes of NPL sales increased steadily (Figure 13).

D. Informational obstacles

35. **Incomplete information can impede effective resolution of distressed debt.** The *IMF survey* collected assessments of (1) public registers, (2) debt counseling services and citizen awareness, (3) quality of information reported by banks to supervisors, and (4) constraints on information sharing among creditors (see Background Notes, Table VI.1).

36. **Information deficiencies or constraints on information sharing are fairly common.** The general public is unable to conduct searches in public asset registers (in about one-third of surveyed countries) and real estate transaction registers (half the sample). And restrictions on sharing individual debtor's information for debt workout purposes are widespread. Furthermore, credit bureaus typically do not include certain information relevant for debt restructuring, that is, on tax

[25] It should be noted that SAREB was set up before the new EU rules took effect that require creditor bail-in in most cases of state aid (see Section V.C).

payments and social security contributions (about 80 percent of surveyed countries) and payments to utility companies (two-thirds of surveyed countries). Credit registers in more than half the sample do not have credit scoring for individuals, and about half do not produce credit scoring for SMEs and larger companies.

37. **Lack of debt counseling is another common problem.** Few countries offer free or subsidized budgeting or legal advice services for households, which is sometimes critical for debtors to become comfortable with creditors' debt restructuring proposals. In over half the surveyed countries, institutions that provide credit management training and advice for SMEs do not exist.

E. Tax and other obstacles

38. **Unfavorable tax treatment can create disincentives for adequate provisioning and loan write-offs.** According to the *IMF survey*, tax disincentives were considered of high or medium concern for NPL resolution in about half of responding countries, with about one-third unable to provide assessments. In some countries, charge-offs and provisions are not eligible (or are subject to caps) as deductions for income tax purposes.

- *Tax deductions for loan loss provisions* are allowed in most cases, but are often subject to a cap. For example, in Italy until recently, the tax deductibility of loan loss provisions was limited to 0.3 percent of outstanding loans—a clear disincentive to provisioning.[26] Further, in over half of non–euro area countries, there is no loss carry-forward mechanism such as *deferred tax assets (DTAs)*.

- *Tax deductions for loan write-offs or for loan principal reductions* are not allowed in about 60 percent of surveyed countries. For example, until the 2013 reforms, the tax treatment in Italy penalized banks that wrote off problem loans more aggressively, allowing tax deductibility for write-offs only in the state of insolvency. Spain recently eliminated taxes on debt-to-equity swaps in a similar move to encourage banks to recognize losses from impaired assets.

- *Tax deductions for collateral sales* below book value are quite rare (only about a quarter of surveyed countries).

39. **Often the privileged role of public creditors in debt restructuring can pose collective action problems.** This is compounded by poor coordination between public and private creditors.

- *Ranking of claims*: Priority, and especially super-priority, of public creditors' claims (such as tax claims) in insolvency and foreclosure processes may discourage banks from restructuring or foreclosing on a distressed debtor. Responses to the *IMF survey* indicate that public sector claims have priority over private secured claims (super-priority) in one-third of surveyed euro area countries and one-fifth of surveyed non–euro area countries, while public sector claims also

[26] A 2013 reform allowed provisions and write-offs to be fully deducted in equal installments over five years, and with a higher tax rate; and in June 2015, this period was further shortened to a year.

have priority over private unsecured claims in about half of the surveyed euro area countries and less than half of surveyed non–euro area countries.[27] In some countries the tax authorities are not required to participate in out-of-court debt restructuring or are effectively granted priority because they cannot be affected by a restructuring process. In Spain, for example, tax authorities are not bound by out-of-court debt restructuring decisions. In Portugal, on the other hand, legal changes in 2011 require tax authorities to participate in out-of-court workouts (although they remain at liberty to walk away from the restructuring).

- *Limits on debt relief by the public sector*: While in many cases public creditors appear to be able to agree to partial debt servicing, in most cases, they cannot provide debt write-off. The latter appears to be the case in 90 percent of surveyed countries in the euro area and over 70 percent of all surveyed countries.

- *Information sharing and coordination between public and private creditors:* In many instances, there is either an informational asymmetry between private and public creditors (since public creditors' records are not accessible or shared with private creditors) or a lack of coordination that arises from the insufficient participation of public creditors in the insolvency process.

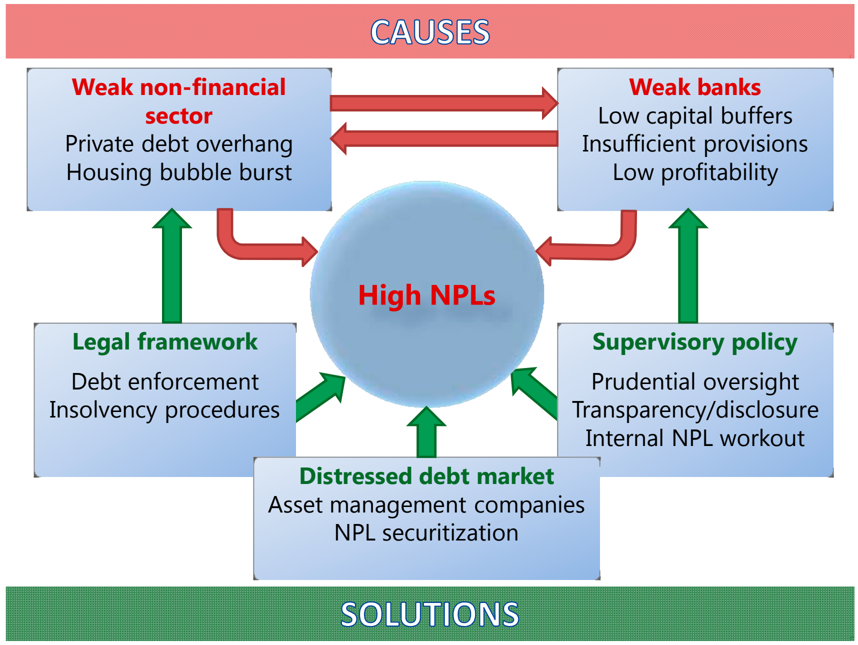
A COMPREHENSIVE NPL RESOLUTION STRATEGY

40. **International experience prior to the global financial crisis as well as recent European experience suggests that a comprehensive strategy is most effective in resolving NPLs** (Hagan and others 2003; Liu and Rosenberg 2013). Such a strategy typically includes three crucial elements: (1) tightened supervisory policies, (2) insolvency reforms, and (3) the development of a distressed debt market. Box 1 provides a brief summary of international experience in these areas.[28] In Europe, those countries that managed to significantly reduce their NPL ratios (by over 5 percentage points from peak to end-2014)—Iceland, Ireland, Latvia, Lithuania, and Romania—had all stepped up supervisory efforts to address NPLs, had taken early and aggressive measures to reform their insolvency frameworks, and, in some cases, had established AMCs. These countries scored below the median on obstacles to NPL resolution (see Figure 6).

41. **A multifaceted strategy for NPL resolution in the European context would combine more robust supervision, institutional reforms to insolvency regimes, and developing markets for distressed debt.** These measures should be supported by changes to the tax regime and reforms to improve access to information. Given the urgency of the NPL problem, the recommended measures should be implemented as soon as possible. Some measures, such as stricter supervision, can be implemented immediately. Others, such as legal reforms and market infrastructure development, will take more time, but the groundwork should begin now.

[27] However, it seems that not all of those surveyed countries legally afford super-priority to public sector claims. It should also be noted that the survey results may reflect the preferential status of certain private claims. For example, labor claims fall under the category of private unsecured claims but have a preferred status over the public sector claims in numerous countries.

[28] For a more extensive treatment see Aiyar and others 2015b.



42. **At the national level, policy reforms should be coordinated among the many stakeholders.** In cases where NPLs exceed a systemic threshold, governments should consider establishing a coordination mechanism, such as a ministerial council. The mandate should be to fully diagnose the obstacles to NPL resolution, set reform priorities, and ensure that all stakeholders are clear on their role in implementation. A coordinated public communications strategy as well as a dedicated project management office would help ensure effective implementation.

A. Supervisory policies

43. **Pursue a conservative application of accounting standards.** Swift loan loss recognition has proved crucial to resolving elevated impaired asset levels in past international experience (Box 1). More robust provisioning, write-offs, and income recognition should be encouraged. In euro area countries (and more, broadly, in EU countries), the SSM and EBA could spearhead this effort, while national regulators will need to take the lead in other jurisdictions.[29] Specific guidance on provisions (following the approaches taken in Ireland and Cyprus) should focus on appropriate impairment triggers, provisioning methodologies for collectively assessed loans, and management judgment and assumptions. This should be accompanied by extensive dialogue between the SSM, national competent authorities (NCAs), and the accounting profession, including on approaches to reinforce implementation of IAS 39. The SSM and EBA should also clarify supervision regarding write-offs and foster consistent practices across EU banks.[30] In particular, a supervisory policy should be introduced that underscores the importance of timely uncollectible loan write-off before having

[29] As a general point, the supervisory recommendations for the SSM in this section should be understood as recommendations for national regulators for countries where the SSM has no supervisory jurisdiction.

[30] In June 2015, the SSM created a joint task force with several NCAs to establish consistent and common supervisory practices for NPL resolution.

exhausted all legal means to collect the debt. Time-bound write-off requirements for uncollectible loans could also be considered where the domestic legal framework allows it. With regard to interest accrual practices, the adoption, for prudential purposes, of a nonaccrual principle for loans past a set delinquency threshold would be critical.

44. **Ensure that banks apply a conservative approach to collateral valuation.** While it is reasonable to take account of collateral in provisioning, a conservative approach should be adopted, reflecting various constraints in valuing, accessing, and disposing of collateral. In particular, the value of collateral should reflect changes in market conditions, the costs of sale, and delays in realizing proceeds. Furthermore, collateral should be periodically valued by reliable and independent third parties and subject to enhanced supervisory scrutiny. In the case of real estate, banks should obtain sound appraisals of the current fair value of the collateral from qualified professionals.

45. **Strengthen capital requirements to encourage asset disposal.** Conservative application of accounting standards should be supplemented by micro- and macroprudential measures, such as time-bound targets for resolving delinquent assets and raising risk weights on impaired assets of a certain vintage (above the current 150 percent, for instance, for banks reporting under the "standardized approach"). Such targets could be initiated by NCAs using Pillar II requirements for macroprudential purposes. The SSM could play a coordinating role among NCAs by encouraging the use of these instruments, while applying such targets as microprudential measures to the large banks under its direct supervision.[31] In some cases, the combination of realistic provisioning, conservative collateral valuation, and stronger valuation may reveal that certain banks are insolvent, in which case regulators should encourage these banks to exit the market.

46. **Enhance prudential oversight.** The SSM and some NCAs have already followed a supervisory review approach to fostering more active resolution of NPLs by placing banks with high NPLs under enhanced monitoring and setting operational targets for these banks to restructure or write off problem loans.[32] The SSM should ensure that NCAs follow a similar approach for smaller banks. Banks with NPLs above a set threshold (for example, 10 percent) should be subject to a more intensive oversight regime to ensure that they conservatively recognize and proactively address asset quality problems. Prudential reporting requirements for NPL portfolios should be significantly enhanced through detailed submissions (on a quarterly or more frequent basis).[33] For banks with high NPLs, the SSM could agree with banks on operational targets for NPL resolution and introduce standardized criteria for identifying nonviable firms for quick liquidation and viable ones for

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[31] The case of Ireland is instructive. From early 2013 through end-2014, the Central Bank of Ireland imposed quantitative targets for the resolution of nonperforming residential mortgage loans. For distressed SME loans, nonpublic supervisory targets were set bank by bank.

[32] According to the *IMF survey*, specific operational targets or time limits on how long banks can carry NPLs on their balance sheets are in place in only a few countries (Section IV).

[33] As adopted in Greece and Ireland, such reporting should include granular details on portfolio segmentation (that is, distribution of days past due for various NPL categories), key performance statistics (that is, cash recoveries, forbearance metrics, and collateral data), legal workout activity statistics, and loan modifications flow data.

restructuring (the "triage approach").[34] For non-EU jurisdictions, similar measures could be envisaged by national authorities where necessary.

47. **Require banks to develop internal NPL management capabilities.** Banks should be encouraged to develop a comprehensive NPL management plan, which determines rules and work practices for NPL resolution, such as (1) removing impaired loans from regular loan servicing and adopting specific tools for early arrears, (2) conducting risk scoring to set case prioritization, and (3) developing a customer charter to cater for hardship and sensitive cases, subject to clearly defined implementation targets (Background Notes, Section IX). A code of conduct could be considered to set minimum standards of customer interaction for target portfolios as adopted in Cyprus (all retail and SME loans), Greece (all retail and commercial loans), and Ireland (mortgages).

48. **Enhance disclosure.** Extended Pillar III reporting of NPLs and granular disclosure by supervisory authorities of NPL portfolios and NPL management performance would increase market transparency and discipline. Disclosures could usefully include the accrual treatment for NPLs.

49. **Strengthen the regulatory sanctions toolkit.** While the toolkit for regulatory sanctions is typically well developed for capital and market abuse, it is often underdeveloped for NPL oversight. NCAs should review their sanctioning powers in this regard.

B. Insolvency and debt enforcement reforms

50. **Strengthen incentives for viable but distressed debtors and creditors to participate in meaningful restructuring.** The legal framework should consist of both *legal tools* designed to facilitate speedy in- and out-of-court solutions and an *adequate institutional framework* (including courts and insolvency practitioners) to support the consistent, efficient, and predictable implementation of the laws. More specifically, European authorities should

- *Enable the rapid exit of nonviable firms and the rehabilitation of viable firms.* A number of features could enhance insolvency laws: (1) expedient in-court approval of settlements negotiated out of court ("prepacks"); (2) post-commencement financing recognizing creditor priority to enable financing for the firm during restructuring (Bergthaler and others 2015); (3) inclusive restructuring involving all creditors (including secured and public creditors) (Background Notes, Section XII); (4) pre-insolvency processes that enable restructuring before reaching nonviability; (5) majority voting in classes (including cram downs); (6) simplified and cost-effective insolvency processes for SMEs enabling a fresh start for entrepreneurs within a reasonable time period (Bergthaler and others 2015); and (7) the facilitation of various restructuring tools, such as debt-equity swaps (for example, through removing the requirement for shareholders to approve corporate changes) (Background Notes, Section XIII).

[34] See Bergthaler and others 2015 for policies aimed at SME problem loans.

- *Augment out-of-court frameworks with hybrid features.* International practice suggests that out-of-court debt restructuring generates more rapid and cost-effective results, especially if the restructuring occurs against the backdrop of strong insolvency procedures. Out-of-court frameworks that use hybrid and enhanced features, such as a stay on creditor actions, majority voting, mediation or arbitration, or a coordinating committee, achieve the best results. *Strengthen debt enforcement and foreclosure processes.* Enforcement and foreclosure processes should be simplified and streamlined (for example, to clearly specify enforceable titles, limit appeals, set short preclusive deadlines) to enable a swift process. Out-of-court enforcement and foreclosure should be considered where appropriate.

- *Improve the institutional framework.* The judicial system should be strengthened by increasing the specialization of judge*s and establishing special benches for commercial or* insolvency matters. The performance of professionals (such as insolvency practitioners or bailiffs) should be properly supervised and adequately monitored. The fee structure should incentivize the rapid return to productive value of business assets and be performance based.

- *Facilitate participation of public creditors in restructuring.* Super-priorities for public claims should be avoided and priorities for public claims should be limited. In principle, public claims restructuring should be permitted like any private sector claim. Finally, clear and predictable guidance should be provided to public creditors under which they can participate in debt restructuring (Background Notes, Section XII).

51. **The prioritization and sequencing of insolvency, debt enforcement, and related institutional reforms should by informed by the country's institutional capacity.** It is important to recognize that legal and institutional reforms take time to bear fruit. In particular, institutional reforms (such as reforms of the judiciary or insolvency administrators) have a longer-term horizon and should be planned and rolled out properly to maximize their impact.

52. **Encourage outcome-based (or "functional") convergence of insolvency and debt enforcement regimes across EU countries to facilitate asset recovery.** The European Commission (EC) could issue further *Recommendations* (beyond the current guidance on pre-insolvency regimes and out-of-court restructuring (EC 2014a and 2014b) to establish principles based on international best practices against which member states will be assessed (preferably by an independent agency other than the EC) or need to regularly report on. Functional convergence of insolvency regimes across EU countries would greatly facilitate the move toward an EU Capital Markets Union (EC 2015). In some areas of debt enforcement and foreclosure, the EU has adopted *Directives* to harmonize the legal regime for EU members, such as the late-payment directive, cross-border garnishments, and the European payment order. Data collection on insolvency and enforcement processes should be unified and enhanced within the EU to enable adequate comparisons and proper assessments.

C. External NPL management and distressed debt markets

53. **Foster the development of markets for distressed assets to facilitate the disposal of NPLs, recognizing market infrastructure as a crucial constraint.** Access to timely financial

information on distressed borrowers, collateral valuations, and recent NPL sales are critical for the development of an active market for NPL restructuring. Facilitating the licensing of nonbanks for restructuring, as opposed to entities with a banking license, would lower the cost of entry into this market and allow for greater specialization. Use of specialist NPL servicing and legal workout agencies, and more efficient collateral auctions would help raise recovery values.

54. **Structured finance techniques can also facilitate the removal of impaired assets from bank balance sheets** (Aiyar and others 2015a; Barkbu and others 2013; Jassaud and Kang, 2015). European institutions, such as the EIB/EIF, could play a role in fostering markets for distressed debt, for example through investing in senior tranches or providing guarantees on mezzanine tranches of NPL securitization transactions. This involvement may also foster transparency and homogeneity, setting the stage for a truly pan-European market. The securitization of NPLs has proven to be a successful resolution technique in many jurisdictions.

55. **AMCs or other special-purpose vehicles could help kick-start a market for distressed debt.** First, they bring *economies of scale*, which may help smaller banks in particular resolve problem loans. For example, centralizing impaired assets from several banks into an AMC may help reduce the fixed cost of asset resolution, increase the efficiency of asset recovery, and allow for a more efficient packaging of assets for sale to outside specialist investors. Second, and relatedly, AMCs are likely to enjoy greater *bargaining power* due to their size, especially when loans are scattered within the system, collateral is pledged to multiple creditors, and the size of debtors is large relative to that of banks. Third, they encourage *specialization* by enabling banks to focus on new lending while allowing the AMC to concentrate on the recovery of impaired assets. This division of labor becomes increasingly important if NPLs are at systemically high levels and for smaller banks, which lack workout expertise and resources. Fourth, increased specialization can facilitate *better valuation and credit discipline.* The transfer of NPLs entails a separation of the loan administration away from their credit officers, which could foster a more objective assessment of credit quality. Finally, all these points together suggest that AMCs could be crucial to *price discovery*. Economies of scale, central bargaining power, and better valuation are likely to be key to solving the problem of collective inaction, thereby bridging the pricing gap in situations where no market exists, or the market is extremely illiquid.[35]

56. **AMCs could be private or public.** Larger banks may be in a better position to establish their own private AMCs. However, for smaller banks or in cases of market failure due to significant structural constraints or where NPLs have reached systemically high levels, consideration could be given to a national-level AMC with public participation. In either case, AMCs should be (1) *complementary* to other NPL resolution strategies (such as loan workouts in separate bank unit or bank-specific AMCs); and (2) *combined* with strict supervisory policies, robust insolvency

[35] In some cases, banks may choose to maintain NPL-AMCs on their balance sheets. On-balance-sheet structures can help overcome structural constraints (mandatory licensing, tax implications, and insufficient data quality) and boost expected returns. Here, banks can continue to service loans while the AMC focuses on providing management services for the restructuring or liquidation of impaired assets. Alternatively, servicing companies could be used to leverage outside expertise to help banks resolve on-balance-sheet NPLs.

frameworks, and the removal of obstacles to NPL resolution as described in the previous sections. Good governance and transparency are crucial to the success of AMCs. In cases of public participation, it would be necessary to ensure that the AMC operates as an independent entity and has a clear mandate to maximize the recovery value of assets. For instance, an AMC should not be set up as a unit within a central bank or a subsidiary thereof (Ingves and others 2004).

57. **In the EU, public sector involvement in AMCs needs to be compatible with state aid rules.** Box 2 outlines a possible model for national AMCs in which assets are sold at market prices and, therefore, no transfer of public resources occurs. This practice avoids the need to restructure participating banks and bail-in their creditors as required by the Banking Recovery and Resolution Directive (BRRD). But circumstances may arise in which state aid *is* needed to address otherwise unbridgeable pricing gaps (for example, if market prices are otherwise too low to induce banks to sell assets) or to address risks to financial stability or market failures arising, for example, from costly enforcement and lengthy foreclosure procedures. Here, the EC could issue guidance that clarifies *ex ante* the permissible design or implementation of AMCs involving public support, which would *not* result in a requirement to restructure the benefiting banks. In the current context, this guidance should take into account that NPLs have assumed systemic proportions in several EU economies, hindering credit supply and impairing the monetary transmission mechanism. Greater flexibility under these conditions would allow earlier and more proactive steps to address potential risks to financial stability.[36]

D. Support measures

The three-pillared strategy described above should be underpinned by support measures that cut across pillars, such as improving access to information and reforming tax regimes.

58. **Improve access to debtor information to enhance the effectiveness of NPL workouts.** Credit bureaus should include full details of borrowers' debts above a specific threshold, including arrears to utility companies or tax authorities. Asset registers that record real estate, vehicle, machinery, and equipment ownership should contain sufficiently granular information to facilitate reliable wealth assessments. Authorities should also ensure that such repositories are centralized, electronic, accessible to private sector agents, and economical. Improved links between asset registers and credit bureaus across national borders are needed in some regions to fully capture wealth and debt abroad.[37]

59. **Deploy debt advisory services so debtors are well informed and confident to engage with creditors.** Households should have access to free or subsidized budgeting and legal advice

[36] In several countries, uncertainty about EU state aid rules has delayed the resolution of NPLs, such as in the case of Slovenia, or hampered the return of banks to financial health, such as in Portugal and Spain.

[37] Some EU countries have recently taken steps to deal with these shortcomings. Ireland, for example, has provided for and is introducing a new public credit register and a new real estate transaction register, and has made improvements to other national repositories.

services to ensure they are aware of their options and are comfortable discussing them with creditors. These services should be complemented by coordinated public outreach campaigns including through availability of standard advice pamphlets at bank branches and creation of a citizens’ advice website dedicated to household debt management. Micro and small enterprises should have access to institutes of credit management to ensure sufficient understanding of debt and supply chain credit management. Implementation of such services for both households and small businesses would greatly benefit from the establishment of a qualification or profession for debt counselors.

60. **Widen the scope for real estate investment and price discovery.** Household and commercial real estate transaction prices as well as key property attributes should be made available on a public website to enable informed investment decisions. Real estate auctions should aim to attract the largest number of bidders, such as through announcement via a public website and implementation of the auction itself on an electronic platform.

61. **Reform tax rules to encourage NPL resolution.** The credit hierarchy that applies to secured and unsecured private creditors and public authorities should be modified as necessary to ensure that all creditors are broadly and equally incentivized to support debt restructuring as well as enforcement and liquidation options (Background Notes, Section XII). Tax rules should be reviewed and amended in areas where creditors are discouraged from provisioning or writing off loans or from selling any underlying collateral. Tax rules that inhibit debtors from accepting debt restructuring or write-off deals should also be amended.

CONCLUSION

62. **Reducing the level of impaired assets is essential for restoring the health of the banking sector and supporting credit growth in Europe.** High NPLs hold back credit supply by locking up capital that could be used to support fresh lending. And low write-off rates hinder necessary corporate restructuring and prolong the debt overhang, depressing credit demand. Given that impediments to NPL resolution are often interlinked, a comprehensive strategy is needed to address the NPL problem. Based on international experience, such a strategy should be based on three key pillars: (1) enhanced supervision, (2) insolvency reforms, and (3) the development of a distressed debt market. Given that European banks tend to operate in multiple jurisdictions—within and outside the euro area—a successful NPL resolution strategy would require close coordination between EU, euro area, and national competent authorities.

Box 1. Lessons from the Past International Experiences with NPL Resolutions[1]

International experience with tackling high levels of NPLs in past crises points to the critical importance of intensive supervision to ensure swift loss recognition and the exit of nonviable borrowers, and the strengthening of insolvency systems including by developing out-of-court workouts. AMCs helped dispose of NPLs and restructure corporates in some cases.

Swift loss recognition and the exit of nonviable borrowers to accelerate the resolution process was a critical element in many successful cases. In Japan (2001), the Financial Services Agency (FSA) required major banks to apply strict discounted cash flow analysis in their NPL assessments. Similarly, in Korea (1998), the supervisor instructed banks to separate out nonviable firms, following specific forward-looking criteria and leverage levels. In Sweden (1994), firms with low interest coverage ratios and high leverage were identified for bankruptcy or liquidation.

Countries also strengthened their insolvency systems to facilitate reorganization and out-of-court workouts (Indonesia [1999], Thailand [1999], Turkey [2002], Japan [1999, 2008], and Korea [1998, 2006]). Countries enhanced their insolvency laws to encourage rehabilitation, while creating a credible threat of bankruptcy for recalcitrant debtors, thereby setting proper incentives and expected payouts for negotiating agreements out of court. Reforms typically enabled the rapid liquidation of nonviable debtors, allowed for ownership changes in debt restructuring agreements, and introduced prepack procedures for quick court approval of debt restructuring plans negotiated out of court. Crisis countries also introduced temporary, formal, and hybrid out-of-court workout frameworks with government involvement, using a range of techniques including arbitration and mediation, creditor committees, majority voting, and limited judicial intervention (Korea [1997, 2004], Indonesia [1997], Thailand [1998], Malaysia [1998], and Turkey [2002]). Experience showed that these hybrid schemes enabled better coordination among creditors, enhanced incentives for both creditors and debtors to participate in such schemes (Hagan and others 2003), and delivered encouraging results, albeit mostly for large corporates. Insolvency reforms were complemented by other reforms such as specialized courts (Indonesia, Thailand), the reform of insolvency administrators (Indonesia), and the removal of tax and other regulatory obstacles (Korea, Thailand).

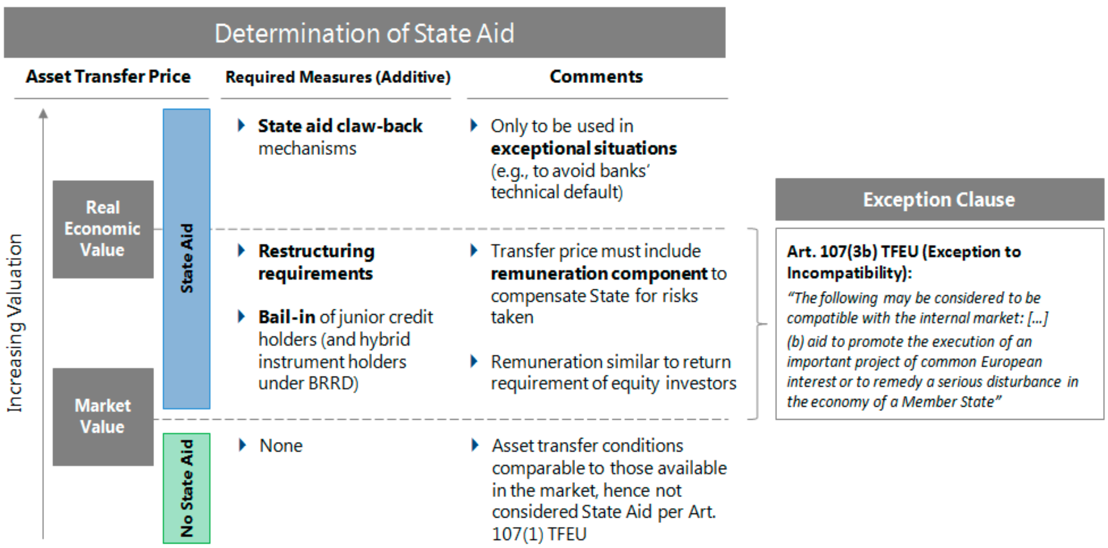
AMCs, both private and public, have been used in some cases to facilitate NPL disposal and corporate restructuring (Sweden, Indonesia, Malaysia, Korea, and Thailand).[2] AMCs helped with separating bad from good assets, allowing the ceding bank(s) and the AMCs to focus on their respective (but often conflicting) objectives—financial intermediation and asset recovery. AMCs were particularly effective in Asia, where they were instrumental in bridging the gap between the price at which banks were willing to sell and investors willing to buy (the "pricing gap"). By buying and then selling bad assets back to private investors, these AMCs—which were typically centralized—helped incubate a market for distressed debt and provided an outlet for banks to manage their NPL portfolios.

[1] This box draws on Aiyar and others 2015b.

[2] Other examples of AMCs include the Resolution Trust Corporation in the United States (now part of the Federal Deposit Insurance Corporation), the Malaysian Danaharta, and the Indonesian Bank Restructuring Agency.

Box 2. Compatibility of AMCs with EU State Aid Rules

To allow banks to sell NPLs without facing penalties, AMCs should comply with EU state aid rules. They should either (1) involve no transfer of public resources or (2) receive only such public sector support as is compatible with the EU treaty. If assets are transferred to the AMC "above market value," then the existence of state aid is implied. Such public support would usually trigger the bail-in of junior creditors and hybrid instruments holders, and the implementation of a restructuring plan for the bank to return to long-term viability. In exceptional circumstances, exemptions to the restructuring and bail-in requirements could be granted, for example on the grounds that the public support addresses a market failure or remedies a serious disturbance in the economy of a member state.



A possible model for national AMCs *without* transfer of public resources would require asset sales at market prices and include several other desirable characteristics:

- *Transfer at market price.* Assets should be transferred from banks to the AMC at market prices. If no market exists, or if the market is undermined by severe illiquidity, prices should be determined using a model-based approach agreed with DG Competition (factoring in risk premia in line with valuations of similar asset classes elsewhere).

- *Semiprivate ownership.* Public sector participation would demonstrate political commitment and attract private sector funding through shared ownership. But public ownership should be limited to a minority stake so that AMC liabilities would be treated as only as contingent liabilities for the state, helping overcome potential fiscal constraints.

- *Voluntary participation by banks.* Banks should have the option to work out loans internally or through their own AMCs.

- *Governance.* To avoid risks of moral hazard and warehousing of bad assets, national AMCs should have a clear mandate to maximize the recovery value of acquired assets over a fixed life span. Clawbacks could be used to protect public investment in the event of losses.

- *Strengthening the recovery value of NPLs.* Temporary powers, such as time-bound fast-track restructuring, might be needed to overcome structural deficiencies (inefficient debt enforcement processes, deficient insolvency laws, and clogged judicial systems), subject to consistency with constitutional law. Any such powers would be granted to *all* market participants, including banks that are resolving NPLs internally, to ensure a level playing field.

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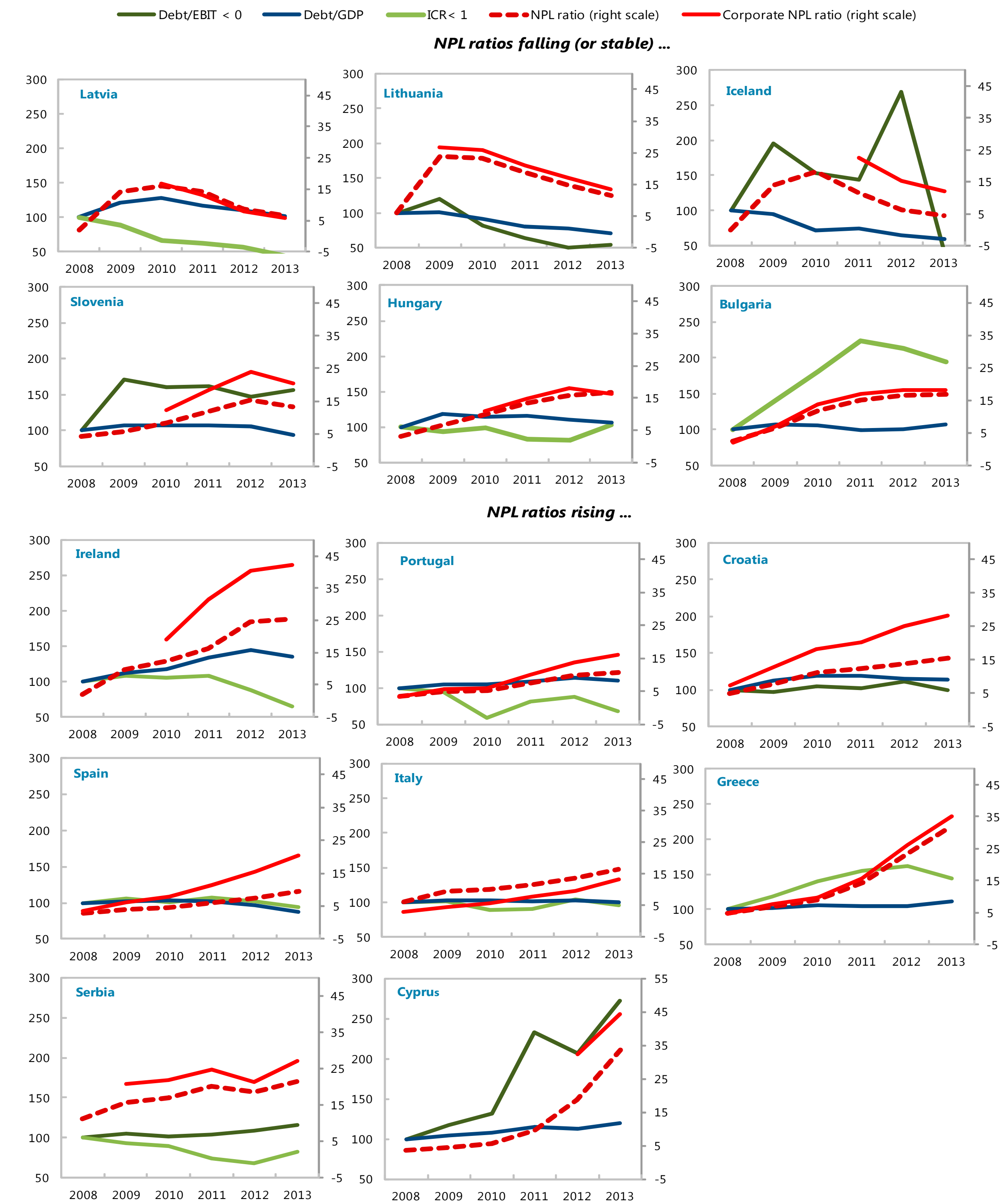
ANNEX

Figure A1. Corporate Sector Debt Metrics and NPL Ratios



Sources: Orbis; Eurostat; IMF's FSIs; national authorities; and IMF staff calculations. Note: The debt-at-risk is defined as a share of debt owed by weak firms in total debt of sample firms, where weak firms are either those with ICR<1 (interest coverage ratio (ICR) = earnings as a share of interest expense) or Debt/EBIT<0 (that is, positive debt and negative earnings); Debt/GDP is calculated from sectoral financial and national accounts data. Both debt-at-risk and Debt/GDP series are indexed (2008 = 100). Note that in the case of Ireland, the NPL ratio started to decline in 2014.

A Strategy for Resolving Europe's Problem Loans[1]

TECHNICAL BACKGROUND NOTES

September 2015

[1] Prepared by a staff team from EUR, MCM and LEG departments, including Shekhar Aiyar (EUR), Wolfgang Bergthaler (LEG), Jose M. Garrido (LEG), Anna Ilyina (EUR), Andreas (Andy) Jobst (EUR), Kenneth Kang (EUR), Dmitriy Kovtun (EUR), Yan Liu (LEG), Dermot Monaghan (MCM), Marina Moretti (MCM), Pamela Madrid (EUR), Pablo Lopez-Murphy (EUR), Jiri Podpiera (EUR), Jean Portier (MCM), Yan Sun (EUR) and Oliver Wuensch (MCM).

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I. THE EU DEFINITION OF NPLS[1]

1. **NPLs are defined and reported differently across countries as there is no one international standard.** For countries reporting financial soundness indicators (FSIs) to the IMF, the FSI Compilation Guide (IMF, 2006) recommends reporting loans as non-performing when (i) payments of principal and interest are past due by three months (90 days) or more, or (ii) interest payments equal to three months (90 days) interest or more have been capitalized (reinvested into the principal amount), refinanced, or rolled over (that is, payment has been delayed by agreement).[2] In addition, NPLs should also include those loans with payments less than 90 days past due that are recognized as non-performing under national supervisory guidance. Generally, supervisory guidance includes reference to significant financial difficulty of the borrower, bankruptcy and breach of contract; often there are criteria on the treatment of restructured loans. This is in line with international guidance on criteria for identifying and reclassifying a problem asset (Basle Committee on Banking Supervision, Core Principle 18) or criteria for establishing default (Basel II). Nonetheless, there still may be important differences or discretionary aspects in these criteria that make it difficult to compare NPL levels, even among banks in the same country.

2. **European national supervisory authorities tend to use the 90 days of payments past-due as a quantitative threshold as well as bankruptcy as objective criteria for reporting a loan as non-performing.** However, there is less consistency in the other, sometimes more discretionary, criteria used under national supervisory guidance. In particular, restructured loans are not necessarily classified as NPLs (or can be immediately upgraded), while some authorities allow banks to classify past-due loans as performing if there is high-value collateral, guarantees or other risk mitigants (Hulster and others, 2014). This may bias NPL ratios down in some countries. On the other hand, more CESEE than advanced EU countries require all loans to a given debtor to be downgraded if any the debtor's loans is classified as an NPL (i.e., debtor or customer view approach). Among 20 European countries with high aggregate NPL ratios (i.e., above 10 percent as of end-2014), there appears to be less scope for the use of collateral to upgrade loans to performing but also less classification of restructured loans and less use of the debtor approach (Table I.1),

[1] Prepared by Pamela Madrid (EUR).

[2] The 90-day threshold is also used in Basel II and CRD IV definitions of default (although the latter allows for national discretion for 180-day threshold for retail exposures secured by real estate).

Table I.1: Classification Criteria for NPLs (percent answering "yes")

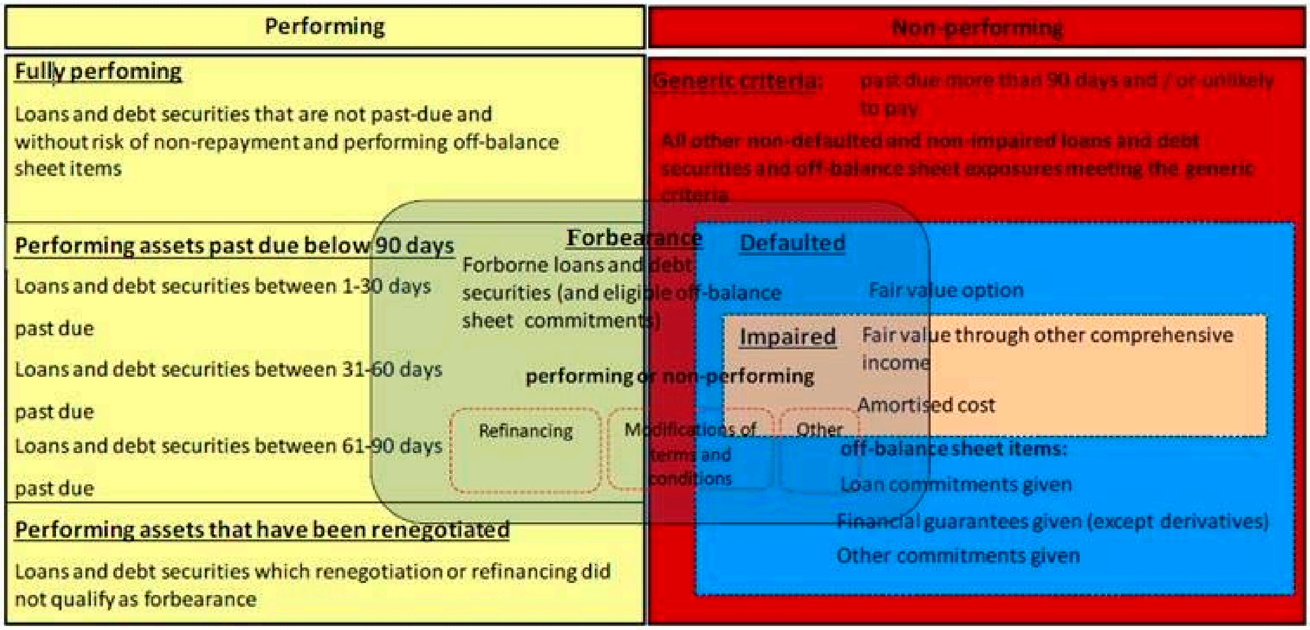
Criteria	26 European countries (WB study)*	20 European countries with high NPLs**
Existence of collateral, guarantees or other credit risk mitigants	83	55
Restructuring	83	60
Customer view (debtor approach)	74	55

Source: World Bank; Barisitz; IMF FSI metadata; IMF staff. Notes: (*) includes emerging market economies (Albania, Bosnia Herzegovina, Bulgaria, Croatia, Czech Republic, Estonia, Hungary, Georgia, Kosovo, Latvia, Lithuania, Macedonia, Montenegro, Poland, Romania, Serbia, Slovak Republic, Slovenia), as well as advanced economies (Austria, Denmark, France, Germany, Italy, Greece, Norway and Sweden); (*) includes economies with the peak NPL ratio of over 10 percent during 2008-2014.

3. **In January 2015, the EU adopted harmonized and consistent definitions of both forbearance (i.e., restructuring or refinancing of troubled debt) and nonperforming exposures.**[3] Previously, there were neither comprehensive, harmonized definitions nor specific and detailed supervisory reporting requirements for NPLs. For supervisory reporting purposes, non-performing exposures are now defined as those being (i) material exposures more than 90 days past-due and/or (ii) unlikely to be repaid in full without realization of collateral. Exposure in default or impaired are always to be reported as non-performing, while collateral is not taken into account in the categorization. The debtor approach would apply to non-retail exposures when past-due payments exceed 20 percent of the gross on-balance sheet exposures (and would apply to other companies in the group). When forbearance measures are extended to non-performing exposures these remain classified as NPLs until there is no impairment or default, one year has passed, and there are no past-due amounts or concerns about full repayment according to the post-forbearance conditions. Given that many EU countries with high NPLs tend to have less stringent reporting requirements of restructured loans (or do not require the debtor approach), these countries may see an increase in NPLs.

[3] Commission Implementing Regulation (EU) No. 680/2014 lays down the implementing technical standards submitted by the EBA to the Commission with regard to supervisory reporting of institutions according to Regulation (EU) No 575/2013 of the European Parliament and of the Council.

Figure I.1. EBA's New Definition of Performing and Non-performing Exposures



Source: European Banking Authority (2014).

II. CREDIT GROWTH DETERMINANTS IN CESEE[1]

1. **This section revisits bank-level determinants of credit growth using dynamic panel methods for a sample of banks operating in CESEE countries following earlier studies on credit growth in CESEE countries** (European Banking Coordination Initiative (2012), Klein (2013), IMF (2014))**.** The dataset includes about 450 banks, covering the period of 2000-2014, with an average of 6 years of observations per bank. The findings suggest that bank lending is influenced by both bank-specific characteristics as well as macroeconomic conditions (see Table II.1). In general, higher NPL ratio,[2] low capital-asset ratio, and low pre-tax earnings (in percent of bank's assets) are associated with lower credit growth. The operating environment matters as well: high GDP growth is associated with stronger credit growth because of both improved debt servicing capacity as well as better lending opportunities.

Table II.1 Regression Results

Real Credit Growth	(1)	(2)	(3)	(4)	(5)
Growth in gross loans (in local currency terms), (t-1) %	0.192***	0.225***	0.131*	0.185	0.206**
	(0.0632)	(0.0619)	(0.0758)	(0.118)	(0.0930)
GDP growth	1.114***	1.350***	1.153***	0.850***	1.073***
	(0.248)	(0.268)	(0.250)	(0.247)	(0.276)
GDP growth (t-1)	0.0455	0.0317	0.199	0.111	0.103
	(0.188)	(0.214)	(0.209)	(0.195)	(0.203)
NPL ratio (t-1)	-0.464***	-0.531***	-0.389***	-0.352	-0.355***
	(0.108)	(0.117)	(0.117)	(0.295)	(0.132)
Capital asset ratio (% of beginning period assets)	0.331***			0.382***	
	(0.114)			(0.143)	
Capital asset ratio (% of assets)		0.178			-0.0745
		(0.196)			(0.262)
Pre-tax operating income / Avg. assets %			1.522***	1.028*	1.575***
			(0.439)	(0.617)	(0.437)
Constant	-3.579	0.131	0.384	-8.670*	-0.259
	(3.766)	(3.030)	(2.135)	(5.137)	(4.039)
Observations	1,052	1,052	1,000	793	793
Number of idBS	257	257	278	223	223
Arellano-Bond test for AR(1)	0.000675	0.000338	0.000291	0.00287	0.000922
Arellano-Bond test for AR(2)	0.673	0.637	0.730	0.714	0.693

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1
Note. Dynamic panel estimation. Instruments used are lags of the independent variable itself, first period lag of NPL, pre-tax income ratio, capital/asset ratio, GDP growth (t-1), and time and country dummies.
Data source: Bankscope, IMF International Financial Statistics.

[1] Prepared by Yan Sun (EUR)

[2] Further refinements of this analysis could include (i) considering capital in excess of the amount that covers net NPLs, and (ii) the un-provisioned part of impaired loans, however, these are unlikely to lead to significantly different results.

III. MACRO-FINANCIAL EFFECTS OF HIGH NPLS[3]

1. **There is extensive literature that explores the impact of macroeconomic conditions on banks' financial soundness indicators** (see Table III.1). Bank default rates tend to follow a cyclical pattern, falling during macroeconomic expansions and rising during downturns (Marcucci and Quagliariello, 2008). There is a significant and negative relation between changes in the output gap and loan write-offs (Hoggarth and others, 2005). Other studies (e.g., Kalirai and Scheicher, 2002) find that banks' asset quality is influenced by the short-term nominal interest rate, industrial production, stock market performance and a business confidence index. Furthermore, banks may respond to rising NPLs by "gambling for resurrection", which leads to further increase in asset impairments, i.e., banks with relatively low capital buffers may choose to increasing the riskiness of their loan portfolios, which lead to further increase in NPLs (Keeton and Morris, 1987).

2. **There is also a growing number of studies showing that high NPLs undermine the capacity of banks to support economic activity.** Deterioration in bank's asset quality raises its cost of capital, resulting in higher lending rates, reduced lending volumes and increased risk aversion (Diawan and Rodrik, 1992; Kashyap and others, 1994; Krosner and others, 2007). A number of recent studies (Table III.1) find a significant negative relation between NPLs and both lending and GDP growth—broadly speaking, a 1 percentage point increase in the ratio of NPL to total loans reduces net lending by around 0.8 percentage points (see Figure III.1). For instance, Espinosa and Prasad (2010) find a strong but short-lived feedback effect from losses in banking sector balance sheets to non-oil growth, using a sample of 80 banks from the Gulf Cooperation Council (GCC) region. In a large panel of advanced economies, Nkusu (2011) documents that rising NPLs are often a result of long-lasting linkages between credit market frictions and macroeconomic performance.[4]

3. **Banks' reduced lending capacity tends to disproportionately affect firms that are most dependent on bank finance.** The effect of asset quality on credit growth also seems more pronounced for firms that are dependent on external financing (Rajan and Zingales, 1998) and for smaller firms with fewer tangible assets that produce less tradable goods (Kannan, 2010). In the case of the latter, lending tends to be inherently riskier due to the frequent absence of a long credit history and/or sufficient (and liquid) collateral. This is borne out by international experience. Inaba and others (2005) find that the deterioration of banks' balance sheets after the burst of the asset price bubble in Japan in the early 1990s hindered investment by firms that

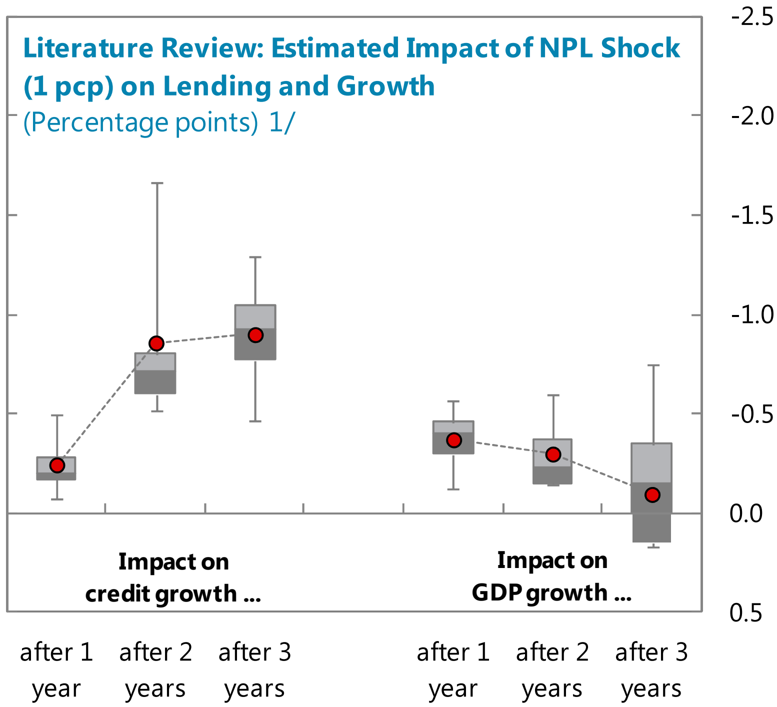
[3] Prepared by Andreas (Andy) Jobst (EUR).

[4] Note that credit-less recoveries are possible but they tend to be more sluggish and shallow compared to normal recoveries that are accompanied by credit growth (Bijsterbosch and Dahlhaus, 2011; Abiad and others, 2011).

relied heavily on bank borrowing. Klein (2013) shows that tight financial conditions for SMEs in Europe have been a drag on the pace of economic recovery.

4. **Persistent NPLs are linked to private sector debt overhang, which depresses the demand for credit.** While some of the decline in lending can be attributed to credit supply factors, it may also be caused by lack of demand for credit. Viable firms may be held back from investment and expansion due to high indebtedness. In the absence of debt restructuring, overextended companies have little incentive to invest because any return is used to service their debt. Based on aggregate firm-level data for 2000-2011 in the euro area periphery, Goretti and Souto (2013) investigate the macroeconomic implications of high corporate debt burden. Their results point to a negative effect of debt overhang on firms' investment.

Figure III.1. Estimated Impact of NPL Shock on Bank Lending and GDP



Sources: Dovern and others (2010), Espinoza and Prasad (2010), Nkusu (2011), De Bock and Demyanets (2012), Klein (2013), Bending and others (2014), and IMF staff calculations. Notes: Positive (negative) values indicate a negative (positive) change in lending/growth. 1/ Boxplots include the mean (red dot), the 25th and 75th percentiles (grey box, with the change of shade indicating the median), and the maximum and minimum (whiskers).

Table III.1. Recent Studies on NPLs and Credit/GDP Growth

Author(s) (Year)	Region/country	Focus	Main finding	Time period	Method
			Impact of macroeconomic and financial sector conditions on NPLs		
Keeton and Morris (1987) Gambera (2000) Kent and D'Arcy (2000) Fuentes and Maquieira (2000) Kalirai and Scheicher (2002) Rajan and Dhal (2003) Hoggarth and others (2005) Baboušek and Jančar (2005) Marcucci and Quagliariello (2008)	United States (2,400 banks)/ United States Australia Chile (128) Austria India (public banks only) U.K. Czech Republic Italy (credit register)	Empirical determinants (country-level), <u>single country</u>	Positive linkage between higher credit risk/ default rates and adverse macroeconomic/ business cycle conditions (e.g., disposal income, unemployment, headline inflation, nominal interest rates, business confidence, and equity market returns). Hoggarth and others (2005) also evaluate the dynamics between banks' write-off to loan ratio and several macroeconomic variables.	1979-1985 1987-1999 1890-1999 1960-1997 1990-2001 1993-2003 1985-2004 1988-2004 1993-2006	time series regression, panel regression, reduced form VAR
Duan and others (1992) Salas and Saurina (2002) Breuer (2006) Louzis and others (2011)	Spain U.S. banks (75 listed banks) Italy (credit register) Greece (9 largest banks)	Empirical determinants (bank/country-level), <u>single country</u> 1/	Lending rate, leverage, borrower type, loan category, quality of institutions, and form of banking organization are major determinants of credit risk and rising NPLs.	1975-1989 1998-1999 1985-1997 2003-2009	time series regression, panel regression
Bofondi and Ropele (2011) Beck and others (2013)	52 countries (1,881 banks) 75 countries (both advanced and emerging economies)	Empirical determinants (bank/country-level), <u>multiple countries</u>	Declining real GDP growth has a negative impact on NPLs; depreciation (appreciation) of the domestic currency would lead to a *decline* (increase) in NPLs.	1990-2010 2000-2010	dynamic panel estimation [system GMM]
			Feedback effect of NPLs on macroeconomic conditions (lending and growth)		
Dovern and others (2010) Espinoza and Prasad (2010) Nkusu (2011) De Bock and Demyanets (2012) Klein (2013) Bending and others (2014) 3/	Germany 5 GCC countries 26 advanced economies, mostly 25 emerging market countries 16 CESEE countries 16 euro area countries	Empirical determinants (bank/country-level) and macroeconomic feedback of NPLs	NPLs have a negative and significant effect on credit, inflation, and real GDP growth, while contributing to higher unemployment. De Bock and Demyanets (2012) find that the slowdown in economic activity is more pronounced if positive shocks to NPLs are accompanied by a depreciation of the exchange rate and a decline in foreign portfolio inflows. <u>Impact of NPL shock (1 pcp) on lending/GDP growth</u>: ≈-0.4 pcp/n.a. after two years (Dovern and others, 2010), -0.4 pcp after one year/-0.7 pcp after two years (Espinoza and Prasad, 2010), -0.3 pcp/-0.2 pcp after one year (Nkusu, 2011), -0.5 pcp after one year/-1.7 pcp after two years (De Bock and Demyanets, 2012), -0.8 pcp/-0.6 pcp after two years (Klein, 2013), and n.a./-0.8 pcp after two years (Bending and others, 2014).	1968-2007 1995-2008 1998-2009 1996-2010 1998-2011 2004-2013	dynamic panel estimation [system GMM]
Kashyap and others (1994) Kroszner and others (2007)	2,328 U.S. manufacturing companies 38 advanced and emerging market economies	Macro-economic feedback from NPLs only	High NPLs affect banks' capital position and raise their cost of capital, thereby resulting in higher lending rates that contribute to lower credit growth; sectors highly dependent on external finance tend to experience a substantially greater contraction of value added during a banking crisis in deeper financial systems than in countries with shallower financial systems.	1980-1985 1980-2000	panel regression

Note: 1/ Some of these papers also include an analysis of the impact of macroeconomic conditions on loan performance; however, for the organization of the literature, they have been grouped together with papers focusing on the impact of bank-level variables. 2/ Analysis based on write-off rate (reported valued are implied based on about 10 percent write-off rate over the sample period). 3/ Love and Turk (2014) also apply a panel vector autoregression (VAR) approach on a single-country basis only (Egyptian banking sector).

IV. THE IMPACT OF CORPORATE LEVERAGE ON INVESTMENT AND EMPLOYMENT[1]

1. **This section examines how financial leverage affects the elasticity of firm-level investment and employment to a sales shock.** It extends the approach used by Sharpe (1994) and Heisz and LaRochelle-Cote (2004), which involves estimating the impact of changing sales on employment, conditional on the level of leverage, by (i) allowing for a differentiated impact of leverage under positive and negative sales shocks, and (ii) applying this approach to both employment and net investment. The regression model for a firm i is as follows:

$$\Delta Y_{i,t} = \alpha_i \Delta S_{i,t} + \beta^{+} \Delta S_{i,t}^{+} * L_{i,t-2} + \beta^{-} \Delta S_{i,t}^{-} * L_{i,t-2} + \gamma \Delta S_{i,t} A_{i,t-2} + \delta L_{i,t-2} + \theta A_{i,t-2} + \varepsilon_{i,t}$$

where ΔY represents alternatively growth of employment or net investment, ΔS is firm's growth of sales, L stands for leverage (measured as debt-to-total assets ratio), A for total assets, and α, β, γ, δ, and θ are parameters. Structural variables are lagged by two years to minimize endogeneity. The model is estimated using firm-level annual data (2005-2013) from the ORBIS database for countries with high NPL ratios (above 10 percent at peak). The sample includes Cyprus, Spain, Greece, Ireland, Italy, Portugal (all euro area), as well as Iceland, Croatia, Bulgaria, Hungary, Latvia, Lithuania, Serbia, and Slovenia (selected CESEE countries).

2. **Results suggest that higher leverage reduces employment and investment growth in upturns and accelerates their declines in downturns.** A decline in sales generally leads to cuts in employment and investment and vice versa. The extent of decline/increase in employment or net investment, however, depends on how leveraged the firms are (Table 1):

- *Higher leverage reduces the elasticity of employment and net investment to positive sales shocks.* In response to a 10 percent increase in sales, high-leverage firms (150 percent of debt-to-asset ratio) increase employment by 1.1 percent, while firms with low or no leverage increase employment by 1.6 percent. In response to the same positive sales shock, high-leverage firms cut investment between 9 and 12 percent (which can be interpreted as continued reduction in capital expenditures regardless of the positive developments in sales), while firms with low or no leverage increase net investment by up to 3 percent, on average.

- *Higher leverage exacerbates cutbacks in employment and net investment in response to declining sales*. The elasticity of employment and investment to a 10 percent negative sales shock increases with the level of leverage (see Table IV.2) from 1.5 at low leverage to 1.6 at high leverage in the case of employment and from 2.8 to 10 in the case of net investment.

[1] Prepared by Jiri Podpiera (EUR).

Table IV.1. Employment and Investment Response to a 10 percent Sales Shock (in percent)

	Positive shock		Negative shock	
	Employment	Investment	Employment	Investment
Leverage (debt to total assets)				
Low (0-10 percent)	1.5-1.6	2.6-3.0	1.5-1.6	2.6-3.0
Medium (30 percent)	1.4-1.5	0-0.2	1.5-1.6	3.8-4.8
High (150 percent)	1.1-1.1	-9.4-(-12.0)	1.6-1.7	8.9-11.8

Source: IMF staff calculations, based on Table IV.2.
Note: Results for the sample that includes euro area countries (Cyprus, Spain, Greece, Ireland, Italy, and Portugal) and Iceland are in red.

The estimation results are presented below:

Table IV.2. Regression Results

	Selected Euro Area [1/] and CESEE countries [2/] and Iceland		Selected Euro Area countries [1/] and Iceland	
	Employment growth	Investment growth [3/]	Employment growth	Investment growth [3/]
Lagged dependent variable	-0.260***	-0.562***	-0.282***	-0.568***
	(0.001)	(0.001)	(0.001)	(0.001)
Change in sales	0.155***	0.257***	0.147***	0.254***
	(0.000)	(0.077)	(0.000)	(0.087)
Change in sales$^+$ x leverage $_{t-2}$	-0.029***	-0.896***	-0.025***	-1.009***
	(0.001)	(0.221)	(0.001)	(0.239)
Change in sales$^-$ x leverage $_{t-2}$	0.011***	0.425*	0.006***	0.585**
	(0.001)	(0.228)	(0.001)	(0.249)
Change in sales x total assets $_{t-2}$	-0.000***	-0.000*	-0.000***	-0.000*
	(0.000)	(0.000)	(0.000)	(0.000)
Total assets $_{t-2}$	-0.000***	0.000	-0.000***	0.000
	(0.000)	(0.000)	(0.000)	(0.000)
Leverage $_{t-2}$	0.004***	0.438**	0.004***	0.548**
	(0.001)	(0.217)	(0.001)	(0.236)
Constant	-0.014***	-1.259***	-0.018***	-1.299***
	(0.000)	(0.058)	(0.000)	(0.065)
Observations	4,504,893	5,292,963	3,616,545	4,648,142
R-squared	0.11	0.23	0.12	0.23
Number of companies	1,422,218	1,499,190	1,132,501	1,281,032

Note: Estimated using fixed effects; Standard errors in parentheses; Stars denote significance: *** p<0.01, ** p<0.05, * p<0.1.
[1/] Selected Euro Area - Cyprus, Spain, Greece, Ireland, Italy, and Portugal;
[2/] Selected CESEE - Croatia, Bulgaria, Hungary, Latvia, Lithuania, Serbia, and Slovenia.
[3/] Investment growth is calculated as $\Delta I_t/I_{t-1}$, where I_t is net investment derived from the change in fixed assets.
Source: Orbis and IMF staff calculations.

V. CAPITAL RELIEF AND NEW LENDING CAPACITY FROM NPL DISPOSAL[1]

1. **The market price of NPLs typically reflects several factors, such as the effectiveness of the insolvency regime and the rate of return demanded by investors.** In this exercise, we assume that banks reduce the current stock of NPLs (end-2014) by selling their distressed loans to external investors. This reduces the regulatory capital charge of their loan book in proportion to the share of (partially provisioned) NPLs (and their applicable credit risk weight). The market price reflects the expected time to recover the residual value of distressed assets (being lower where foreclosure times are longer and debt enforcement regimes weaker) and the expected return on investment consistent with general profit expectations in distressed debt markets.

2. **A shortfall of the market price below the net book value of NPLs is commonly referred to as the "pricing gap" (which can also be expressed as a "haircut" on the net book value).** The sale of loans results in a loss (gain) on disposal and reduces (increases) capital if the selling price lies below (above) the net book value (i.e., the gross value of NPLs after deducting the current level of specific loan loss reserves). Depending on provisioning levels, the effectiveness of the insolvency regime, and the return expectations of investors on the market prices of NPLs, the "pricing gap" can vary significantly across countries.

3. **A realistic calculation of the "pricing gap" requires a detailed assessment of the robustness of loan loss provisions and of the various factors affecting the market price of NPLs.** In the main text of the SDN, Figure 4 presents the results of a simplified calculation, where the "pricing gap" is either (i) assumed to be zero (i.e., the selling price equates to the net book value of NPLs) or (ii) applied uniformly (via a standard haircut) without taking into account country-specific factors. In a more granular exercise, the uniform haircut is replaced with country-specific haircuts that account for the uneven distribution and different credit risk-weightings of NPLs across countries and reflects both the return expectations of external investors and lower asset recovery under inefficient debt enforcement regimes. Thus, the selling price of NPLs represents the reported net loan value less the country-specific haircut, and is calculated as the net present value of the loan after accounting for the usual servicing/legal fees and management costs (of 10 and 2 percent, respectively). We assume that the unsecured portion of each loan (20 percent of the principal value) is fully provisioned and the secured portion depreciates at the expected return of distressed debt investors (10 percent p.a.), with the collateral deteriorating by 5 percent. The calculation for a principal loan value at unity can be expressed as

$$S = 1 - [0.2(1 - r_c) + (0.8e^{-rt} - M)/0.8]$$

[1] Prepared by Andreas (Andy) Jobst (EUR), Jean Portier, and Luca Sanfilippo (both MCM).

where S is the market (selling) price of the distressed loan, *M* are the servicing/legal fees and management costs (as a percent of the principal value), *r* represents the assumed discount rate (equivalent to the internal rate of return (IRR) of 10 percent commonly expected by distressed investors), r_c is the rate of collateral decay and time *t* in number of years.

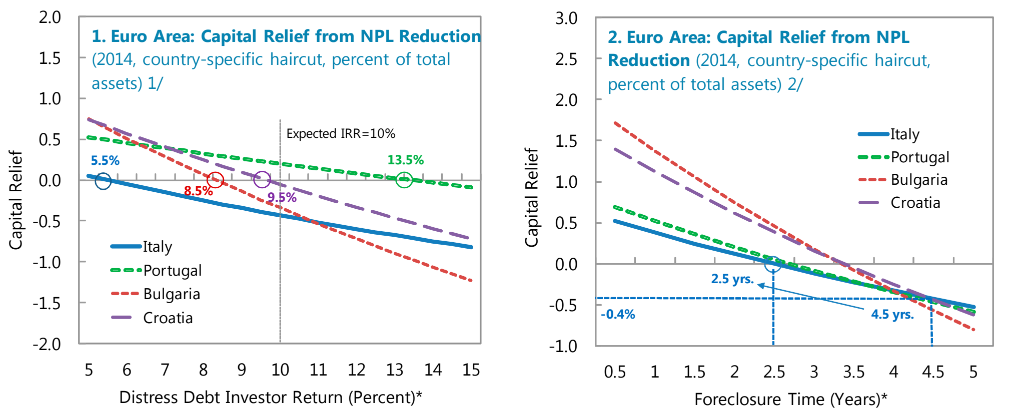
4. **Absent a pricing gap, timely disposals of NPLs—combined with structural reforms to reduce foreclosure times by strengthening debt enforcement and insolvency frameworks—can free up a large amount of regulatory capital and generate significant capacity for new lending.** For a large sample of European banks, we calculate bank-by-bank the amount of capital that would be released by removing NPLs from bank balance sheets at net book value. We assume that banks reduce their NPLs to a level consistent with historical averages (between 3 and 4 percent of gross loan book for most banks); meet a target capital adequacy ratio of 16 percent; and offer a 10 percent rate of return on investment. Importantly, for countries with elevated expected foreclosure times (Bulgaria, Croatia, Cyprus, Czech Republic, Greece, Hungary, Italy, Poland, Romania, Serbia, Slovak Republic, and Slovenia), we reduce the expected foreclosure time (ECB, 2009) by up to two years to assess the potential impact of structural reforms on the pricing gap. Under these assumptions, the aggregate capital relief would amount to €19 billion (or 0.1 percent of total assets of sample banks at end-2014) (Annex Figure V.1., chart 4). This in turn could unlock new lending of €261 billion (or almost 2.5 percent of GDP), provided that there is corresponding demand for the new loans. Serbia, Slovenia, Romania, Bulgaria, Croatia, and, to a lesser extent, Ireland and Portugal, would benefit the most under these conditions.

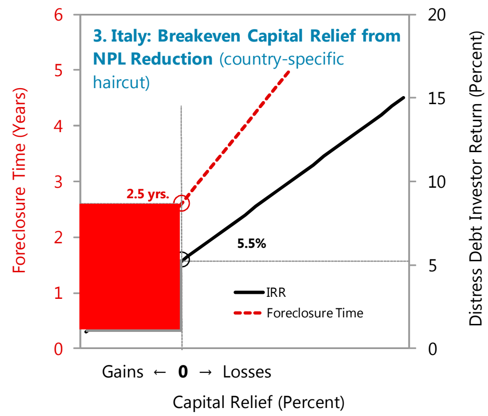
5. **Since the impact on capital varies significantly across countries, the additional lending capacity would range from some 39 percent of GDP in Ireland and 16 percent of GDP in Serbia to 8 percent of GDP in Bulgaria and Croatia, and 5 percent in Portugal.** In addition, reducing investors' return expectations from 10 percent to 5 percent has a powerful impact: for example, in the case of Italy, this would result in additional capital relief of almost €12 billion and about €118 billion (or 7 percent of GDP) in new lending (Figure V.1, Chart 5).[2]

6. **Without reduced asset recovery cost in some countries, potential losses from selling NPLs would exceed any capital relief.** In some countries, structural reforms and/or lower investment returns of distress debt investors are needed for external NPL resolution to have a net positive effect (see Figure V.1, charts 1 and 2). Applying observed foreclosure times and imposing a minimum (market-based) investment return of 10 percent would imply a large haircut relative to net book value in some countries, such as Greece (-29 percent), Italy (-21 percent), Bulgaria (-17 percent), Croatia (-12 percent), and Portugal (-8 percent), reducing the aggregate capital relief from NPL disposal to a negative €10 billion (or 0.1 percent of GDP of selected countries at end-2014).

[2] Note that the importance of the selling price depends on the relative scale of the NPL problem. If NPL disposals are substantial, a high haircut may jeopardize the capital adequacy of the ceding bank. Also, in certain countries, the anticipation of a greater supervisory push for NPL resolution might decrease the market price of collateral, imposing additional losses on disposal that are not captured by this calculation.

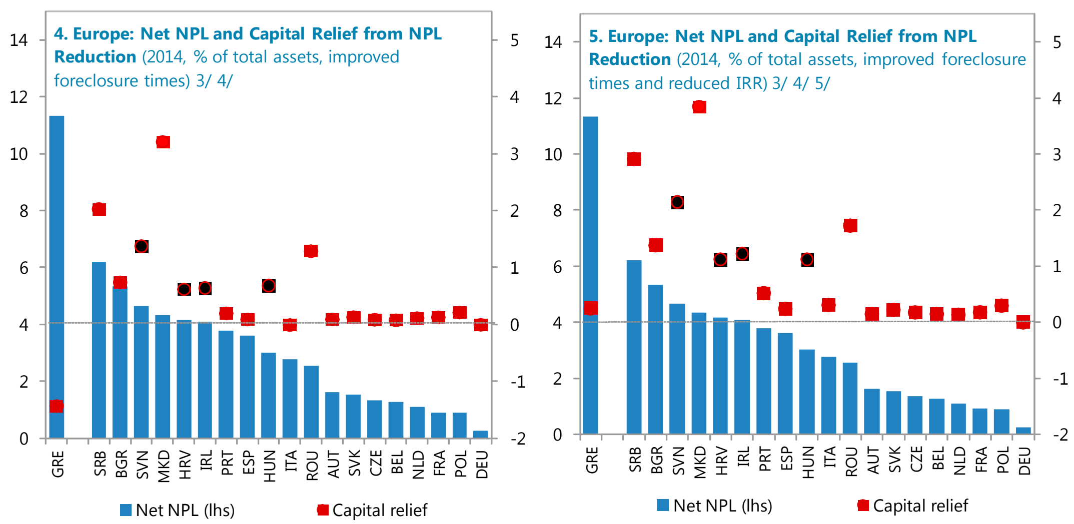
Figure V.1. Capital Relief using Country-Specific Haircuts





Summary of Results

	Capital relief		
Uniform haircut	EUR bln	% TA	% GDP
-10%	-6	0.0	-0.1
-5%	24	0.1	0.2
no haircut	54	0.2	0.5
Country-specific haircut, based on			
10% IRR and full foreclosure time	-10	0.0	-0.1
10% IRR and foreclosure time reduced by 2 yrs.	19	0.1	0.2
5% IRR and foreclosure time reduced by 2 yrs.	62	0.2	0.6



Sources: Bankscope; EBA; ECB; Haver Analytics; national central banks; and IMF staff calculations. Note: calculations based on bank-by-bank data from the EBA Transparency Exercise (2013), with NPLs reduced to historical average and capital adequacy ratio (CAR) of 16.0 percent. TA=total assets of sample banks. 1/ Assuming variable expected return of distressed debt investors at the following (unchanged) foreclosure times: ITA=4.5 yrs., BUL=4.0 yrs., HRV=3.5 yrs., and PRT=2.0 yrs. 2/ 1/ Assuming an expected return of distressed debt investors of 10 percent (IRR) and variable foreclosure times. 3/The results for Cyprus are not shown for formatting reasons. 4/ For the country-specific haircut, the foreclosure time is assumed to decline by up to 2 years for countries with foreclosure times longer than two years (Bulgaria, Croatia, Cyprus, Czech Republic, Greece, Hungary, Italy, Macedonia, Poland, Romania, Serbia, Slovak Republic, and Slovenia) as a result of current/potential structural reforms. 5/ Return expectations of external investors are halved, so that IRR=5 percent.

VI. IMF SURVEY ON OBSTACLES TO NPL RESOLUTION[1]

1. **Design and participants**. The *Survey on Obstacles to NPL/Distressed Debt Resolution* included two parts: (i) *country survey*, completed by country authorities and (ii) *bank survey*, completed by cross-border banking groups operating in the jurisdictions covered in the country survey. The countries that were targeted for inclusion in the survey were those where NPLs (or NPEs) exceeded 10 percent of total loans (or total assets) at any point during 2008-2014. The country survey was completed by 19 countries, including 9 euro area members (Cyprus, Greece, Ireland, Italy, Latvia, Lithuania, Portugal, Slovenia, and Spain) and 10 non-euro area countries (Albania, Bosnia and Herzegovina (from two separate jurisdictions), Croatia, Hungary, Iceland, Romania, Macedonia, Montenegro, San Marino, and Serbia). The bank survey was completed by 10 banking groups (Alpha Bank, Intesa, NBG, Piraeus, Pro Credit, Raiffeisen, Societe Generale, Unicredit, Eurobank, and Erste Group). [2]

2. **Scope of country and bank surveys**. Both surveys covered *five broad areas of potential obstacles to NPL resolution*: (i) informational obstacles; (ii) deficiencies in the insolvency and debt enforcement systems; (iii) challenges related to supervision and banks' capacity to manage NPLs; (iv) obstacles to distressed debt market development; and (v) tax and other obstacles. The country survey was the most comprehensive, collecting both qualitative views and detailed factual information on different types of obstacles, whereas the bank survey included only qualitative questions:

- *Qualitative questions* (country and bank surveys). In each of the five areas, respondents were asked to provide their views regarding the level of concern (high, medium, low/no concern or unknown) as well as their views about different aspects of the problem (e.g., the informational obstacles to NPL resolution included such aspects as the quality of public registers, availability of debt counseling and outreach, quality of supervisory reporting, consumer and data protection, and the setup of auctions). In all cases, the respondents were also asked to provide detailed comments on the nature of their concern. The *obstacle scores* for the five broad areas were constructed based on both country and bank survey and are presented in Figure VI.1 (in view of the sensitivity of this information, the country names are replaced with the "EA" and "NEA" labels that refer to "euro area" and "non-euro area" countries, respectively. For some areas, in addition to the overall obstacle scores, average scores reflecting the degree of concern about specific areas were constructed as well (see Figure VI.2).

- *Factual questions* (country survey). In addition to qualitative views, the country survey also aimed to gather factual information regarding specific obstacles to NPL resolution. Most questions were designed to highlight the presence or absence of a specific impediment, requiring a yes/no response—both questions and responses are presented in Tables VI.1-4 below. For example, in order to identify specific limitations of public registers, the survey included factual questions on

[1] Prepared by Wolfgang Bergthaler (LEG), Anna Ilyina, Dmitriy Kovtun, Pablo Lopez-Murphy (all EUR) and Dermot Monaghan (MCM), with assistance from Gilda Ordonez-Baric (EUR).

[2] The authors are grateful to the colleagues from the European Investment Bank (especially, Luca Gattini) for their help with the bank survey.

the quality of credit bureaus, limitations of the cadastral system, and deficiencies in the public asset and real estate transaction registers.[3]

3. **Broad takeaways from the IMF Survey on Obstacles to NPL/distressed debt resolution:**

- *Relative severity of obstacles by area*: legal framework and distressed debt markets are the two areas where obstacles to NPL resolution are, on average, perceived to be most severe. That said, the obstacle scores in the other three areas – information, supervisory and taxation – are not significantly lower (Figure VI.1).

- *Authorities' views vs. banks' views*: the country authorities tend to have higher degree of concern about institutional obstacles to NPL resolution than banks, suggesting that the authorities' assessments are fairly conservative. There is only one country for which the overall obstacle score based on the bank survey is above the one based on the country survey (Figure VI.1).

- *Euro area vs. non-euro area countries*: on average, the differences in perceived severity of institutional obstacles between euro area and non-euro area countries are fairly minor in the areas of information and supervision. However, in the distressed debt market, legal and tax areas, the obstacles are seen as more severe in non-euro area countries (Figure VI.1).

- In each of the five broad areas, respondents tend, on average, to be more concerned about certain institutional impediments (Figure VI.2):

    - *Information*: deficiencies in public registers are viewed as posing more serious challenge for NPL resolution than other informational obstacles;

    - *Legal framework*: the degree of concern about the overall judicial system is generally higher than the degree of concern about corporate or personal insolvency frameworks. The degree of concern about deficiencies in the insolvency frameworks (especially for households) appears to be notably higher in the non-euro area countries than in the euro area countries.

    - *Bank supervision*: collateral-related issues are of greater concern than banks' capacity to manage NPLs or banks' capitalization.

- The IMF survey-based scores are broadly consistent with similar indicators provided by other international organizations (e.g., the correlation between the IMF survey-based legal obstacle score and an average of the World Bank Doing Business (WBDB) indicators on the insolvency frameworks and contract enforcement is around 45 percent – see Figure VI.2).

- Institutional deficiencies that hamper a speedy resolution of NPLs tend to be linked. For example, Figure VI.2 shows that informational deficiencies and other institutional obstacles tend to be significantly positively correlated.

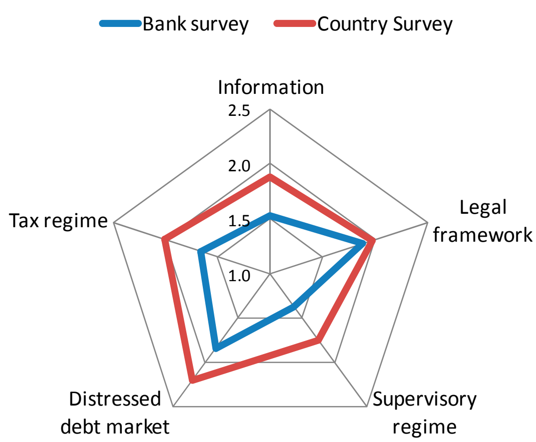
[3] As the surveys were sent in Q1 2015 and responses were received by June 2015, the responses may not capture subsequent changes.

Figure VI.1. IMF Survey-based Scores on Obstacles to NPL Resolution: by Country and Area

Countries ("EA" = euro area; "NEA" = non-euro area)	EA	NEA	NEA	EA	NEA	NEA	NEA	NEA	NEA	EA	NEA	NEA	EA	NEA	EA	NEA	EA	EA	EA	EA	Average score
Information																					
-- country survey	2.6	2.0	1.8	2.4	1.7	1.8	1.8	2.0	1.3	2.2	1.8	1.8	1.4	2.0	1.8	1.8	1.8	1.0	1.2	1.0	1.8
-- bank survey	2.5	1.5	1.7	1.9		1.5	1.7	1.9			1.7	1.3		1.4	1.1		1.0	1.0			1.5
--max (country, bank)	2.6	2.0	1.8	2.4	1.7	1.8	1.8	2.0	1.3	2.2	1.8	1.8	1.4	2.0	1.8	1.8	1.8	1.0	1.2	1.0	1.8
Legal framework																					
-- country survey	3.0	2.5	2.0	2.3	2.0	2.3	2.0	3.0	2.0	2.5	2.0	2.0	2.3		1.0	1.7	1.5	2.0	1.0	1.0	2.0
-- bank survey	2.5	1.7	2.1	2.4		1.7	2.1	2.0			2.0	1.6		1.7	1.4		1.7	1.7			1.9
--max (country, bank)	3.0	2.5	2.1	2.4	2.0	2.3	2.1	3.0	2.0	2.5	2.0	2.0	2.3	1.7	1.4	1.7	1.7	2.0	1.0	1.0	2.0
Supervisory framework																					
-- country survey	2.5	2.3	2.0	1.5	2.3	1.8	1.8	1.5	1.5	2.0	1.3	1.5	1.8	2.0	2.0	1.5	1.5	1.3	2.0	1.0	1.7
-- bank survey	1.9	1.4	1.7	1.8		1.4	1.5	1.4			1.3	1.1		1.2	1.2		1.0	1.0			1.4
--max (country, bank)	2.5	2.3	2.0	1.8	2.3	1.8	1.8	1.5	1.5	2.0	1.3	1.5	1.8	2.0	2.0	1.5	1.5	1.3	2.0	1.0	1.8
Distressed debt market																					
-- country survey	3.0	3.0	2.0		3.0	3.0	3.0	1.0	3.0	2.0	2.0		3.0	2.0	2.0	1.0		1.0	2.0	1.0	2.2
-- bank survey	2.0	1.8	2.7	2.7		1.8	1.5	2.0			2.5	2.0		1.6	1.7		1.0	1.0			1.9
--max (country, bank)	3.0	3.0	2.7	2.7	3.0	3.0	3.0	2.0	3.0	2.0	2.5	2.0	3.0	2.0	2.0	1.0	1.0	1.0	2.0	1.0	2.2
Tax regime																					
-- country survey	3.0			2.0	2.0	2.0	2.0		2.0	1.0	2.0		1.0		1.0	2.0	2.0		1.0	1.0	1.7
-- bank survey	2.5	1.6	2.8	1.3		1.6	1.5	1.8			1.3	2.3		1.2	1.3		2.0	2.0			1.8
--max (country, bank)	3.0	1.6	2.8	2.0	2.0	2.0	2.0	1.8	2.0	1.0	2.0	2.3	1.0	1.2	1.3	2.0	2.0	2.0	1.0	1.0	1.8
Overall obstacle score																					
-- country survey	2.8	2.4	2.0	2.1	2.2	2.2	2.1	1.9	2.0	1.9	1.8	1.8	1.9	2.0	1.6	1.6	1.7	1.3	1.4	1.0	1.9
-- bank survey	2.3	1.6	2.2	2.0		1.6	1.7	1.8			1.8	1.6		1.4	1.3		1.3	1.3			1.7
--avg (max (country, bank)	2.8	2.3	2.3	2.3	2.2	2.2	2.1	2.1	2.0	1.9	1.9	1.9	1.9	1.8	1.7	1.6	1.6	1.5	1.4	1.0	1.9

Notes: "EA" = euro area country; "NEA" = non-euro area country. "Country survey" refers to the survey of country authorities and "Bank survey" refers to the survey of banking groups with operations in the countries included in the country survey; "3" = High degree of concern, "2" = Medium degree of concern; "1" = no concern' "grey" =unknown or missing responses. Max (country, bank) shows the max score from country and bank survey; for the purposes of max calculations and where neither country nor bank survey responses were available, the IMF country teams' assessments were used instead (values shaded in grey).

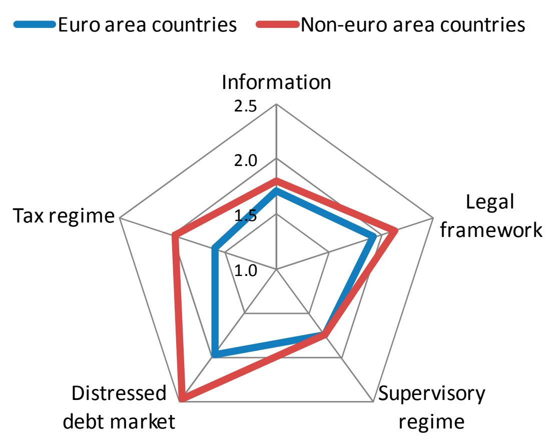
Average Scores on Obstacles to NPL Resolution: Country Survey vs. Bank Survey



Note: the scores are simple averages for the countries for which both country and bank responses were available

Source: IMF surveys of country authorities and banks.

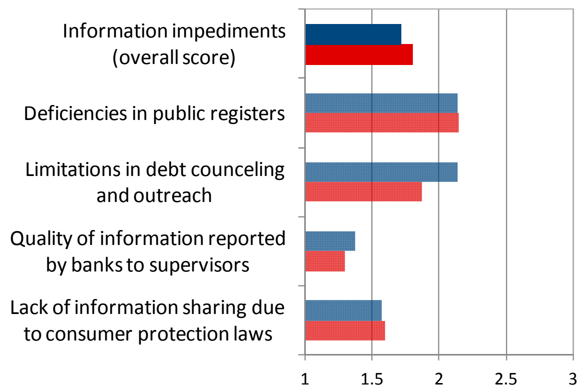
Average Scores on Obstacles to NPL Resolution: Euro Area vs. Non-euro Area Countries



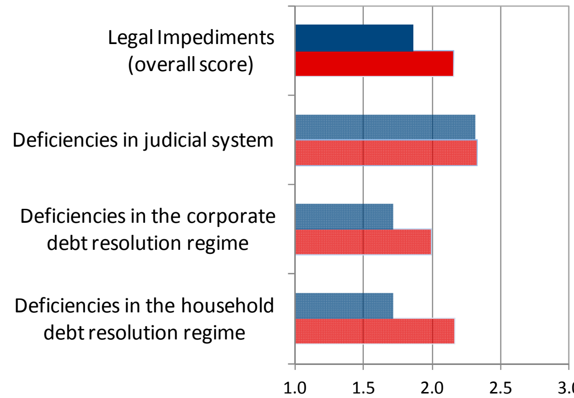
Note: the chart is based on Max (country,bank) from Table above

Figure VI.2. IMF Survey-based Scores on Obstacles to NPL Resolution: by Area

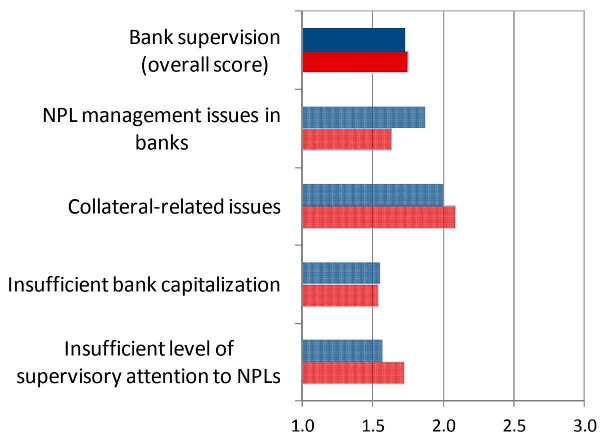
("3" = High degree of concern; "1" = no concern)
euro area (blue); non-euro area countries (red)



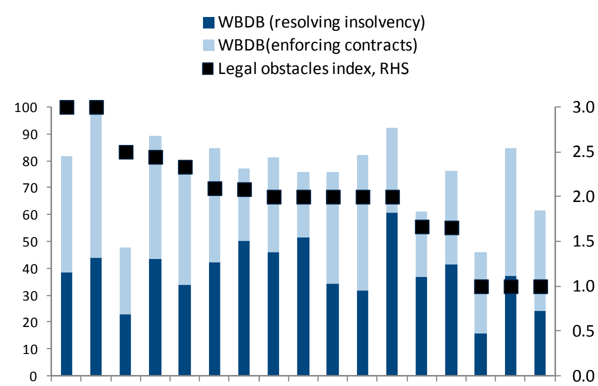
("3" = High degree of concern; "1" = no concern)
euro area (blue); non-euro area countries (red)



("3" = High degree of concern; "1" = no concern)
euro area (blue); non-euro area countries (red)

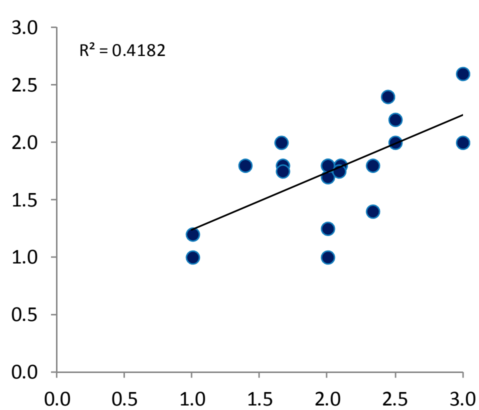


The WBDB insolvency/legal scores and the IMF survey-based legal obstacles score

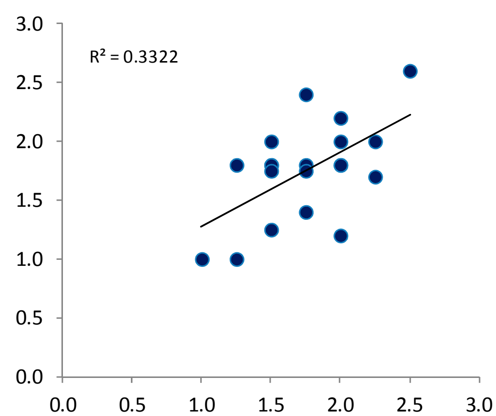


Note: the WBDB scores refer to the distance to best performers and range between 0 and 100, e.g., a score of 25 indicates that a country is 25 percentage points away from the best performer.

Correlation of Information and Legal Obstacle Scores
("3" = High degree of concern; "1" = no concern)



Correlation of Information and Supervisory Obstacle Scores
("3" = High degree of concern; "1" = no concern)



Sources: IMF Survey and World Bank Doing Business Indicators

Table VI.1. Obstacles to NPL/Distressed Debt Resolution Related to Information Availability

(in percent of respondents)

	All countries			Euro area countries			Non-euro area countries		
	NO	YES	N.A.	NO	YES	N.A.	NO	YES	N.A.
1. PUBLIC REGISTERS									
1.1 LIMITATIONS OF CREDIT BUREAUS:									
Are taxes and social security payments included?	80	20	0	78	22	0	82	18	0
Are payments to utilities companies included?	70	30	0	67	33	0	73	27	0
Is information on connected borrowers (family or business links) included?	50	40	10	33	67	0	64	18	18
Is information on trade credits included?	50	50	0	44	56	0	55	45	0
Is there credit scoring for individuals?	65	35	0	78	22	0	55	45	0
Is there credit scoring for SMEs?	55	45	0	56	44	0	55	45	0
Is there credit scoring for companies?	55	45	0	56	44	0	55	45	0
Is there a requirement on the frequency of updating the credit info?	5	90	5	0	100	0	9	82	9
Is the use of credit info systems a part of the regular process providing credit?	0	100	0	0	100	0	0	100	0
1.2. LIMITATIONS OF CADASTRAL SYSTEM									
Is it centralized? (e.g. digital/online as opposed to paper-based)?	35	60	5	22	78	0	45	45	9
Does it cost less than €10 to conduct a credit search on an individual?	10	90	0	22	78	0	0	100	0
Does it cost less than €25 to conduct a credit search on a business?	10	90	0	22	78	0	0	100	0
1.3 LIMITATIONS OF PUBLIC ASSET REGISTER									
Does it identify the owner and the asset characteristics?	10	70	20	22	67	11	0	73	27
Are the registers available to the public to conduct searches?	35	55	10	22	78	0	45	36	18
1.4 LIMITATIONS OF REAL ESTATES TRANSACTION PRICE PUBLIC REGISTERS									
Are prices of all residential real estate transactions included?	30	60	10	11	89	0	45	36	18
Are prices of all commercial real estate transactions included?	35	55	10	22	78	0	45	36	18
Is detailed description of property characteristics included?	35	55	10	33	67	0	36	45	18
Is information updated at least monthly?	30	55	15	33	56	11	27	55	18
Is the general public able to conduct searches?	50	40	10	33	56	11	64	27	9
Are the costs to conduct a search less than €10 on average?	10	60	30	0	67	33	18	55	27
2. DEBT COUNCELING AND OUTREACH									
Is there a free or subsidized personal budgeting service?	70	20	10	67	33	0	73	9	18
Is there a free or subsidized legal advice services for indebted households?	65	25	10	67	33	0	64	18	18
Is there an institution that provides credit management training/ advice for SMEs?	55	30	15	33	56	11	73	9	18
3. SUPERVISORY REPORTING									
Do banks report using EBA NPL reporting templates?	40	60	0	11	89	0	64	36	0
Are banks required to report to supervisor beyond basic EBA NPL reporting requirements?	25	75	0	11	89	0	36	64	0
4. CONSUMER AND DATA PROTECTION									
Absence of restrictions on sharing of personal info for debt workout purposes?	65	30	5	67	33	0	64	27	9
5. REAL ESTATE SALES/AUCTIONS									
Are bilateral sales permitted for repossessed assets?	15	80	5	22	78	0	9	82	9
Is information on upcoming sales/auctions publicly available?	5	90	5	11	89	0	0	91	9
Absence of any blanket bans on sales/auctions?	35	50	15	33	56	11	36	45	18

Notes: for negative responses, questions where percentage of respondents exceeded 75 percent are highlighted in red, and those between 50 and 75 percent - in yellow.

Table VI.2. Obstacles to NPL/Distressed Debt Resolution Related to Legal Framework

(in percent of respondents)

	All countries			Euro area countries			Non-euro area countries		
	NO	YES	N.A.	NO	YES	N.A.	NO	YES	N.A.
1. CORPORATE INSOLVENCY REGIME									
Is there a bankruptcy/insolvency regime (credible threat of bankruptcy)?	5	85	10	0	100	0	9	73	18
Do claims of private secured creditors have seniority over public sector claims?	25	55	20	33	44	22	18	64	18
Do private unsecured claims have priority over public sector claims?	50	30	20	56	44	0	45	18	36
Can public creditors agree to partial debt servicing?	10	65	25	11	89	0	9	45	45
Is there a process for clearance of arrears to public sector (e.g., tax, social security authorities)?	15	55	30	0	89	11	27	27	45
Is there a process for clearance of arrears to public sector linked to the private sector restructuring?	30	40	30	11	67	22	45	18	36
Are there pre-pack procedures for fast approval of debtor/creditor agreed restructuring plans?	35	45	20	33	67	0	36	27	36
Is there an out-of-court settlement mechanism?	25	55	20	22	78	0	27	36	36
Are there special in-court and out-of-court procedures for micro and small enterprises?	45	35	20	33	67	0	55	9	36
Is it possible to limit shareholders' decisions as part of business restructuring (e.g., can creditors agree to debt-to-equity conversion against the will of the shareholders)?	45	35	20	56	44	0	36	27	36
Is it possible to change the company's management in all debt restructuring procedures?	35	45	20	67	33	0	9	55	36
Can assets of a company (under debt restructuring) be sold through auctions?	15	60	25	22	78	0	9	45	45
Can assets of a company (under debt restructuring) be sold through open-market bilateral sales?	10	65	25	11	89	0	9	45	45
2. HOUSEHOLD INSOLVENCY REGIME									
Is there a bankruptcy regime (credible threat of bankruptcy) for consumers/households?	35	45	20	11	89	0	55	9	36
Are individual entrepreneurs eligible for that process (as opposed to only households)?	15	50	35	22	78	0	9	27	64
Is there an out-of-court settlement/mediation mechanism?	35	40	25	56	33	11	18	45	36
3. JUDICIAL SYSTEM									
Are there specialized courts or judges that only deal with insolvency issues?	35	60	5	56	44	0	18	73	9
Are personal insolvency related court fees/charges within a reasonable range?	40	35	25	22	67	11	55	9	36
Do insolvency administrators require professional certification?	10	80	10	11	89	0	9	73	18
Is remuneration of insolvency practitioners conditional on asset liquidation?	30	50	20	56	44	0	9	55	36
Are there set time requirements for insolvency process?	35	55	10	0	100	0	64	18	18

Notes: for negative responses, questions where percentage of respondents exceeded 75 percent are highlighted in red, and those between 50 and 75 percent - in yellow. For "N.A" responses, questions where percentage of respondents exceeded 30 percent are highlighted in grey.

Table VI.3. Obstacles to NPL/Distressed Debt Resolution Related to Supervisory Framework

(in percent of respondents)

	All countries			Euro area countries			Non-euro area countries		
	NO	YES	N.A.	NO	YES	N.A.	NO	YES	N.A.
1. BANKS									
1.1 NPL MANAGEMENT ISSUES									
Do most banks have dedicated NPL workout units or separate NPL management?	0	100	0	11	89	0	0	100	0
Are banks able to outsource NPL management (special servicers, agreements with asset managers)?	25	70	5	33	67	0	27	64	9
Are banks required to have NPL management strategies/action plans?	15	85	0	22	78	0	18	82	0
Are banks required to have operational targets for NPL reduction?	70	30	0	78	22	0	64	36	0
Is there a mechanism for interbank coordination on individual debtor cases?	45	55	0	67	33	0	27	73	0
is there a mechanism for coordination between private and public creditors on individual debtor cases?	70	25	5	78	11	11	64	36	0
Have any of the following restructuring tools been used during 2012-14:									
-interest only loans	20	55	25	22	67	11	18	45	36
-debt-to-equity swaps	40	30	30	56	22	22	27	36	36
-reducing repayments by warehousing a proportion of debt	30	45	25	44	44	11	18	45	36
-performance based write-off of a proportion of the debt	30	35	35	44	22	33	18	45	36
-other tools	35	20	45	44	22	33	27	18	55
Have any of the following mechanism of NPL disposals have been used during 2012-14:									
-portfolio sales	20	65	15	44	44	11	9	73	18
-transfer to private asset management companies	45	30	25	67	22	11	27	36	36
-transfer to public asset management companies	70	15	15	67	22	11	73	9	18
1.2 COLLATERAL AND RELATED ISSUES									
Are collateral valuations typically based on market prices (as opposed to tax or last transaction value)?	15	85	0	33	67	0	9	91	0
Is there a requirement to apply a real estate valuation standard (e.g. RICS or IVS)?1	30	65	5	33	67	0	27	64	9
1.3 CAPITAL ADEQUACY	0	0	0	0	0	0	0	0	0
Have banks been subject to granular asset quality reviews during 2012-14?	10	85	5	11	89	0	18	73	9
Have banks been able to fulfill any capital needs by tapping the private markets?	30	70	0	33	67	0	36	64	0
Have banks been forced to dispose of assets in order to deleverage?	65	35	0	44	56	0	82	18	0
Does the regulator assess the conservatism and consistency of loan loss provisions during on-site inspections?	5	95	0	22	78	0	0	100	0
2. SUPERVISORS									
Have supervisors undertaken a thematic review of banks' NPL management capacity during 2012-14?	15	80	5	22	67	11	18	82	0
Have supervisors issued formal guidelines to banks on NPL management practices?	35	65	0	22	78	0	55	45	0
Does the on-site supervision team include specialists/advisors with NPLs?	60	40	0	56	44	0	73	27	0
Have supervisors increased capital charges for NPLs?	85	15	0	89	11	0	82	18	0
Have supervisors imposed time limits on how long NPLs can be carried on banks' balance sheets?	75	25	0	89	11	0	64	36	0
Have supervisors incentivized banks to reduce reliance on collateral through increased provisioning?	50	50	0	78	22	0	27	73	0
Have supervisors incentivized banks to reduce reliance on collateral through assessment of valuation practices?	25	75	0	44	56	0	18	82	0
Is there a licensing and regulatory regime in place to enable non-banks to own or manage NPLs?	75	25	0	78	22	0	82	18	0

Notes: for negative responses, questions where percentage of respondents exceeded 75 percent are highlighted in red, and those between 50 and 75 percent - in yellow. For "N.A" responses, questions where percentage of respondents exceeded 30 percent are highlighted in grey.

Table VI.4. Obstacles to NPL/Distressed Debt Resolution Related to Distressed Debt Market, Taxation and Other Institutional or Policy Issues

(in percent of respondents)

	All countries			Euro area countries			Non-euro area countries		
	NO	YES	N.A.	NO	YES	N.A.	NO	YES	N.A.
1. MARKET FOR NPLs/DISTRESSED DEBT									
Are third party banks, including foreign banks, allowed to buy NPLs from domestic banks?	10	85	5	22	67	11	9	91	0
Are institutional investors allowed to buy NPLs from domestic banks?	10	75	15	33	56	11	0	82	18
Are foreign institutional investors allowed to buy/own NPLs?	20	70	10	33	56	11	18	73	9
Do special servicing firms operate in the country?	25	60	15	33	56	11	27	55	18
Can banks sell denounced loans (i.e., legally and economically written off)?	15	75	10	22	56	22	18	82	0
Can banks set up private asset management companies in cooperation with investment firms?	5	85	10	11	78	11	9	82	9
2 OTHER INSTITUTIONAL AND POLICY OBSTACLES									
2.1 TAXATION									
Are there tax deductions for loan loss provisioning?	20	75	5	33	56	11	18	82	0
Is there a tax loss carry forward mechanism such as a deferred tax asset?	35	65	0	22	78	0	55	45	0
Are there tax deductions for loan write-off?	60	40	0	56	44	0	73	27	0
Are there tax deductions for collateral sale?	75	25	0	78	22	0	82	18	0
Debtors are not charged capital gains taxes upon debt write-off/restructuring of their debts at more favorable terms	40	40	20	67	33	0	27	36	36
Can public creditors provide debt write-off?	75	25	0	89	11	0	64	36	0
2.2 OTHER INSTITUTIONAL OR POLICY ISSUES									
Are there blanket bans (moratoria) on foreclosures or auctions?	45	25	30	33	44	22	55	9	36
Were there any specific measures to tackle debtors that can afford to pay but choose not to?	45	25	30	44	33	22	55	9	36

Notes: for negative responses, questions where percentage of respondents exceeded 75 percent are highlighted in red, and those between 50 and 75 percent - in yellow. For "N.A" responses, questions where percentage of respondents exceeded 30 percent are highlighted in grey.

VII. INTEREST ACCRUAL ON NPLS[4]

7. **The International Financial Reporting Standards (IFRS) of the International Accounting Standards Board (IASB) allow accrual of interest income on NPLs.** Accrual accounting assumes that income is recorded in the period earned rather than in period of the cash flow; however, interest accruals can lead to distortions of financial statements due to the following issues:

- *Interest income is recorded even though the borrower does not repay.* This practice of capitalizing interest repayments distorts interest income and associated metrics (e.g., net interest margin) since full and timely interest payments are not received.

- *NPLs increase from the accrual.* Since unpaid interest is capitalized as part of the loan balance, NPLs grow at the rate of uncollected interest. For large, seriously delinquent NPL levels, the accrual can be substantial.

- *Provision coverage loses meaning.* Since there is a matching provision to the interest accrual, the adequacy of general loan loss provisions becomes difficult to judge, which may delay management's recognition of actual loan deterioration.

8. **Remedial measures include:**

- *Improving transparency*. Require that banks disclose separately (i) the increase in NPLs due to loan deterioration (i.e., deterioration in the borrowers' ability to repay loan principal) and that which is from the accrual of interest income; (ii) the allocation of the provisions by the amount dedicated to original loan principal and that for interest accrual.

- *Adopting a sound non-accrual principle*. Interest accrual should be suspended after a certain period of time (consistent with an appropriate definition of an NPL (e.g., an impairment trigger or days past due – 90 or 180 days).

- *Charge-off/write down of uncollectible portions of NPLs*. Require prompt charge off/write down of uncollectible credits (both in terms of accrued interest and principal). To improve discipline, make such a process rules-based using passage of time from when the payments are owed and unpaid (e.g., 180 or 365 days past due). For this measure to be effective, the legal framework must ensure that the bank retains judicial title and can collect on the loan—including through loan sales—after charge-off.

[4] Prepared by Michael Moore and Novia Saca Saca (both MCM).

VIII. THE REGULATORY TREATMENT OF NPLS IN THE UNITED STATES—EARLY LOSS RECOGNITION[5]

1. **There are significant differences in the approach to recognizing loan losses through provisions between IFRS (as applied in Europe) and GAAP (as practiced in the United States).** Both apply the *incurred loss approach* (FSF, 2009), but although the accounting standards are comparable, a key difference is the regulatory requirement that overlays the accounting standard. This overlay limits the discretion that bank managers have in applying GAAP. This results in a more conservative U.S. GAAP treatment of NPLs for banks than is the case under IFRS.

2. **There are two key regulatory requirements that are imposed in the United States.** Banks must (i) suspend and reverse interest income on NPLs once the loan is 90 days past due on any payment or is deemed uncollectible in whole or in part (i.e., the non-accrual principle);[6] and (ii) promptly charge off/write down the loan balance on the bank's accounting statements to the recoverable collateral value after six months.

3. **For a charge-off, any loan balance that exceeds the recoverable value (less the cost to sell) should be charged against the loan loss reserve.** In determining the collateral value, it should be today's "spot price" with no adjustment for forecasted increase in collateral values. The act of charging-off the loan should not be confused with the forgiveness of the borrower's debt. The bank must still be judged on its ability to collect defaulted loans, including through loan sales.

4. **A nonaccrual loan may be returned to accrual status after the borrower has made a series of contractual payments.** This improvement in the borrowers' condition may arise from a modification of lending terms. However, given the concern that liberal modification leads to misstatement of loan portfolio condition, modification practices are subject to close regulatory scrutiny. There must be sound internal control processes governing any modification, and management information systems must monitor and verify that the modifications are working.

5. **The effect of this treatment is that banks will recognize credit losses sooner in a weakening credit cycle.** This aids earlier recovery (or failure if capital is insufficient), as evident in the recent crisis—though severe, system NPLs peaked at 5 percent of loans in 2009, and have since declined to less than 2 percent. The charge-off requirement removes the disincentives to bank sales of NPLs, contributing to earlier price discovery for NPLs and underlying collateral. Also tax incentives encourage early write offs since provisioned loan losses are not tax deductible.

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[5] Prepared by Michael Moore and Nolvia Saca Saca (both MCM).

[6] The exception to the non-accrual treatment applies if the loan is secured and in the process of collection, i.e., legal or other action is proceeding that will result in recovery or restoration to a current status.

IX. BUILDING BLOCKS FOR EFFECTIVE ARREARS MANAGEMENT[7]

6. **Banks need to embark on a comprehensive process to manage NPLs.** During normal times, arrears management constitutes only a small fraction of a bank's activities, and is often handled on an ad-hoc basis with little or no standardization. A growing number of NPLs requires establishing policies, operational processes, skills and staffing to ensure swift workout and to prevent a further deterioration of the loan portfolio.

7. **A segmentation of the overall NPL portfolio is necessary to pursue targeted resolution strategies.** Policies and processes to be applied in managing distressed loans will depend on their characteristics. Rather than following a case-by-case approach, exposures can be segmented along common criteria, such (i) size and "vintage" of arrears, (ii) the type of exposure (e.g., mortgage vs. consumer loan) and the kind of counterparty (private individual, SME vs. corporate), and (iii) the risk inherent to a distressed loan. Segmentation can also be useful to prioritize a bank's arrears management activities, taking into account the impact on a bank's balance sheet and constrained operational resources.

8. **Restructuring policies need to foster sustainable, long-term solutions.** While forbearance measures, such as grace or interest-only periods, can help mitigate temporary cash shortages in an uncertain economic environment, they are not effective for addressing a protracted reduction in a borrower's debt servicing capacity. For each lending segment, appropriate "strategy templates" need to be developed aimed at restoring the long-term viability of a loan, or, where this is not possible, liquidating the exposure. This includes standardized methodologies to assess the current and future financial situation of a delinquent borrower.

9. **Organization and processes need to be optimized for arrears management activities.** A bank's demonstrated ability to engage sets adequate incentives for borrowers to cooperate. Quick action on early arrears can moderate further asset deterioration and allow for implementation of restructuring solutions without undue delay. To achieve this, the arrears management process will need to be standardized and industrialized in particular in those lending segments with a high number of cases. This includes the setup of specialized call centers to act as first point of contact to borrowers, teams that specialize on particular lending segments and process steps (such as early arrears, late arrears, restructuring or recovery) and teams concentrating on high-value, high-risk and high-complexity cases that require tailor-made restructuring solutions. Banks should also consider on-boarding external expertise and supplementing their operational capacity through carefully supervised outsourcing.

[7] Prepared by Oliver Wünsch (MCM).

10. **Technology has an important role in supporting the arrears management staff.** A bank's usual IT system lacks the relevant specialized functionality to manage large NPL portfolios, and, thus, often need to be augmented to deliver a maximum degree of automation. This includes monitoring of borrowers' performance, tools to automate the assessment of the borrower's financial situation and the adequacy of loan modifications at single loan and portfolio level, and workflow management tools to track a large number of cases while minimizing paper work.

11. **The arrears management performance needs to be continuously monitored to identify needs for adjustments to policies and processes.** Balance sheet indicators move too slowly to be effective. Instead, a set of operational (such as numbers of cases agreed with the borrower) and financial (such as cash collections) indicators is needed that allow for more immediate feedback. These indicators should allow for monitoring of performance at all levels of the organizational hierarchy, and also be used to define forward-looking targets consistent with the bank's capital planning and provisioning framework.

X. KEY RECENT REFORMS TO INSOLVENCY REGIMES IN SELECTED EUROPEAN COUNTRIES: CORPORATE INSOLVENCY LAW[8]

BULGARIA
The **2013 amendments to the insolvency regime** limit the backdating of insolvencies and clarify the rules for the set off and for avoidance of certain transactions. Specifically, the trustee or any creditor in case of failure of the trustee can bring avoidance actions and claim repayment of annulled transactions within 1 year as of opening of the start of the bankruptcy proceedings.
CROATIA
A **2012 law** introduced pre-insolvency settlement proceedings into the insolvency regime. Debtors can reach a restructuring plan with creditors which has to be approved by a judge and which may include measures such as the write-off of parts of the creditors' claims, a debt-to-equity swap, the extension of repayment period, a decrease of interest rates, changes in the security instruments, a corporate restructuring of the debtor, and the introduction of strategic partners in the shareholding structure.
CYPRUS
A voluntary out-of-court **mediation** process for financial disputes has been established under the financial Ombudsman of Cyprus. The amendments to the Companies Act in **2015** reformed the procedure for winding-up non-viable companies, notably to redefine the commencement criteria, including a company's "inability to pay" its debts, and shorten the length of the procedure. In addition, examinership was introduced to allow for reorganization of viable companies. Examinership allows for a period of protection from creditor action (initially four months) while management continues to run the business under the supervision of a court-appointed examiner. The examiner prepares a proposal for debt settlement/restructuring for the court's approval.
FRANCE
A **2012 amendment** to the insolvency regime expanded the manner in which protective measures may be used in the context of insolvency proceedings for reasons of commingling of assets, mismanagement, or the disposal of assets. A further 2012 amendment was designed to ease debt restructuring by debtors subject to bankruptcy proceedings by enabling subordination agreements amongst bondholders and making holding companies eligible for accelerated financial safeguards procedures. A **2014 amendment** significantly updated and established new insolvency proceedings. Specifically: The **pre-insolvency proceedings** (i.e., conciliation and ad hoc mandate) were amended to enhance the obligation to inform the statutory auditor and the employee works councils of pre-insolvency proceedings. The reform enables pre-packed sales of the business, amends grace periods to extend maturities to up to 2 years, grants priority to fresh money to all providers (if the plan gets approved), renders void any contractual provision that restricts the debtor's rights or increases its obligations, and designates an implementation official in charge of the implementation of the proceedings. • A new **accelerated safeguards proceeding** (*procedure de sauvegarde acceleree*) was created to encompass all creditors (different from the accelerated financial safeguards which only includes financial creditors). The

[8] This background note was prepared by Manfred Balz (external LEG expert), Wolfgang Bergthaler, Chanda DeLong, Jose M. Garrido, Amanda Kosonen, Nouria El Mehdi, and Natasha Stetsenko (all LEG). It describes selected recent insolvency reforms in EU members plus Serbia.

debtor proposed plan needs to be first approved by the requisite majority of creditors in value in a conciliation procedure. The plan must then be approved by the court within 3 months (rather than 1 month as set forth for the accelerated financial safeguards).

- The **ordinary safeguard proceedings** (*procedure de sauvegarde*) were revised to allow creditors to propose an alternative plan and the courts to call shareholders to pay their unpaid capital; enable the administrator or the creditors' committee or the public prosecutor to convert a safeguard proceeding into a reorganization if the safeguard plan is not adopted by the creditors' committees; oblige creditors' committees to disclose some information (on agreements on their vote, subordination and third party payments); and grant the administrator the possibility to convene a shareholder meeting to adopt modifications of the plan.
- Regarding the **reorganization procedure** (*procedure de redressement judiciaire*), a judicial representative may be appointed to restore shareholders' equity. In the absence of a plan, the administrator may request the court to order a partial or total transfer of the business. Payments under executory contracts are no longer permissible except in reorganization procedures.

A **law** adopted in **2015** has introduced targeted modifications to the insolvency regime, specifically:

- specialized commercial courts for insolvency cases;
- improvements in the qualifications and regime applicable to insolvency administrators;
- measures to facilitate corporate debt restructuring based on capital modifications: the law introduces the possibility of adopting capital increases and reductions (including debt-equity swaps) without the shareholders' consent, and it also recognizes the powers of the court to order a compulsory transfer of shares.

GERMANY

The protective shield proceedings—introduced into the **insolvency code in 2012**—is available only to debtors in imminent insolvency, not in actual illiquidity or insolvency, who qualify for debtor-in-possession status. The latter requires a debtor petition and absence of expected negative impact on creditors, which is evaluated by the court and a (preliminary) creditors' committee appointed by the court. The protective shield gives eligible debtors the possibility to prepare within a maximum of three months a pre-packaged restructuring plan in the opening ("interim") stage before formal commencement of insolvency proceedings under the monitoring, and with the assistance, of a mediator ("Sachwalter") and the creditors' committee. The judge may permit the debtor in this stage to create administrative claims for a subsequent formal insolvency proceeding, e.g., by fresh money borrowing. If a feasible (not manifestly inacceptable for creditors) prepackaged plan can be negotiated under the protective shield, it may be put to vote and eventually confirmed in a subsequent formal insolvency proceeding under the general provisions for voting, cram-down, and minority protection (guarantee of liquidation value for all claimants).

GREECE

A **2014 temporary law** provides for three mechanisms:

- A debtor-initiated out-of-court mechanism for small SMEs and professionals which provides for a tax benefit for banks dependent on the debt write-off granted; in addition, public creditors' claims are settled in accordance with installment schemes.
- A debtor-initiated simplified pre-pack process for large debtors which requires a 50.1% majority of creditors to approve the plan subject to court approval. Public creditors' claims are tied to restructurings under an installment scheme.
- A creditor-initiated process of special administration which enables the sale of all assets or the debtors' business by creditors subject to court supervision.

A **2015 amendment** to the **insolvency law** simplifies and strengthens the rehabilitation processes by aligning the rehabilitation processes with the 2014 temporary law, strengthening post commencement financing,

removing procedural obstacles for rehabilitation, and streamlining rehabilitation processes.
HUNGARY
In **2010**, the Hungarian Banking Association issued out-of-court **guidelines for dealing with companies in financial distress**. **2012 amendments** introduced a number of changes to the insolvency regime: • The judicial mediation program can be initiated by mutual agreement. Courts supervise the procedure and approve the final agreement. • The composition agreements provide that they are not binding on creditors who did not register their claim within the 30-day deadline from the publication of the court's decision opening the bankruptcy proceedings and that creditors cannot enforce their claims against the debtor unless a third party subsequently initiates liquidation proceedings against the debtor and the creditor's claim is not yet time-barred. • Special rules are applicable to bankruptcy and liquidation proceedings of companies declared exceptionally significant by the government (i.e., state-owned companies).
ITALY
A series of reforms took place between **2009 and 2015**, and a major reform is under study. There are multiple techniques that allow debt restructuring without resorting to a full insolvency process: • Restructuring agreements, which are designed to repay the company's outstanding debt, and are supported by a limited stay of creditor actions. Restructuring agreements need to be approved by the court and by creditors representing at least 60% of the claims. An expert gives an opinion on the feasibility of the restructuring agreement. The agreement binds the approving creditors, dissenting creditors need to receive a full payment. • Rescue plans, whose objective is to restore the company's financial equilibrium, especially in cases of illiquidity or temporary crisis. The main purpose of the legal provision is to protect the actions undertaken in a rescue plan against potential claw-back actions in a successive insolvency process. • Restructuring agreements with financial institutions. The 2015 reform has added a new restructuring tool: the possibility of reaching an agreement with financial creditors, when a company has more than 50% of its outstanding debts with financial institutions. If a majority of 75% is reached, the remaining financial creditors will also be bound by the agreement. Non-financial creditors should be paid in full. Formal insolvency procedures include liquidation and reorganization. Numerous reforms have sought to introduce more speed and flexibility in the reorganization process, and have also improved the regulation of the vote by creditors and the controls over the reorganization plan. The 2015 reform facilitates bids by third parties on the debtor's assets, by granting them access to information on the debtor's business. The reform also enables creditors holding 10% of the claims to file a composition proposal if the company's own proposal provides a repayment rate to unsecured claims lower than 40%. The multiplicity of the restructuring and reorganization mechanisms has increased the importance of rules on post-petition or bridge financing that take into account the potential gaps and interruptions between procedures, ensuring the priority of the new financing and the protection of creditors against claw-back actions. Several technical amendments have addressed this point.
LATVIA
In 2009, **out-of-court restructuring guidelines** were adopted in line with the Global Principles for Multi-creditor Workouts ("INSOL Principles"). **Legal protection proceedings** (LLP) introduced in 2010 enable the rehabilitation of viable firms which consist of (i) expedited procedures for court approval of a rehabilitation plan negotiated between parties before filing of an insolvency petition; and (ii) in-court procedures for development of a rehabilitation plan after filing a petition but before commencement of the LPP. A legal person may petition the court to initiate LPP if it meets certain conditions. A rehabilitation plan has a length of two years, which can be extended for another two years by two-thirds of secured creditors and a simple majority of unsecured creditors, and may include different

restructuring tools including debt for equity swaps or debt forgiveness. The plan covers both secured and unsecured claims, and must be approved by two-thirds of secured creditors and a simple majority of unsecured creditors based on the outstanding principal amount, provided secured claims cannot be modified without secured creditors' consent. If the debtor fails to implement the LPP plan, the law allows for a conversion of the LPP to a bankruptcy (liquidation) proceeding. The commencement of the LPP triggers a stay on all enforcement actions.

The **2015 amendments to the Insolvency law** require the management board of a company to file for insolvency in the case where a company has not settled its debts for more than 2 months; enable creditors to join a claim brought by the administrator with third party rights; consider a creditor with claim rights against a third party secured by a pledge over the debtor's property as a secured creditor; allow the substantiation of creditors' claims by a court decision in the context of simplified court procedures. In addition, insolvency administrators are now considered as public officers.

LITHUANIA

The **2012 law** provides for restructuring of companies in financial difficulty, guidelines for the plan, liabilities and discharge of liabilities, appointment of a restructuring administrator, management of the company and its assets, conditions for approval, duration of the plan, simplified procedure, termination and closure of the plan.

POLAND

A **2015 law** significantly reforms the corporate insolvency regime to refine the bankruptcy tests (both illiquidity and balance sheet test), enable pre-packs, streamline the bankruptcy proceedings, improve the protection against fraudulent conveyances, change the priority for the distribution of proceeds, provide for specific rules for certain contracts, sale of securities with re-purchase and agreement on derivative transactions, provide for a right to cherry-pick and the inoperability of contractual provisions restricting the disposal of assets after the petition for insolvency. Class voting is permitted (but may also be conducted without classes) and a cram down is allowed. Four restructuring procedures for insolvent debtors have been introduced:

- **Arrangement Approval Proceedings** are debtor-in-possession procedures which are available if the disputed claims represent ≤ 15% of the claims. There is no stay on enforcement. The debtor collects creditors' votes in writing.
- **Accelerated Arrangement Proceedings** are available if the disputed claims represent ≤ 15% of the claims and allow the debtor in possession under the control of a supervisor who prepares a restructuring plan. A stay on execution is granted. Voting occurs at a creditors' meeting.
- **Arrangement Proceedings** are debtor-in-possession procedures which are available if the disputed claims represent +15% of the claims. The debtor benefits from a stay. The procedures are court supervised and the court may appoint an administrator. Voting occurs at a creditors' meeting.
- **Remedial Proceedings** provide for a stay of executions. Cherry-picking rights are permissible. It is not a debtor-in possession procedure but an administrator takes over the management of the debtor. Voting occurs at a creditors' meeting.

PORTUGAL

The **2011 Guidelines for the Extrajudicial Recovery of Debtors** provide guidance to achieve consensual debt restructuring in line with the INSOL Principles.

The **Special Recovery Procedure (PER)** introduced in 2012 is a fast track in-court mechanism to achieve restructuring plans. These are pre-insolvency procedures that provide for a stay on enforcement actions, a cram down of dissenting creditors, and enhanced priority financing. The 2012 amendment also removed the mandatory creditors' meetings and the period for holding a creditors' meeting, shortening the insolvency procedures. In 2015, the PER was amended to lower the majority requirements to approve the plan, enhance the priority of new money provided to the debtor, and end enforcement actions for the debtor's guarantors.

The 2012 **System for the Recovery of Undertakings (SIREVE)** facilitates out-of-court debt restructuring for SME's through mediation. Tax and social security administrations are required to participate but may opt out of the plan. SIREVE was amended in 2015 to, among other things, improve the viability diagnosis.

ROMANIA

The **2010 Corporate Debt Restructuring Guidelines** provide guidance to achieve consensual debt restructuring along the lines of the INSOL Principles.

The **2014 insolvency law** significantly overhauled the insolvency regime, consolidated all insolvency related matters,and introduced ad hoc mandate proceedings (i.e., a confidential pre-insolvency debtor-in-possession procedure initiated by the debtor) and the concordat preventive (i.e., debtor initiated debtor-in-possession proceeding which includes a temporary stay and majority creditor voting) and the judicial reorganization and bankruptcy under one piece of legislation. The law introduced a number of new features: (i) limits the observation period (i.e., the period in which it is assessed whether the debtor is viable and thus can be restructured) to 12 months, (ii) introduces coordinating procedures for group companies, (iii) provides for the possibility of interim measures to safeguard the debtors' assets, (iv) introduces the 'private sector test' which encourages public creditors to negotiate their claims against the debtor in the same way as private creditors as well as informing the tax authorities of any initiation of insolvency proceedings, and (v) strengthens the protection of post-commencement financing.

SERBIA

In **2010** Serbia adopted a new corporate **insolvency law**, which, *inter alia*, introduced rules on fast track reorganizations. The **2014 amendments to the insolvency law** increased transparency of the procedures; tightened requirements with regard to the supervision and licensing to insolvency administrators; limited rights of the related parties; and provided for UNICITRAL-based rules on cross-border insolvency.

In **2011** Serbia also adopted a law on **Consensual Financial Restructurings** based on the INSOL Principles. The Serbian Chamber of Commerce and Industry was assigned as an institutional mediator to administer this voluntary restructuring framework supported by the law and provide support in the negotiation process between the debtor and its creditors. The use of the framework is available to corporate debtors with two or more bank creditors.

SLOVENIA

In **2012**, out-of-court non-binding **guidelines** along the lines of the INSOL Principles were adopted.

The **2013** amendments to the insolvency **law** introduced pre-insolvency restructuring proceedings for large and medium-sized firms to restructure financial claims (including secured claims) more efficiently and speedily, with a stay on creditor actions and majority voting. Important changes to reorganization procedures (compulsory settlement) were introduced, including (i) increased control of the proceeding by financial creditors, including the ability to initiate proceedings, to introduce a plan that takes precedence over the debtor's plan, and to take management control in certain cases, (ii) an absolute priority rule to ensure that if the value of equity is zero, debtor equity will be eliminated, (iii) corporate restructuring features, including debt/equity swaps and corporate spin-offs to facilitate viable firms continuing as a going concern, (iv) secured creditors are included in the compulsory settlement process and can pool collateral under a settlement plan, (v) the write-down of collateral to market value with a corresponding conversion of the now unsecured portions of collateralized loans into unsecured claims is permitted, and (vi) the process recognizes the possibility that requisite majorities of creditors can agree to reduce principal on unsecured debt, and to extend maturity and/or to reduce the interest rate for both secured and unsecured debt.

The **2013 amendments** also introduced the simplified compulsory settlement as a streamlined reorganization procedure for micro and small enterprises, although with limited options for the restructuring of their debt. These changes have brought the framework closer to international best practices. In addition, the Slovenian system has adopted solutions similar to those used in other European economies, and has joined some emerging trends in this area, such as the facilitation of debt/equity swaps as a debt restructuring tool.

SPAIN
A **2013 law** created a new out-of-court procedure – the "out-of-court agreement on payments" or OCAP ("*acuerdo extrajudicial de pagos*") designed to solve the financial crises of small businesses, facilitated by a professional mediator. The process puts in place a stay on executions (up to 3 months max); public creditors are not affected.. The law was subsequently amended in 2015 to make it more effective and to be available to consumers (see below). A **2014 decree** (later codified into law) provides for a number of changes. With respect to **individual schemes of arrangement**, it allows a company to reach a pre-insolvency agreement with any one or more of its creditors, subject to strict criteria on content, that are not subject to avoidance action (or "claw back") in an insolvency proceeding. With respect to **collective refinancing agreements**, it strengthens the protection against avoidance actions and expands the scope of agreements to explicitly include reference to cancellation of debt (i.e., debt write offs) and other restructuring measures such as debt to equity swaps. Collective refinancing agreements with judicial approval can now be imposed on dissenting creditors upon reaching approval of requisite majorities, depending on the creditors involved and the type of agreement. Secured creditors can be included, subject to higher majority requirements. All new money granted in the context of the refinancing agreements are given priority for a period of two years from the entry of force of the reform. The decree allows for a stay of execution (subject to certain limitations) during the "pre-insolvency" period; public creditors are not included in the stay. **The 2014** and **2015 amendments** introduced further changes to the legal framework for business restructuring both in and out of court as follows: • In-court proceeding. The amendments eliminated the previous limitations on plan content (debt reductions of up to 50% of unsecured debt and reschedulings of up to 5 years). Now there is no limit to write downs and reschedulings can be up to 10 years. A new system of class voting has been introduced: creditors are divided into four classes based on "socioeconomic" factors: labor, public, financial, and a residual category "other", which are then further subdivided into two classes: those creditors with special privilege (security interest) and those with general privilege (priority). All ordinary creditors vote together in a separate class. A majority of 50% or 65% of ordinary creditors is required to approve the plan. • OCAP Procedure. The possible content of the plan has now been extended to encompass write downs/extensions beyond the prior limitations of a 25% write-down and a three year moratorium. Secured creditors may also be bound by the plan, and the majorities needed to reach an agreement have been amended. The procedure has been streamlined, channeled through the Commercial Registry, the notaries and the chambers of commerce, made more accessible by means of pre-designed forms/templates, and facilitated by an improved system of mediators. Consumers are also eligible (see below).

XI. KEY RECENT REFORMS TO INSOLVENCY REGIMES IN SELECTED EUROPEAN COUNTRIES: PERSONAL INSOLVENCY LAW[9]

CYPRUS	
Legal Framework	A **2015** amendment to the **Bankruptcy Law** introduced new procedures: Personal Repayment Schemes which enable debt restructuring of both secured and unsecured debt for natural persons who have a stable source of income, where possible, to keep some of their assets, including their primary residence. Repayment schemes approved by the required majorities of creditors become binding on all creditors upon confirmation by the court. The law also allows for court-imposed schemes where the court is satisfied that a scheme meets certain criteria, including that creditors do not receive less than what they would receive in a liquidation court.
Stay	A court-issued protective order stays creditor action for an initial period of 95 days while a debtor prepares a repayment scheme with the assistance of insolvency practitioners.
Simplified processes	Debt Relief Orders allow natural persons with virtually no income or assets to obtain a court-ordered discharge of up to 25,000 EUR of unsecured debts without creditor consent.
Discharge period	The discharge period is 3 years.
ESTONIA	
Legal Framework	A **2010 law** established a judicial restructuring procedure for individuals. A plan must be approved by a majority of creditors and the court. Secured creditors can realize their rights in rem separately.
Stay	The debtor may petition for a stay of all enforcement actions.
Discharge period	The payment period is 3-5 years.
GREECE	
Legal Framework	A **2010** law—which was amended in **2012**—introduced three processes, namely, a voluntary mediation process, a repayment plan (which must be approved by a majority of creditors), and a judicial settlement (which enables a court imposed agreement. The 2010 law was further amended in **2015** to streamline the process, clarify certain provisions related to minimum living expenses, and include public creditors' claims as dischargeable debt.
Stay	The debtor may petition for a stay of all enforcement actions.
Discharge period	The discharge period is 3-5 years.
HUNGARY	
Legal Framework	A **2015 law** establishes a personal insolvency regime and provides for a mandatory out-of-court debt settlement procedure (which must be approved by all creditors), an in-court debt settlement procedure which is mediated by a family administrator (and must be approved by the simple majority of creditors and the court), and a judicial debt settlement procedure (which enables a court imposed agreement.
Stay	The debtor may petition for a stay of all enforcement actions.

[9] This background note was prepared by Wolfgang Bergthaler, Chanda DeLong, Jose M. Garrido, Amanda Kosonen, and Nouria El Mehdi (all LEG). It describes recent insolvency reforms in selected EU members.

Discharge period	The discharge period is 5 years.
	IRELAND
Legal Framework	Ireland enacted a new Personal Insolvency **Act** in **2012** which introduced new procedures, namely (i) a Debt Settlement Arrangement, which if approved by 65% of the creditors in terms of value of the claims, provides for the settlement of unsecured debt over 5 years; and (ii) a Personal Insolvency Arrangement for debtors who are cash flow insolvent to settle secured debt up to €3 million (or more if agreed with creditors) and unsecured debt over 6-7 years which may be used once and if approved by 65% of all creditors as well as more than 50% of secured creditors and 50% of unsecured creditors. In 2015, a judicial review of creditor rejected Personal Insolvency Arrangement was introduced which may overwrite creditors' objections.
Stay	The court may grant a debtor a protective certificate against creditor enforcement actions for 70 days (extendible).
Simplified processes	Debt Relief Notice allowing for the discharge after 3 years of unsecured debt up to €20,000 for persons with essentially no income or assets which was raised to €35,000 in 2015.
Discharge period	The discharge period is 3 years.
	ITALY
Legal Framework	The **2012** law established a new framework for personal over-indebtedness. A restructuring proposal needs to be approved by the court if accepted by creditors representing 70% of the value of the debt.
Stay	The court imposes a moratorium of 120 days on creditor enforcement actions against the debtor's assets. The debtor's restructuring proposal may request a moratorium on payments of up to one year if certain conditions are met.
Discharge period	A discharge may be granted a debtor at the end of a liquidation procedure under certain circumstances.
	LATVIA
Legal Framework	A **2010 law** establishes a new insolvency framework for individuals. The law introduced a procedure under which a repayment plan closely monitored by the court is implemented in cases where individual debtors are not able to reach a voluntary agreement with creditors. The process entails bankruptcy proceedings including liquidation of the nonexempt assets of a debtor, followed by an obligation settlement procedure which entails a court approved repayment plan.
Stay	The commencement of personal insolvency proceedings stays collection and enforcement actions by creditors.
Discharge period	The discharge period is between 1 to 3.5 years.
	LITHUANIA
Legal Framework	The **2013 law** establishes a procedure for natural persons to file a restructuring plan that must be approved by the creditors, sanctioned by the court and implemented by the administrator. The law also provides for a "fast track" option where a plan and the bankruptcy petition are filed together and the court decides which to proceed with.
Stay	A general stay applies to claims by all creditors during the proceedings.
Discharge period	The discharge period is 5 years.
	POLAND
Legal Framework	The **2009 law** permits individuals to file for personal bankruptcy. The procedures focus on liquidation rather than restructuring procedures for individuals.
Stay	The law provides for a stay on creditor action against the debtor relating to claims which are

	dealt with in the bankruptcy proceedings.
Discharge period	The debtor may request a discharge after 5 years.
ROMANIA	
Legal Framework	The **2015** personal insolvency **law** introduced procedures namely the debt repayment plan and the asset liquidation (which can also be requested by creditors). It also establishes (regional and central) administrative committees for processes before the court adjudication in order to screen cases for judicial processes.
Stay	The law provides for a stay.
Simplified processes	There is a simplified insolvency procedure (for debtors who have lost 50% of the work capacity or are eligible for retirement).
Discharge period	The discharge period is 3-5 years dependent on the pay-out dividend.
SPAIN	
Legal Framework	In **2015**, Spain introduced a system to deal with the insolvency of individuals (both consumers and entrepreneurs). The system consists of two mandatory, consecutive stages: one out of court (the "OCAP" procedure) with a view to reaching a plan and, if unsuccessful, an in-court bankruptcy liquidation. After the liquidation proceeding, the debtor may apply to receive an immediate yet provisional discharge. This discharge affects (i) all outstanding unsecured and subordinated claims, with the *exception of public claims and alimonies* and (ii) the part of secured claims that remains unpaid following execution of the collateral. All non-discharged claims (*except public claims*) are then subject to a payment plan that lasts up to five years. A final discharge is generally granted upon compliance with the payment plan, but may be revoked for up five years if various types of fraud are discovered.
Stay	There is a stay on executions (up to 3 months max).
Discharge period	An immediate but provisional discharge is granted, subject to compliance with a payment plan for non-discharged claims (except for public claims) that can last *up to* 5 years. Final discharge is generally granted upon compliance with the payment plan, but can be revoked up to five years after the provisional discharge if various types of fraud are discovered.

XII. TREATMENT OF PUBLIC CREDITORS' CLAIMS IN CORPORATE DEBT RESTRUCTURING AND INSOLVENCY[10]

1. **In general, the participation of all creditors, including public creditors (such as tax and social security authorities) makes corporate debt restructuring more effective.** The treatment of public creditors' claims ranges from granting them super-priorities in some countries to detailed guidance on how these creditors may take part in out-of-court debt restructuring or outright prohibition of participation in debt restructurings in other countries.

2. **Despite the absence of clear guidance from international best practice in this area, there are several general principles that should be considered.** Recommendations 187 and 188 of the UNCITRAL *Legislative Guide on Insolvency Law* (UNCITRAL, 2005) recommends that priorities be "minimized", especially, "priorities over secured claims." The World Bank's *Principles for Effective Insolvency and Creditor Rights Systems* (2005) state that "public interests generally should not be given precedence over private rights (Principle 12A)." The IMF's *Orderly and Effective Insolvency Procedures* state that "the privilege [related to tax claims] has been justified on the grounds that giving the government priority with respect to tax claims can be beneficial to the rehabilitation process in that it gives the tax authorities an incentive to delay the collection of taxes from a troubled company (IMF, 1999, p. 49)."

- *Ranking*. Super-priorities (i.e., ranking ahead of secured creditors) may negatively affect secured credit and should be avoided. Specifically, (i) priorities (e.g., ahead of unsecured creditors) should be limited to the tax claims within a specified period of time (e.g., last 12 or 24 months), (ii) interest and penalties should be treated as unsecured (or be subordinated) claim, with only principal enjoying preferential treatment, or (iii) VAT and employee withholding taxes may be ranked preferentially (e.g., ahead of unsecured creditors).

- *Restructuring*. Subject to clear and predictable criteria, public claims (including principal) would ideally be restructured like any private claim. Consideration should be given as to whether and how this can be affected within the constitutional and legal framework in those countries which require an explicit legal basis for the tax administration to engage in debt restructuring. Information sharing between private and public creditors should be enhanced through, for instance, a credit register.

- *Guidance*. Clear and predictable guidance on how and under what conditions tax officials can participate in debt restructuring and insolvency would facilitate good faith application (which should shield tax officials from personal liability) subject to safeguards against fraud. Task forces of specialists (within the tax administration) could be established to deal with distressed businesses with tax liabilities. To the extent such guidelines are not advisable, due to the inexperience or lack of capacity of the tax administration, a certain degree of automaticity in debt restructuring could be envisaged.

[10] Prepared by Wolfgang Bergthaler and Jose M. Garrido (both LEG).

XIII. CORPORATE LAW OBSTACLES TO REORGANIZATION AND RESTRUCTURING OF FIRMS[1]

1. **The conflicts between insolvency law and company law extend to a wide range of issues.** National company laws in EU Member States reflect the principles of the EU Directives, and in particular, the Second Company Law Directive, which includes two fundamental principles (i) the competence of the shareholders' meeting to take decisions regarding any changes to the capital[2] and (ii) the right for shareholders to acquire new shares issued by the company (i.e., pre-emption rights). These principles, however, are not absolute, and there are exceptions to their application.

2. **Insolvency requires reconsidering the normal functioning of company law rules**. Company law is based on the assumption that the shareholders are the ultimate owners of the company, or, in economic terms, the residual claimants of the company. However, when the company is insolvent, their economic interests give way to claims that cannot be satisfied in full with the company's existing assets (such as secured or unsecured creditors).

3. **The complete preservation of shareholder rights may hinder the effective restructuring of insolvent firms.** If shareholders preserve their decision power over capital alterations, or if they retain their right to acquire shares in a capital increase, it may be impossible to implement a reorganization plan based on a debt/equity swap, or on a successive decrease and increase of capital. This, in turn, may lead to situations where creditors are forced to make concessions to shareholders, even when those concessions are not justified on economic grounds.

4. **There is room to address these challenges in national company laws consistent with EU Directives to support effective reorganization, as demonstrated by reforms implemented in several EU members.** For instance, Germany's 2012 reform of the insolvency law allows reorganization plans to include debt/equity swaps that wipe out existing shareholders, provided that (i) shareholders are not worse off under the reorganization plan than in liquidation of the company and (ii) the reorganization plan is approved with the majorities and complies with procedures required by the insolvency law. Equally, the 2013 Slovenian insolvency law amendment as well as the 2015 reforms to the Italian and French insolvency regimes permit debt/equity swaps without the consent of the existing shareholders.

[1] Prepared by Wolfgang Bergthaler and Jose M. Garrido (both LEG).

[2] Changes to the distressed company's capital structure represent a very effective technique to reorganize companies. Capital modifications such as debt/equity swaps allow companies to reduce their debt and afford creditors the opportunity to take an interest in the reorganized company, with the possibility of receiving future profits or of disposing of their shares in the market.

XIV. COMPARATIVE ANALYSIS OF SELECTED EUROPEAN AND INTERNATIONAL AMC INITIATIVES

AMC	Country	Type	Legal Setup, Ownership, Expected Life	Mandate & Management 1/	NPL Ratio, Govt. Debt/GDP,GDP Growth2/	Absolute and Relative Transaction Size 3/				Capital Structure & Main Funding Sources (bn)	Main Asset Types and Transfer Criteria	Transfer Oblig.	Transfer Price & Profit Sharing	Special Powers
						bn	% GDP	% Assets	% of NPL					
Europe														
Securum, Dec. 1992	Sweden	Centralized; Nordbanken, Gota	Public 100%; SEK24bn; 10-15 years	Narrow, independent	NPL ratio: n/a Debt/GDP:47% GDP(t): -1.2% GDP(t+1): -0.1%	SEK67 gross (at set-up)	4.5%	4.4%	n/a	33% equity and govt. funding	Complex corporate and Real estate loans	Yes	At net book value; No profit sharing	No
NAMA , Dec. 2009	Ireland	Centralized	Semi-private €100mn; 51% private, 49% public; 10 years	Broad, independent (but strong guidance)	NPL ratio: 9.8% Debt/GDP: 43% GDP(t):-6.4% GDP(t+1): -1.2%	€74 gross; €32 net	37.7%	5%	n/r	0.3% equity, 5% sub bond, 95% senior, govt guaranteed, bought by banks	Real estate loans, most developers, ABS	Yes	Avg. 57% discount to nominal value; valued at long term economic value	No
SAREB, Dec. 2012	Spain	Centralized	Semi-private; €1.2bn; 55% private, 45% public ; 15 years	Narrow, mixed management	NPL ratio: 6% Debt/GDP: 69% GDP(t): -2.1% GDP(t+1): -1.6%	€108 gross; €51 net	9.3%	3%	77%	2.2% equity, 6.5% (€3.6) sub, 91.4% (€50.8) senior, mainly govt guaranteed	Real Estate loans and assets; price based selection	No	Discount by asset category from 32.4% to 79.5%; Avg. 53%; no profit sharing	No
BAMC, Feb. 2013	Slovenia	Centralized	Public 100%;; €204mn; 10 years	Narrow, independent (own/third-party asset mgtm.)	NPL ratio: 13.3% Debt/GDP: 53% GDP(t):-1% GDP(t+1): 0.6%	€4.5 gross; €1.5 net	13%	8.9%	87%	17% equity, 83% (€1.0) senior govt. guaranteed	Complex Corporate and Real Estate assets	Yes	Avg. discount of 65%; valued at "Real long term value"; no profit sharing	No
SNB StabFund, Nov. 2008	Switzer-land	Decentralized; UBS	SPV, 100% SNB; $5.5bn repurchase option paid in as equity by UBS	Narrow, mixed mgtm.	NPL ratio: 0.9% Debt/GDP: 53 % GDP(t): 2.2% GDP(t+1): 0.3%	$39.4gross; $38.7 net	8.3%	1.1%	n/r	14% equity, plus Funding lines SNB 90%, UBS 10%	Illiquid ABS portfolio to stabilize UBS, depressed prices	No	2% below book value; First $1bn profit to SNB, 50%-50% split thereafter	No
EAA, Dec. 2009	Germany	Decentralized; West LB	Public, 100% Government & NRW state; €3.1bn; 18 years	Narrow, independent mgtm.	NPL ratio: 2.9% Debt/GDP: 65% GDP(t):-5.6% GDP(t+1): 1.7%	€178 net NPL and performing	7.5%	2.2%	n/r	2% equity, govt.-guaranteed bonds and notes	Illiquid Real Estate loans and ABS, depressed prices	Yes	Net book value; No profit sharing	No
KKR/AM HI, 2015	Italy	Decentralized; UCG/ISP	Private	Narrow	NPL ratio: 16.5% Debt/GDP:132% GDP: 0.5% GDP(t+1): 1.1%	$2 test phase	tbd								
International														
Danaharta, June 1998	Malaysia	Centralized	Public, 100% government, RM 3.0bn; 6.5 years	Narrow, independent management, (own/third-party asset mgtm.)	NPL ratio: 18.6% Debt/GDP: 32% GDP(t): -7.4% GDP(t+1): 0.5%	RM20 gross; RM 9 net	5.1%	4.2%	n/a	20% (RM3.0) equity, 80% (RM 11.1bn) Government guaranteed bonds	Selectively Corporate and Real estate loans	No, but regulatory "carrot and stick" incentives	Participating banks retained the right to get 80% of any recoveries in excess of acquisition costs	Yes, restruc-turing/ foreclo-sure powers
KAMCO, Sept. 1998	Korea	Centralized	Semi-private, 43% govt, 29% KDB and banks; SPV, 5 years	Narrow, independent mgtm. via JVs	NPL ratio: 7.4% Debt/GDP: 10% GDP(t):-5.5% GDP(t+1): 0.2%	KRW110 face value, KRW39.8 net	12%	13.8%	n/a	SPV funding: KRW 21.6tn bonds, of which 20.5 govt.-guaranteed	Selectively Corporate and Real estate loans	No, at bank request	45% of collateral value for secured loans and 3% on unsecured loans, avg. 35% of nominal	No
Maiden Lane LLC, II & III, 2008	USA	Decentralized, Bear Sterns; AIG	Semi-private; SPV (LLCs); 6-10 years	Narrow, independent mgtm.	NPL ratio: 1.3% Debt/GDP: 64% GDP(t):-0.3% GDP(t+1): 2.6%	$79.8 net (30.0/20.5/ 29.3)	0.6%	0.8%	n/r	Thin equity structures, mainly funded by NY Federal Reserve	Portfolios picked to stabilize institutions	No	Net book value, structuring of first loss pieces, profit sharing with originating entity	No

Sources: Bloomberg L.P., Consensus Economics, European Commission Annual Macro-Economic Database, U.S. Federal Reserve, Haver, IMF (FSI, GFSR, WEO), company information, and broker reports. Note: 1/ narrow=financial objective only, broad=additional elements, such as contribution to economic recovery or employment; 2/ NPL ratio and sovereign indebtedness at end of previous year (t-1), realized real GDP growth (t), one-year ahead real GDP growth expectation in the month after set-up of AMC (t+1), n/a = not available, n/r = not relevant or suitable for comparison; 3/ GDP, banking assets and NPL volumes as of transaction date (or end-2014).

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