European Commission

Directorate-General for Economic and Financial Affairs

Macroeconomic Relevance of Insolvency Frameworks in a High-debt Context:

An EU Perspective

Jean-Charles Bricongne, Maria Demertzis, Peter Pontuch and Alessandro Turrini

Abstract

The high level of private debt in many EU countries has put a spotlight on the role that insolvency frameworks can play in helping to address debt overhangs and clean bank balance sheets of non-performing loans. This paper reviews the macroeconomic relevance of insolvency frameworks from an EU perspective, discusses design issues of insolvency regimes and presents the main features of insolvency frameworks in selected EU Member States. It also reviews recently enacted reforms and examines remaining reform priorities from a macroeconomic perspective.

JEL Classification: D02, E44, F34, G33.

Keywords: bankruptcy, personal and corporate, economic efficiency, flanking policies.

Acknowledgements: We thank Anca Dragu, David Williams, Stefan Zeugner, and Nicolas Philiponnet for inputs to the production of the paper, and Anne Bucher, Brendan McNamara, Myriam Parmentier and Ondrej Vondracek, for helpful comments.

Contact: Alessandro Turrini, European Commission, Directorate General for Economic and Financial Affairs, Rue de la Loi 170, B-1049 Brussels, Belgium, alessandro.turrini@ec.europa.eu.
Jean-Charles Bricongne, European Commission, Directorate General for Economic and Financial Affairs and Banque de France. Maria Demertzis, European Commission, Directorate General for Economic and Financial Affairs and De Nederlandsche Bank. Peter Pontuch, European Commission, Directorate General for Economic and Financial Affairs.

CONTENTS

1. Introduction 3

2. Macroeconomic relevance of private debt and the role of insolvency 5

2.1. Macroeconomic effects of high private debt 5

2.2 High debt and deleveraging needs in the euro area in the current context 6

2.3 The economic relevance of insolvency frameworks 8

3. Basic aspects of insolvency frameworks 13

3.1 Economic issues linked to insolvency 13

3.2 Main features and elements of insolvency frameworks 14

4. Economic principles for efficient insolvency frameworks 17

4.1 Main economic trade-offs 17

4.2 Efficiency principles for corporate insolvency 19

4.3 Efficiency principles for personal insolvency 20

4.4 Government intervention and flanking policies 22

5. Overview of insolvency frameworks in the EU 23

5.1 Efficiency of insolvency frameworks: a look at synthetic indicators 23

5.2 Selected characteristics of insolvency frameworks in a set of EU countries 25

5.3 Conclusions: reform priorities from an economic perspective 28

References 31

Appendix 1: Existing EU-level regulations and recommendation on insolvency 33

Appendix 2: Resolving insolvency: the synthetic World Bank Doing Business insolvency indicators 34

Annex 35

1. INTRODUCTION

This paper discusses the economic relevance of insolvency frameworks in the current EU context. In particular, it discusses the macroeconomic effects of excessive debt and how insolvency frameworks can help address it. It then illustrates the main elements and features of insolvency frameworks and discusses the main trade-offs relevant in designing effective systems. Last, it presents the main characteristics of insolvency frameworks in selected EU countries, recent reforms undertaken in a context of high and widespread indebtedness, and discusses reform priorities looking forward from a macroeconomic perspective.

The main motivation for addressing insolvency frameworks at the current juncture is the high level of private sector debt in a number of EU countries. The weight of existing debt held by corporations and households prevents them from undertaking new investments and holds back their consumption, creating a situation of *debt overhang* (see e.g., Dynan et al., 2012). By implication, as long as private debts remain at high levels, economic activity may struggle to pick up. The persistence of high debt can be explained first by the low inflation-low growth environment in most of the EU, which has made the servicing of existing loan obligations more challenging. Beyond that, progress has been slow in resolving impaired loans, as manifested in high non-performing loan (NPL) ratios in banks' balance sheets, which could act as a constraint on the supply of credit and has implications for the allocation of financial resources.

Insolvency frameworks could help to address issues linked to high debt in a number of ways. Effective insolvency frameworks contribute to reducing the adverse effects of high private debt on economic activity by freeing up resources caught in unproductive activities. Moreover, they can mitigate deadweight costs linked to bankruptcies by providing a transparent and speedy process to resolving non-viable debt. Ex ante, insolvency frameworks shape the incentives that govern decisions to both provide credit as well as borrow to invest. Ex post, after a debtor has become insolvent, the framework determines how much value is rescued for the creditor and how quickly debtors are released from their obligations. Research has also shown that bankruptcy reform can aid in the quick recovery of an economy during a recession.[1]

Insolvency frameworks by themselves are no panacea and their effectiveness depends on a number of additional supporting policies and the overall framework. Modernising insolvency law may in some cases be a necessary condition to address problems linked to high debt, but it may not be sufficient. Other factors play a key role, including those linked to the availability of an adequate judicial infrastructure, and those related to regulatory and tax policies aimed at ensuring financial stability while supporting incentives to resolve debt.

Insolvency frameworks matter also from the viewpoint of financial and economic integration. Large asymmetries in the way insolvency is regulated could interfere with decisions regarding cross border investment. The European Commission has recently launched the Capital Market Union[2] and Single

[1] Claessens, and Klapper (2003).

[2] European Commission, Green Paper, building a Capital Markets Union, COM/2015/063 final, February 2015.

European Commission, Action Plan on Building a Capital Markets Union, Communication from the Commission to the European Parliament, the Council; the European Economic and Social Committee, and the Committee of the Regions COM(2015) 468 final, September 2015

Market Strategy[3] initiatives. The ambition of the first is to increase access to alternative means of financing (away from bank dependence), hence broaden, as well as deepen financial integration in Europe and avoid that large differences in insolvency frameworks present an obstacle to the achievement of such objectives. The aim of the latter with respect to insolvency is to support *bona fide* entrepreneurs by providing a regulatory environment that is able to accommodate failure without discouraging entrepreneurs from trying new ideas.

There is no single optimal model for insolvency frameworks, although consensus has converged on some broad principles. Societal attitudes and legal frameworks provide a context for these frameworks to develop and can therefore induce sizeable differences between countries. Nevertheless, general principles have been developed especially for corporate insolvency in the context of international institutions (e.g., UNCITRAL, the World Bank) in the direction of favouring a careful balance between informal and formal procedures, resolving distressed debts as early as possible, and aiming for quick resolution.

Insolvency frameworks may need to be adapted especially when high outstanding debt needs to be addressed swiftly, in combination with appropriate flanking policies. The need for identifying effective debt resolution mechanisms is of the outmost urgency when the problem of debt itself is deemed systemic. Solutions applied may require active policy intervention in ways that go beyond what is required in normal circumstances. Such solutions would aim to mitigate externalities and coordination problems, as well as provide a fiscal backstop and social safety nets. At the same time, resolving systemic debt may have important financial stability implications that require the active involvement of the regulator. Reforms adopted in Ireland, Spain and more recently Italy, aim to resolve the sizable stock of non-performing loans while preserving the health of bank balance sheets.

A number of euro area countries carried out insolvency framework reforms in the context of high accumulated debt after the crisis. Available quantitative indicators suggest that, as a result of reforms, there was increased effectiveness of insolvency frameworks. Reform needs are however still relevant across the euro area. In a few countries needed reforms have not yet materialised; in other countries effective application of recent reforms is to be ensured; in some countries recent reforms need to be accompanied by flanking policies that are required to ensure the effective resolution of bad debt. More generally, room exists to make progress towards best practices and reduce asymmetries in existing frameworks with a view to an effective single market and capital markets union.

The remainder of the paper is organised as follows. Section 2 motivates the subsequent analysis by looking at the relevance of high private debt for economic prospects and how insolvency can contribute to a proper functioning of the financial system. Section 3 illustrates the main elements of insolvency frameworks. Section 4 discusses economic principles for effective insolvency frameworks. Section 5 reviews the reform priorities for insolvency frameworks in the euro area.

---

[3] European Commission Communication to the European Parliament, The Council, The European Economic and Social Committee and the Committee of the Regions, Upgrading the Single Market: more opportunities for people and business, 550 final, 28.10.2015. See also Appendix 1 for an overview of regulations and recommendations issued.

2. MACROECONOMIC RELEVANCE OF PRIVATE DEBT AND THE ROLE OF INSOLVENCY

2.1 MACROECONOMIC EFFECTS OF HIGH PRIVATE DEBT

While debt is a necessary tool to promote growth, excessive debt weighs on economic prospects. At moderate levels, debt helps channel savings to profitable investment opportunities and helps smoothing consumption over time. However, once debt rises beyond prudent levels, it may increase vulnerability to shocks (e.g. fall in income, interest rate shocks) and lead to protracted periods of deleveraging (Cecchetti et al, 2011). Although there is no clear consensus about where the tipping point lies, there is widespread recognition that high debt sows the seeds of reduced investment rates afterwards. Moreover, high credit growth tends to precede the occurrence of financial crises, thereby amplifying subsequent recessions (e.g., Jordà, Schularick, and Taylor (2013)).

From the debtors' perspective, unsustainably high indebtedness creates a debt overhang problem, which weighs on investment and consumption decisions. Broadly speaking, debt overhang is defined as a situation where a firm's high levels of debt act as a disincentive to new investment (Myers, 1977). Large outstanding debt implies high repayment costs and high perceived default risk, which discourage engaging in new investments. Moreover, incentives not only to invest but also to supply labour are reduced if a large part of income is used to repay debt. When the overhang problem affects many economic actors at the same time, the whole economy may have little incentives to repay external debt (e.g., Krugman, 1988). Empirical evidence shows that the impact of the debt overhang on aggregate investment can be quite sizeable. Ozcan et al (2015) argue that the debt overhang explains about a third of the decline in investment observed during the crisis in the euro area. [4]

From the creditors' perspective, the presence of non-performing debt in their balance sheets weighs on their ability to provide funding to the economy. There are several channels through which non-performing loans can affect creditors (Aiyar et al, 2015). First, the occurrence of non-performing loans (NPLs) creates higher provisioning needs. This weighs on banks' profits (with the impact depending also on the particular tax treatment of provisions), thereby reducing banks' ability to generate equity. Second, the willingness of banks to finance risky projects could be reduced by the perception of increased asset riskiness linked to NPLs (e.g., Diwan and Rodrik, 1992). Third, higher capital requirements linked to increased riskiness of assets tie up banks' resources and crowd out new credit. Fourth, profits are further reduced by the increased amount of human resources needed to monitor and manage a high NPLs stock.

A high NPLs stock has implications on growth prospects also via the allocation of capital between viable and non-viable firms. High stocks of NPLs are often associated with a relatively large fraction of credit being locked up with non-viable firms. Banks may have an incentive to refinance non-viable "zombie" firms in order to delay having to incur losses on these loans. As this happens, at the expense of the supply of credit to new, viable projects, the protracted refinancing of unviable debt implies that capital becomes increasingly misallocated, with relevant implications in terms of overall investment and growth prospects.[5]

---

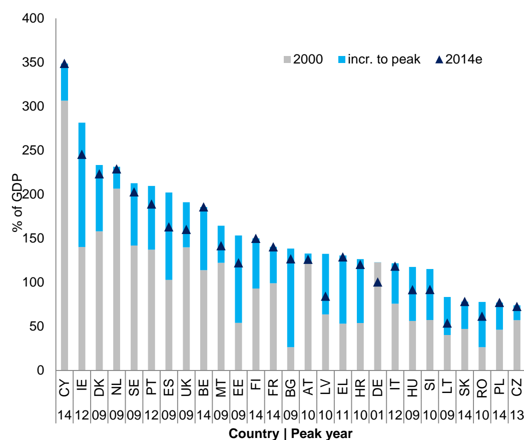
[4] Likewise, Barkbu et al. (2015) suggest that high leverage is one of the major factors behind weak investment in the euro area.

[5] Disney, et al (2003) show that exit, entry, and market share change account for 50% of the productivity growth at companies' level, and 80-90% of total factor productivity growth. They argue that much of the benefit arises from being able to cease and replace unproductive activities with those that are more productive.

2.2 HIGH DEBT AND DELEVERAGING NEEDS IN THE EURO AREA IN THE CURRENT CONTEXT

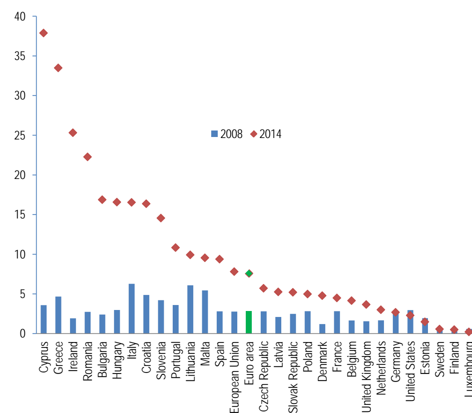
High levels of debt accumulated prior to the financial crisis weigh on economic activity and on banks' balance sheets. Both households and firms had witnessed big increases in their debt-to-GDP ratios in the 2000s. This has led to considerable increases in total private sector indebtedness. Downward adjustment of indebtedness from peak has been mixed so far, with only a handful of countries having managed to significantly revert to lower levels (graph 1). In parallel, high indebtedness has led to a considerable deterioration of banks' balance sheets, as reflected in very high NPLs levels (graph 2). Debt deleveraging currently weighs on economic activity. While booming indebtedness was associated with high investment prior to the crisis, it was followed by an even stronger contraction in investment thereafter (graph 3).

Graph 1: **Private sector debt adjustment**



Source: Eurostat

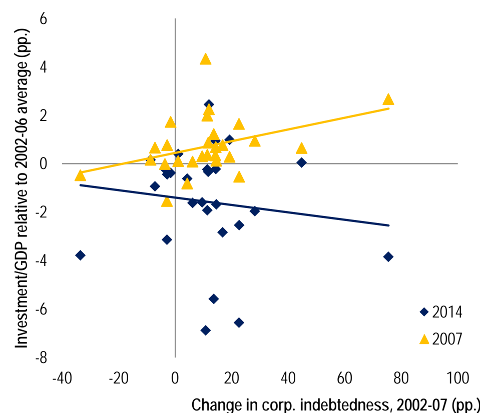
Graph 2: **Non-performing loans problem**



Source: IMF

The legacy of high indebtedness is proving difficult to reverse in a low-growth, low-inflation environment. Deleveraging is currently occurring in two different modes: actively through negative credit flows, adversely affecting economic activity, or passively through nominal GDP growth and moderate positive credit flows (see graph 4). Active deleveraging is at present more common (notably in Portugal, Spain, Slovenia, Denmark and Ireland). Despite negative credit flows to the private sector, Cyprus, Greece and, to a limited extent, Croatia saw indebtedness rise due to the poor nominal GDP growth or exchange rate movements. In a second group of Member States, lower deleveraging pressure meant that the flow of credit to the private sector remained positive. Some of these countries have seen their leverage ratio go down as a result of growth in nominal GDP.

Graph 3: **Corporate non-residential investment and debt overhang in the EU**

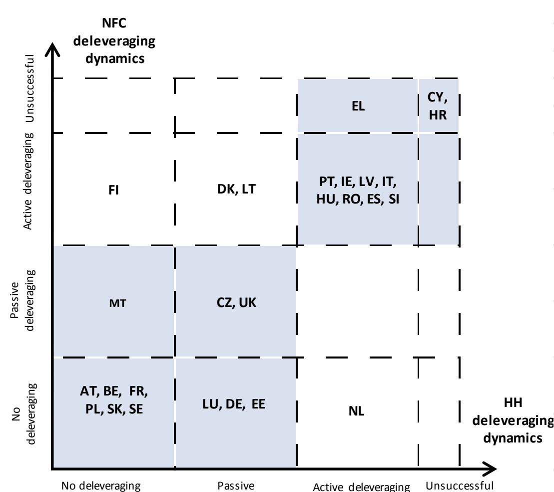


Source: Eurostat

Deleveraging is ongoing but deleveraging needs remain sizeable in a number of euro area countries. Since the onset of the crisis, both the corporate sector as well as households have engaged in reducing debts in most countries, with various degrees of success. This is benchmarked against past deleveraging episodes and a level of indebtedness assessed to be 'sustainable'.[6] It shows that the potential for additional correction remains significant (Graph 5). Eleven EU Member States show either no strong deleveraging needs or only modest needs in a specific sector (households). However, the estimates suggest that a significant adjustment might still be needed in many euro area countries, in particular those that had witnessed a housing boom.

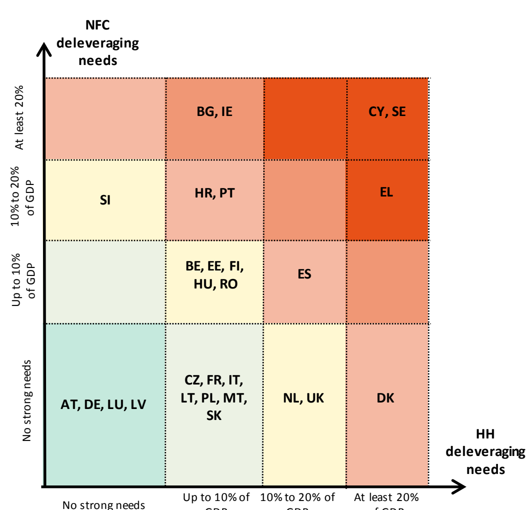
Stronger reliance on resolution of non-viable debt through insolvency would help address the high debt burden, while limiting the negative impact on growth of protracted deleveraging. Active deleveraging can have substantial implications in terms of reduced investment prospects. Moreover, high household indebtedness weighs also on prospects for durable purchases and consumption dynamics. Overall, reducing private debt to prudent levels via compressed investment and consumption in a number of euro area countries would have considerable and long-lasting implications on growth.[7] Against this background, effective insolvency frameworks that write down unproductive debt constitute an important additional policy lever to ease the debt burden.

Graph 4: **Deleveraging dynamics**



Source: Authors' calculations on Eurostat data

Graph 5: **Estimated deleveraging needs**



Source: Authors' calculations on Eurostat data

[6] Deleveraging needs are identified by comparing current debt to a level that is deemed sustainable. This benchmark of sustainable debt is estimated in two alternative ways. The first estimates debt that is consistent with the evolution of households' and firms' assets corrected for valuation effects (Cuerpo et al., 2015). The second estimation method develops a historical norm based on past deleveraging episodes (Bornhorst and Ruiz-Arranz, 2013). For details on the methodology see Pontuch (2014).

[7] Simulations with the European Commission macroeconomic QUEST model indicate that a 10 pp reduction of private debt-to-GDP by means of corporate and household deleveraging over a ten-year horizon causes a persistent reduction in GDP of about 1pp (European Commission, 2014).

2.3 THE ECONOMIC RELEVANCE OF INSOLVENCY FRAMEWORKS

Insolvency frameworks define procedures for dealing with insolvent debtors. Legislation generally sets out the conditions for initiating insolvency procedures, outlines creditors' and debtors' rights and obligations, describes the role of courts, the steps to be followed once the procedure starts and the timeframe. Insolvency frameworks may also define conditions for the early restructuring of debt before actual insolvency occurs. Frameworks may concern both corporate and households or may be targeted to a specific typology of debt or to specific cases or situations.

Insolvency frameworks have significant economic effects through private agents' incentives. Insolvency frameworks shape debtor and creditor incentives as they define rights and obligations of both parties entering a debt relation. Such incentives have in turn economic effects.

- *Ex-ante*, i.e., when debt is created:
    - Insolvency frameworks affect *borrowers' incentives to take on debt and lenders' incentives to provide credit*. By providing adequate protection of lenders in case of default, a good framework helps maintain incentives to supply credit. In parallel it mitigates opportunistic behaviour on the part of borrowers (moral hazard), without discouraging responsible borrowing.
    - Insolvency legislation also affects *creditor incentives to screen borrowers and monitor their capacity to repay*. In this respect, a legislative framework that provides excessive protection to creditors may lead to irresponsible lending, by reducing the incentives to carry out early screening, and thus to distinguish between viable and non-viable projects and to monitor closely their compliance with the contract.

- *Ex-post*, after debt becomes distressed:
    - Insolvency frameworks can *affect borrowers' incentives to create value to repay outstanding debts*. Frameworks that are excessively punitive may discourage debtors from creating value. This leads to lower value for creditors and can therefore be detrimental to overall society welfare. The different incentives that creditors are facing ex-ante and ex-post rationalise the possible renegotiation of conditions once debtors become distressed;
    - Insolvency frameworks also matter for insolvent debtors to have a *fresh start* and engage in new projects and activities after having become bankrupt.

- By *reducing legal and procedural uncertainty and delays*, transparent and speedy insolvency frameworks strengthen the incentives to engage in financial relations ex-ante and reduce deadweight costs linked to dealing with insolvency ex-post.

The economic role of insolvency frameworks is particularly relevant in situations of high outstanding debt. In such conditions, debt overhang reduces the incentives to invest, while high NPL stocks impair the supply and allocation of credit. As discussed above**,** insolvency frameworks play an important role in ensuring that opportunistic behaviour is tackled effectively, viable debt remains serviced, while production factors tied up by non-viable loans are released and can be put to productive uses. Efficient insolvency frameworks enable a predictable, faster, and less costly resolution of debt distress. This has a positive effect on bank balance sheets, because it increases the residual value and lowers the underlying risk of NPLs held by banks. By narrowing the gap between the value of NPLs in banks' books and in the secondary market, insolvency may foster a swifter bank balance sheet clean-up.

A well-functioning insolvency framework should ensure that viable debt remains serviced while non-viable debt gets resolved. In terms of the scheme provided in Table 1 below, the bulk of outstanding debt should remain in one of the two main diagonal categories. Performing loans are those that are effectively paid back. Viable loans are those for which the underlying assets generate sufficient value to cover funding costs. On the one hand, the existence of moral hazard implies that debtors may choose not to pay back debt

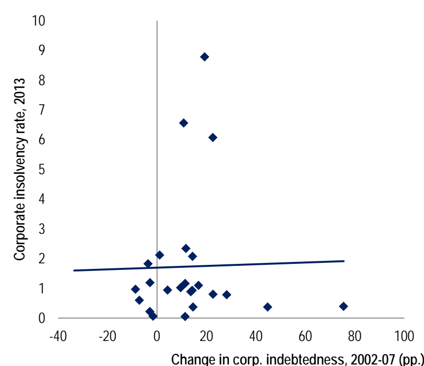
even when economically feasible ("strategic defaults").[8] On the other hand, excessively restrictive conditions on borrowers may imply that resources are used in unproductive activities for the mere sake of debt repayment. Well-functioning insolvency frameworks align incentives in ways which ensure that viable loans are effectively repaid, while unviable ones are resolved. This would help in turn address the consequences of the debt overhang and high NPL stocks on the supply and allocation of factors of production.

Table 1: **Characterising loans based on viability and servicing**

	Viable	Non-Viable
Performing	Good loans	Unproductive loans
Non-performing	"Strategic" defaults	Bad loans

The cross-country relation between debt overhang and insolvency rates is not clear-cut. As shown in Graph 6, the countries where the corporate sector has accumulated more debt over the debt boom period are not necessarily the same exhibiting higher insolvency rates in 2013. The occurrence of insolvency is indeed highly country-specific, and differences may be linked to other factors than just the magnitude of deleveraging needs (see estimates in Graph 5).

Graph 6: **Corporate insolvency rate (%) and excess corporate indebtedness in EU Member States**



Source: Eurostat, Credit reform.

The data however indicate that the evolution of bad debt is linked to that of insolvencies. Such link is highly country-specific. Graph 7 below groups countries according to their levels of NPLs (LHS) and the evolution of NPLs in relation to the number of insolvencies that occurred in the period from 2006-2013 (RHS). The graph shows a number of interesting developments:

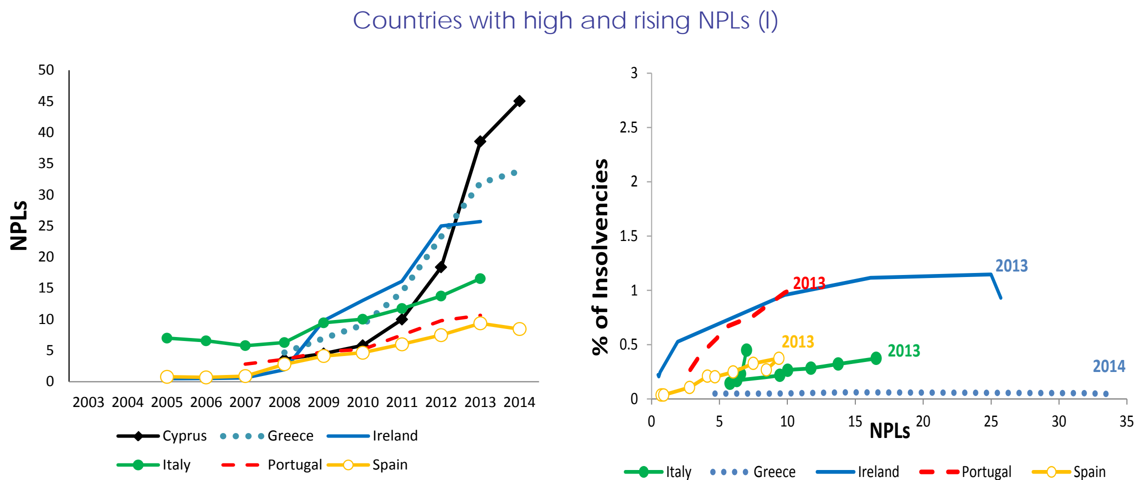
---

[8] The incidence of strategic defaults is both an important consequence of high indebtedness and one that happens for reasons that are not necessarily pecuniary. Guiso et al (2013) find that strategic defaults increase as negative equity on mortgages increases. However, households' likelihood to default strategically is shown to be also associated with perceptions of fairness, as well as the perceived risk of negative consequences of defaulting. In this respect, indiscriminate protection of debtors or the malfunctioning of the collateral collection system may lead to a higher prevalence of strategic default.

- Generally, during the build-up of NPLs, there is a positive relation between NPLs and insolvencies. The steeper this relation, the more bankruptcies contribute to slowing down the increase in NPLs.
- An effective correction of NPLs through insolvencies requires this relationship to form a loop at some stage. This is visible in the three Baltic countries and, to some extent, Slovenia. Latvia has experienced a clock-wise loop, whereas Slovenia and Lithuania have experienced a counter-clock-wise loop. The latter pattern tends to be associated with processes where insolvencies growth is followed by NPLs, i.e., where insolvencies appear as contributing to the reduction of bad debt. [9]
- Other countries having witnessed a rapid increase in NPLs do not exhibit yet a visible loop in the NPLs-insolvency relation. Countries that were concerned by current account reversals or debt crises such as Cyprus, Greece, Ireland, Italy, Spain, have seen a rapid increase in NPLs since 2010. Ireland and Spain have been recently characterised by a deceleration in NPLs.
- A number of countries have experienced very mild increases in NPLs and have generally exhibited a relatively strong insolvency response. Germany and the Netherlands fall in this category. Moreover, this group of countries, despite low NPLs, exhibit insolvency rates comparable with that of other EA countries with much higher NPLs.

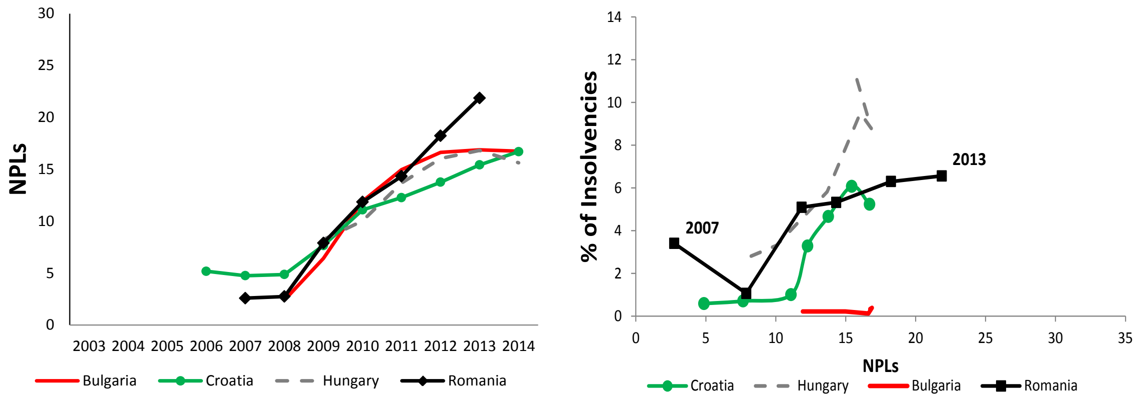
All in all, while the dynamics of insolvencies appears linked to that of NPLs, the level of insolvency rates is only mildly related to measures of bad debt, and other factors are needed to explain the variation of insolvency rates across countries.

Graph 7: **NPLs and insolvency**

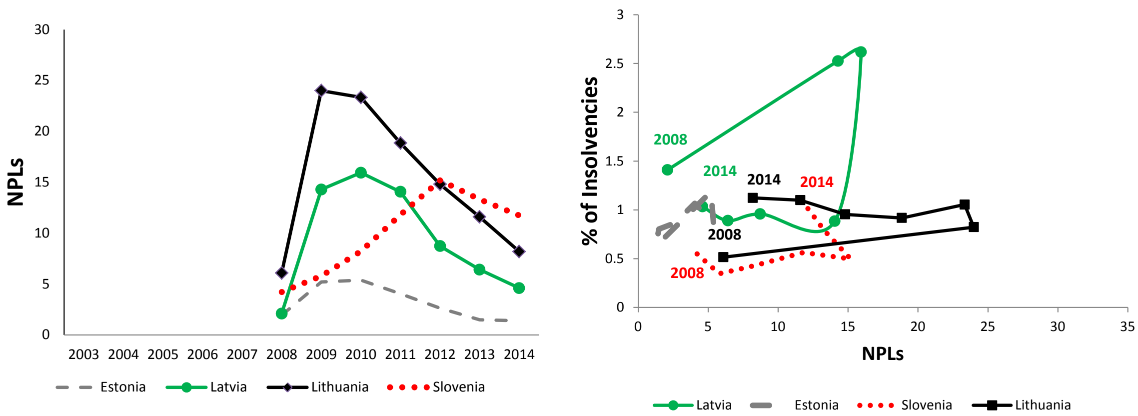


[9] Caution should be given to the relation portrayed as data on insolvencies reflect only those on the corporate whereas NPLs are both for corporate and households.

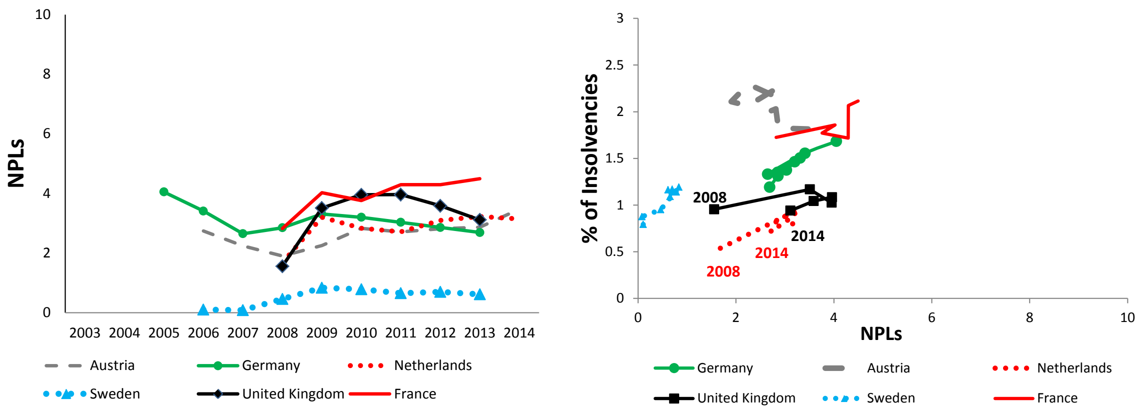
Countries with high and rising NPLs (II)



Countries with high but correcting NPLs



Countries with low and stable NPLs



Notes: Non-performing loans: IMF 2005/06- 2013/2014. Number of insolvencies (CreditReform 2003-2014)). The number of years shown in the RHS, matches the number of years of available data for NPLs. The number of insolvencies is standardised by the 2012 number of firms as quoted by EUROSTAT.

Cross-country correlations suggest that countries with more effective insolvency frameworks are characterised by a lower stock of NPLs and have implications for business dynamics. Table 2 below shows country correlations between indicators of the quality of insolvency frameworks (see Appendix 2) and a number of performance variables. Results show that good insolvency regimes are weakly associated with lower stock of NPLs (as % of total loans), but have a stronger negative correlation with the rate of increase in NPLs. Effective frameworks are more frequently found in countries where the subsequent build-up of NPLs is slower. The relation suggests that effective insolvency frameworks may contribute to keep NPLs low, although one should be prudent in interpreting such relation as a manifestation of causality: such regularity may be driven by other factors affecting insolvency and NPLs at the same time. The analysis also shows that good insolvency regimes are also associated with a lower frequency of insolvencies. A possible interpretation is that in countries with effective insolvency frameworks, despite their lower cost, insolvencies are less frequent because those countries are also the same exhibiting a lower stock of NPLs. As shown in Table 2, high-quality insolvency regimes also tend to go together with higher entry rate of firms. This evidence confirms existing findings that better insolvency regimes have an impact also on the degree of business dynamism, (see, e.g., Lee et al, 2007, Landier, 2004).

Table 2: **Quality indicators of insolvency frameworks and economic outcomes: evidence from cross-country correlations**

Variables	Correlation coefficient	Sample
	Insolvency score and NPLs	
Doing Business insolvency score index and NPLs (% total loans)	-0.08	Countries covered by the World Bank, 121 observations in the cross-section in 2013.
Doing Business insolvency score index in 2012 and NPLs' ratio change between 2012 and 2014 (growth rate, %)	-0.19	Countries covered by the World Bank with available data over the 2012-2014 period, 109 data points in the cross section
	Insolvency score and insolvency outcomes	
Doing Business insolvency score index in 2012 and growth rate of bankruptcies between 2012 and 2014	-0.30	OECD countries with available data over the 2012-2014 period, 13 data points in the cross-section
Doing Business insolvency score index and number of corporate insolvencies (scaled by the GDP)	-0.33	OECD countries (+Latvia & Lithuania), 25 data points in the cross-section in 2012.
	Insolvency score and firms' demography	
Insolvency score in 2011 and growth rate of firm entries between 2011 and 2013	0.18	OECD countries with available data, 14 data points in the cross section

Sources: Doing Business, World Bank, Ecorys Report, using data from Credit reform Economic Research Unit, OECD.

3. BASIC ASPECTS OF INSOLVENCY FRAMEWORKS

3.1 ECONOMIC ISSUES LINKED TO INSOLVENCY

Creditors' and debtors' incentives are shaped by the interaction of insolvency frameworks with other institutional settings. On the creditors' side the incentives to resolve debt depend not only on the framework for insolvency but also on a series of policy and regulatory conditions including taxation (the impact of different outcomes of insolvency on their tax obligations), prudential rules (how write-downs affect provision and capital requirements), accounting rules (the impact of different resolution options on earnings). Regarding debtors, requirements for information disclosure coupled with appropriate monitoring and enforcement are crucial to identifying debtor's true repaying capacity and discouraging moral hazard. The incentives for debtors to initiate and engage in a resolution dialogue when debts are not serviceable are shaped not only by bankruptcy law but also by framework conditions including social safety nets, the efficiency of markets (e.g., the housing market in the case of mortgage collateral) and all factors that relate to the ease of doing business and starting a new activity for entrepreneurs.

Insolvency frameworks deal with coordination issues that may arise at the micro-level, when a debtor has several creditors.

- *Run on debtor assets*. A first coordination issue arises because once a debtor becomes distressed, creditors have individually an incentive to call back their credit before others do, to maximise the chances of repayment. Similarly to bank runs, the run on debtors' assets by creditors could itself provoke insolvency even in cases of viable activities.

- *Heterogeneous preferences on debt resolution modalities*. Coordination issues may also arise because creditors have different priority status (secured, senior, junior), but also because the economic origin of their claims differs (financial, trade credit, labour liabilities, public authorities) and may therefore affect their preferences for a certain type of debt resolution. In particular, it may happen that purely out-of-court preventive restructuring deals that require unanimity are blocked by a dissenting minority (*hold out* problem). This issue is typical for corporate insolvencies but it is also increasing in relevance for households through their exposure to banks, consumer lenders, utilities and public administration.

In a high-debt environment, coordination problems may also arise at the macro-level.

- *Strategic delay*. Coordination problems may arise because the macroeconomic environment affects the capacity to pay back distressed debts. Creditors have individually an incentive to refrain from writing-off bad debts and disclosing losses. Instead, they have an incentive to wait for the macroeconomic environment to improve, which may help previously distressed loans starting to perform again. This type of coordination problem tends to delay the moment in which bad debt is resolved, keeping resources employed in non-viable uses.

- *Collateral meltdown*. The simultaneous liquidation of collateral by creditors could have an impact on the market value of collateral (including that of performing debt), thereby reducing the extent to which bad debts are recovered. This is a coordination issue that is of particular relevance for mortgage debt. Financial institutions may not internalise sufficiently this phenomenon and thus reduce the capacity to recover distressed debt on aggregate.

- *Congestion*. The simultaneous resort to insolvency procedures could lead to court congestion, thereby lengthening the time necessary to complete bankruptcy cases.

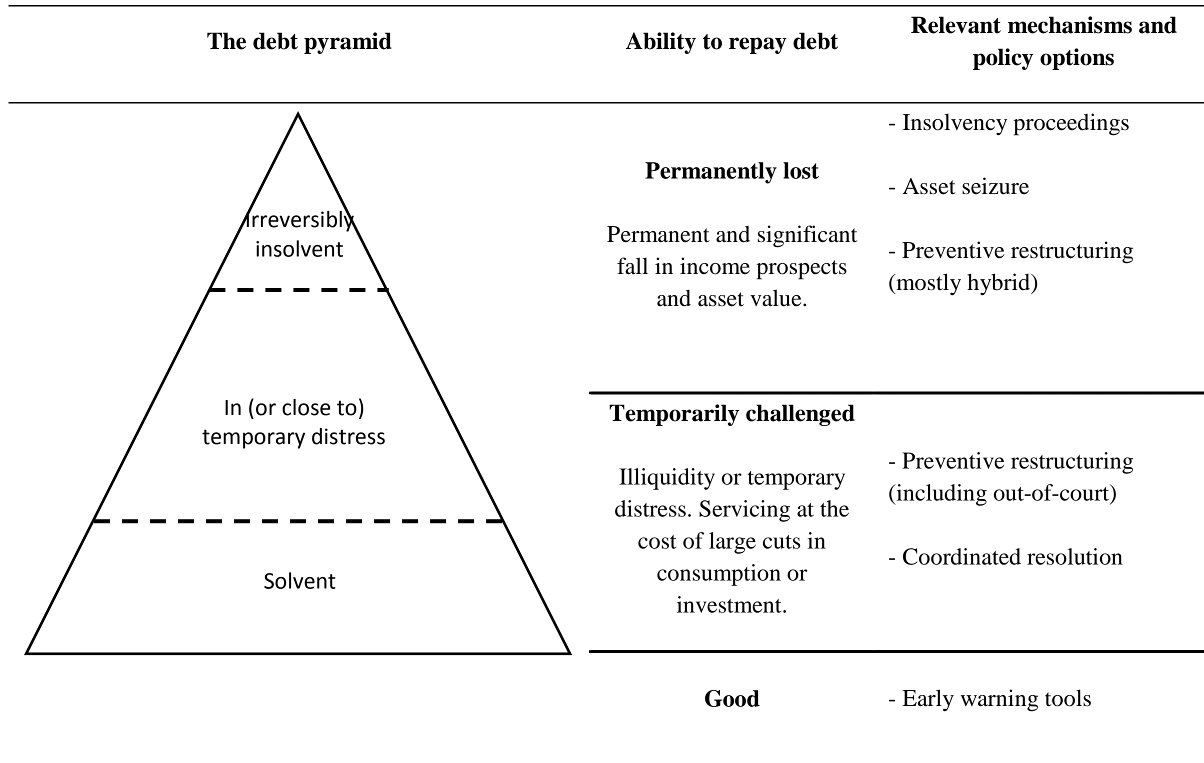
In a high-debt environment, the simultaneous resolution of debt may have repercussions on the capital position of banks. The occurrence of losses in some banks may come with increased needs to provision also for other financial institutions and possibly lead to higher capital needs on aggregate. In the presence of high stocks of NPLs and pervasive multi-creditor relations, externalities would become prevalent as the resolution of bad debt by one creditor implies the disclosure of losses by other creditors.

Pervasive coordination failures arising in a high-debt environment may require government intervention. In light of the multi-faceted policy issues linked with debt resolution and pervasive coordination problems in a high-debt environment, government intervention may be needed to adapt insolvency frameworks and put in place adequate flanking policies. The aim of government intervention would in most cases be that of accelerating the process of debt resolution, to overcome delays linked to coordination failures and congestion while at the same time preventing self-defeating massive bankruptcies and ensuring sound capital adequacy for banks. The policy arsenal would not be confined to insolvency framework reforms but would include financial sector policies, taxation and social backstops. The size and scope of the intervention would in general depend on the available fiscal space, as costly measures on the budget may be needed to incentivise special insolvency frameworks, recapitalise banks and provide income support to distressed households following foreclosures. Government intervention aimed at accelerating debt resolution could interfere with standard insolvency practices and imply wealth redistribution. Its justification would be stronger the higher the stock of distressed debt and the extent of coordination failures.

3.2 MAIN FEATURES AND ELEMENTS OF INSOLVENCY FRAMEWORKS

Insolvency proceedings may foresee different types of actions. In the case of corporate insolvency, generally legislation and practice aim at maximising the value that debtors can generate, with liquidation seen as a last resort alternative. In the case of personal insolvency, liquidation of collateral is common (notably, in the case of mortgage debt), and schemes for restructuring debt and enhancing repayment capacity could also be a complement or an alternative.

Graph 8: **Debt distress and insolvency**



Insolvency is only a late step in the time-line of distressed debt. The time-line of distressed debt starts when a debtor first sees signs of difficulty in servicing. This time-line goes all the way through actual default and insolvency, and ends at the point when debtors are released of all obligations. Different tools are relevant to ensure that debt continues to be serviced or is quickly resolved, at each stage of the timeline. As a result, the outstanding stock of debt in an economy is a mix of solvent debt, as well as debt at different stages of distress (see Graph 8).

The articulation of insolvency frameworks differs across countries, depending inter-alia on the characteristics of the legal system, the main features of the financial market and economic conditions. The meaning of the word "insolvency" itself may differ across jurisdictions. The design of insolvency frameworks depends on the presence and characteristics of a series of steps, rules, and processes.

Given their relevance over the life-time of debt, the main insolvency frameworks elements are reviewed below.

- **Early warning tools.** In the early stages of a debtor's lifecycle, these tools can improve the swiftness and timely use of appropriate insolvency mechanisms, assisting the debtor in the assessment of the extent of risks involved.

- **Preventive restructuring frameworks** Preventive restructuring frameworks, often referred to as pre-insolvency frameworks, allow debtors and creditors to negotiate informally before insolvency starts. Depending on the extent of involvement of courts one could distinguish:
  - *Pure out-of-court agreements:* private contractual changes that require all creditors' consensus.
  - *Hybrid informal agreements:* these mechanisms can rely on decisions by a majority of creditors according to modalities that are generally set in law (see Garrido, 2012). The definition of the majority can be based on the share of affected liabilities, and creditors can be separated into classes reflecting their different interests. Majority decision-making mitigates the creditor hold-out problem when a dissenting minority can threaten to stall an agreement. These agreements are feasible only if they are granted protection from clawback actions, requiring some involvement of courts.

- **Seizure mechanisms** Individual creditor remedies on debt collection play an important role in shaping the outcomes of an insolvency framework. Asset seizure is a crucial incentive mechanism for debtors to adhere to their contractual obligation throughout a loan's lifecycle. Asset seizure and liquidation mechanisms are typical of secured debt, but may be part of the treatment of unsecured debt as well. One can distinguish different types of asset seizure or liquidation mechanisms:
  - *Collection of collateral*. In the case of a default on secured debt (e.g., a mortgage), the collateral is seized through a legal operation (generally requiring a court order) and used to cover the debtor's residual liability.
  - *Voluntary surrendering of the collateral asset*. The debtor transfers to the creditor the collateral on a voluntary basis. Although the effect is the same as in the case of a foreclosure, the procedure is quicker and less costly as it avoids judicial proceedings. This procedure is for example used in the US ("deed in lieu").
  - *Seizure or liquidation of other assets*. In the case of unsecured debt, assets can also be seized by individual creditor actions subject to judicial order, unless the debtor is protected from individual enforcement in an insolvency proceeding. In this case a broader seizure and liquidation may be one of the proceeding outcomes.

- **Formal insolvency proceedings.** Depending on the specific legal context and the chances that the debtor assets can be used efficiently to generate income to repay debt, a broad range of resolution options could be used in formal proceedings.
  - In the case of personal insolvency, if collateral liquidation is not sufficient to satisfy creditors, formal insolvency proceedings' options for households and consumers usually lead to repayment plans over a given period, typically followed by a discharge from obligations.
  - In the case of corporate debt, insolvency proceedings may involve:

- *Formal reorganisation or restructuring proceedings.* These are intended for companies which can be made viable if assets and liabilities are significantly restructured. Companies may be controlled by administrators appointed by the court, or remain in control of the debtor. Companies under restructuring are in general protected from creditor claims for a limited period (i.e., creditors are subject to a temporary stay), to prevent runs on the debtor assets that could jeopardise its effective restructuring.
- *Pre-packaged insolvency proceedings.* Insolvency proceedings could in some circumstances simply consist of a pre-defined restructuring programme. The advantage of such pre-existing options is timeliness and ex-ante certainty of outcome and is sometimes used to improve revenues in case of liquidation.
- *Formal liquidation*. Disposal procedures may be the only suitable alternative for non-viable businesses. It may come after unsuccessful attempts to restructure the underlying business and debt conditions.

- **Post-insolvency measures.** Several issues have to be addressed to ensure a genuine fresh start for households and entrepreneurs, in the post-insolvency stages.
  - *Monitoring of conduct*. A debtor having acted in good faith should receive a fresh start in order to restore normal consumption, investment and be induced to generate income.
  - *Debtor information.* The treatment of insolvency in credit registers is important in order to allow re-access to finance following insolvency.
  - *Prevention tools.* The use of prevention tools discussed above should also be more assertive in the post-insolvency phase of a debtor.

4. ECONOMIC PRINCIPLES FOR EFFICIENT INSOLVENCY FRAMEWORKS

The economic literature has long studied the properties of insolvency frameworks and attempted to identify the key efficiency factors. Insolvency frameworks received attention in the economic literature in the past two decades. Broadly speaking, the literature considers as efficient an insolvency framework that prevents fire-sale liquidations (e.g. Acharya et al., 2008), ensures continuation of businesses where the going concern has greatest value (Djankov et al., 2008), and guarantees creditors' rights (La Porta et al., 1997) while ensuring that the owners have the right incentives to preserve the value of the distressed company (Bebchuk, 2002, von Thadden et al., 2010). A number of studies had an empirical orientation, and were aimed at constructing efficiency scores based on corporate insolvency legislation (e.g., the index of secured creditor rights by La Porta et al., 1997, and Djankov et al., 2007). Djankov et al. (2008) propose a practitioners' survey-based index of the likely outcome of a fictitious corporate insolvency (used in the World Bank Doing Business Indicators). Davydenko and Franks (2008) assess insolvency outcomes in three European countries.

A number of broad principles have been advanced in international fora regarding insolvency. International fora including international professional associations (INSOL, 2000), the UN (UNCITRAL, 2005), the World Bank (2015) have carried out work aimed at defining a number of common elements regarding corporate insolvency (see Liu and Rosenberg, 2013). In particular, INSOL has compiled in 2000 a list of statements of principles for multi-creditor workouts. The World Bank in 2001 has for the first time put in place a number of principles and guidelines for effective insolvency and rights for creditors and debtors, updated in 2005, 2011, 2015. For personal insolvency, common soft law principles are less well established, as the country-specific context plays a more relevant role in this case (see, e.g., Laeven and Laryea, 2009; World Bank, 2011). For instance, in countries where home ownership is less widespread and property is concentrated among corporations or wealthy individuals, exceptions to foreclosures could be less easily accepted than in countries where home ownership is pervasive and rental markets are relatively underdeveloped.

The sections below elaborate more on the economic rationale underlying insolvency frameworks. The discussion that follows is based on existing literature and international best practices. A distinction is made between corporate and personal insolvency frameworks. A separate discussion is devoted to additional government intervention that could be warranted in times of pervasive debt distress and to flanking policies needed to ensure the effectiveness of insolvency frameworks in addressing a debt overhang.

4.1 MAIN ECONOMIC TRADE-OFFS

Broadly speaking, an efficient insolvency framework has to ensure that non-viable debts are resolved while viable debts get repaid. Achieving such an outcome requires that the framework i) is able to distinguish the two types of debtors reliably and at an early stage; and ii) creates the right incentives for each type (resolution for one, repayment for the other). Based on Table 1, a good regime needs to minimise the occurrence of both loans that are viable but non-performing (strategic defaults), as well as those loans that are economically non-viable but performing (unproductive loans). The extent to which such an objective can be achieved depends on the solution of a number of trade-offs.

The main trade-offs arising in the economics of insolvency frameworks can be summarised as follows:

Rules versus discretion. The degree of discretion applied affects the predictability and speed of the process.

- *Rules-based regimes*. Such systems are in general more automatic in both triggering insolvency as well as in how the procedure is carried through. This makes the results of the process more timely, predictable and consistent. Rules-based regimes are suited for large-scale debt resolution cases.
- *Discretion-based regimes.* Procedures relying on the discretion of the institution in charge (typically courts) may often fit individual circumstances better.

Informal versus formal settlements. This refers to the extent of court participation and may affect the length, cost and fairness of the outcome.

- *Formal procedures*. The involvement of courts in enforcing insolvency ensures the legitimacy and definitiveness of decisions taken.
- *Informal procedures*. In informal procedures, courts' involvement is typically limited to approving the informally negotiated settlement and providing the fall back for disputed cases. Court approval is necessary especially when a settlement is made against the will of a minority of dissenting creditors. Informal approaches are more flexible, efficient in resolving specific situations (owing to their voluntary nature), and protect confidentiality.[10]

Full recourse versus non-recourse. Full recourse versus non-recourse treatment of secured loans determines which party bears the asset risk, the debtor or the creditor.

- *Non-recourse lending*. In this regime, a debtor that fails to service debt may, at worst, have this collateral repossessed or foreclosed. Therefore, the non-recourse rule effectively passes on a significant part of the asset risk from the debtor to the creditor. Non-recourse liabilities can enable faster reduction of indebtedness on the debtor's side, but at the cost of a more adverse shock to lenders' balance sheet.
- *Full-recourse lending.* By contrast in this setting, the secured loan or mortgage remains a personal liability for the debtor, irrespective of the collateral value. Depending on the rules of insolvency, this remaining balance may or may not be subject to personal insolvency proceedings.

Repayment by means of assets versus income. In the choice of how to extract value for creditors when debtors are unable to meet their full recourse liabilities, there are two possible directions: seizing (non-pledged) assets or obliging debtors to hand in future income.

- *Seizure and liquidation of assets*. A debtor's assets can be used to cover the outstanding debt balance, usually with a special treatment for assets that served as collateral. Exemptions can be granted to some assets (e.g., primary residence, personal belongings up to a threshold amount, etc.). Besides the negative economic and social effects on the debtor, asset seizure or liquidation is a costly process to the creditor as well, with forced sales of real estate assets usually yielding reduced proceeds for the creditor and likely imposing negative externalities on other assets (see Campbell et al., 2011). On the positive side, asset seizures and liquidations generate an effective *ex ante* incentive for debtors to comply with contractual obligations.
- *Seizing future income.* The insolvent debtor's future income is partially or fully (apart from a living allowance) handed over to creditors to cover their claims. This lasts the full length of the "discharge" period at which point any obligation ceases.[11] The longer the discharge period, the greater the value recovered by the creditors. However, seizing all excess income removes the incentive for the debtor to generate income, irrespective of the length of the discharge period.

[10] However, they may be less good at detecting debtors' avoidance actions (actions imminently preceding the occurrence of distress that affect the outcome for creditors) or even fraudulent behaviour compared to formal procedures (Garrido, 2012).

[11] In the same vein, repayment plans (for persons and firms), possibly extending for a longer period, may be seen as a form of seizing future income.

Respecting versus deviating from the absolute priority of claims. As a general rule, insolvency frameworks should respect the priority of claims as defined in applicable law. Some deviations from this rule may however be justified in specific circumstances.

- *Respecting absolute priority*. During the resolution process, stakeholders' claims are treated in the usual order of priority: junior claims are satisfied only after more senior ones have been repaid in full. In particular, secured creditors retain the highest priority, whereas shareholders are the ultimate residual claimants. Respecting the priority of claims has the advantage of predictability and fairness with respect to *ex ante* contractual agreements.
- *Deviating from absolute priority.* Deviations from absolute priority may be warranted in exceptional situations where they lead to higher recovery value for all creditors and respect general principles of fairness.

4.2 EFFICIENCY PRINCIPLES FOR CORPORATE INSOLVENCY

Early resolution of debt distress should be encouraged as it maximises the value recovered for creditors, and minimises the cost to the economy.[12] The loss of value in corporate insolvency is in general higher the longer the time of distress.[13] Indeed, firms in distress can allocate fewer resources to normal operations, thereby contracting their income-generation capacity and losing value over time. A number of features of insolvency frameworks contribute to an early triggering of the resolution process and to its fast completion:

- *Early warning tools should be widely used and integrated with preventive resolution mechanisms.* Efficient early warning tools should enable corporate debtors, most notably small and medium-sized ones, to test regularly their financial soundness. They should ensure, when appropriate, a timely resort to preventive debt restructuring options by either the debtor or the creditor.[14]
- *Informal agreements with limited court involvement should be both available and encouraged.* This is especially the case when the judicial system capacity and its financial expertise are low, or if it becomes congested due to a systemic level of debt distress. In order to favour creditor participation in early procedures, the implementation conditions (required voting majorities, types of creditors covered, availability of advanced resolution tools etc.) should not disadvantage informal or preventive procedures compared to formal insolvency.[15]
- *Insolvency procedures should be easy to start for both debtors and creditors according to clear criteria.* Simple rules-based initiation criteria should be applied to debtors' requests for entering in the procedure. Creditors should also have the possibility to initiate both informal/preventive as well as formal procedures. In line with this principle, the Resolving insolvency index scores higher the easier it is for either of the parties to initiate the procedure.

Insolvency frameworks should ensure that firms with viable activities are reorganised, while non-viable firms are promptly liquidated. Non-viable firms may strategically seek protection in

[12] The Doing Business initiative's Resolving insolvency index also reflects the objective of dealing with resolution of debt in a timely, cost-efficient and predictable manner (see Djankov et al., 2008).

[13] See, e.g., Garrido (2012). For instance, Spanish data on recovery rates contained in Colegio de Registradores de la Propiedad point to an economically significant premium to early resolution. Recovery rates in early proceedings tend to be significantly higher than those in later proceedings (a difference of about 20 pp. in the recovery rate was observed in 2014).

[14] Note that the Doing Business Resolving insolvency index scores higher if the possibility of restructuring is available.

[15] It should be acknowledged however that majority voting could imply a disadvantage for small creditors, for instance SMEs that have unsecured credits in light of trade relations.

reorganisation procedures, thereby lengthening the period of distress, reducing the residual value of assets and using up resources of the judicial system. By contrast, piecemeal liquidation is suboptimal for companies with economically sound assets, as more value can be restored if assets remain in operation. It needs to be stressed that separating viable from non-viable debt is a challenging task that requires mechanisms to make available necessary information on debtors' conditions and adequate infrastructure in terms of court capacity and skills of extra-judicial practitioners.

The framework should be supportive of the continuation of viable firms both during the restructuring process and afterwards. A flexible resolution toolkit should ensure the continuity of operations of the company during the process as well as following resolution. In order to cater for the multitude of possible situations related to corporate debt distress, a wide range of resolution tools should be available in conjunction with flexibility in their implementation and appropriate supporting procedural measures. Most notably:

- *Measures ensuring the continuation of operations of a company during the stages of debt resolution should be in place to preserve residual value available for the claimholders.* The negative consequences of debt distress on the operations of a company should be minimised (e.g., through temporary stays on creditor enforcement actions, and debtor-in-possession preventive restructuring regimes). Moreover, the right incentives for the funding of viable companies in distress should be implemented.
- *Deviations from the absolute priority rule may be justified, but they should be strictly limited to cases where they increase the recovery rates for all creditors by keeping viable companies in business.* As a general rule, the priority of claims should be respected in all insolvency procedures. In reorganisations, shareholders should only retain an equity stake when this is justified by their role in ensuring the survival of the firm (such as when ownership and management of the firm overlap as in SMEs). Participation of secured creditors in reorganisation proceedings should be incentivised if pledged assets are crucial for the operations of the firm.

Some of the above principles are reflected in the 2014 Commission recommendation on a new approach to business failure and insolvency (Appendix 1). A recommendation was issued in 2014 to clarify good principles on which insolvency reforms should be based. The underlying principles focus on early restructuring frameworks and on means to ensure honest entrepreneurs a second chance by discharging them from unproductive debt within a reasonable time frame.

Clear rules on cross-border insolvency are required for a speedy workout of corporate insolvency in case of transnational corporations. Firms that span across geographical borders can be subject to different law jurisdictions. Uncertainty arising with how insolvency is treated can be an important impediment to debt resolutions. Clarity in the way that such cases are handled in the event of the default can help both the initiation of transnational firms as well as their quick resolution in the event of bankruptcy.

In the above respect, cross-border insolvencies are disciplined by an EU regulation (see Appendix 1). A Council Regulation on cross-border insolvency proceedings entered into force in 2000 and was recast in 2015, in order to modernise practices as well as align regulation with the more recent European Union objectives.

4.3 EFFICIENCY PRINCIPLES FOR PERSONAL INSOLVENCY

Distress prevention, early warning mechanisms and timely resolution should be at the core of a personal insolvency framework. As in the corporate case, there are merits to addressing household debt distress early on. This is due to the effects of time on the residual value for creditors, but also to the existence of several feedback loops affecting economic activity, asset markets and the financial sector, which may amplify the problems (see Laeven and Laryea, 2009). The prevention of financial difficulties should be a continuous process that starts at origination and runs until debt repayment.

- *The creditor, especially if it is a financial institution, should be responsible for the earlier part of prevention* (INSOL, 2000). Experience has shown that prevention delivered by the lender is often insufficient, as illustrated by the subprime crisis in the US, or by recent foreign exchange lending problems in several EU Member States. Guidelines for responsible lending were for example introduced by the Mortgage Credit Directive.[16]

- *As the debtor approaches distress, prevention needs to become more targeted, assertive and automatic*. More proactive prevention mechanisms should be triggered either voluntarily by the debtor, or by the creditor following first signs of distress such as missed payments, apparent drop in income, etc. Such prevention may involve independent debt counselling, tests of financial distress and legal advice (Reifner et al., 2003, Calogirou et al., 2010). Like in the case of corporates, personal early warning tools should, when appropriate, directly channel debtors to preventive debt restructuring options.

A personal insolvency mechanism should be available at affordable cost and encourage timely and definitive resolution. Symmetrically to corporate insolvency, a flexible resolution toolbox should be in place for addressing different types of personal debt distress.

- *A personal insolvency procedure should be in place to enable an effective fresh start.* For the debtor, the consequences of insolvency (especially in a full-recourse setting) can be adverse and protracted. An easily accessible, predictable personal insolvency procedure should create a genuine possibility of a fresh start. In this respect, the European Commission has put forward recommendations to EU countries with a view to ensure a fresh start for insolvent entrepreneurs (see Appendix 1).

- *Settlements with creditors should be encouraged.* Given the potentially high number of personal insolvency cases that may congest even a well-performing judicial system informal solutions are preferable (Laeven and Laryea, 2009). To ensure creditor participation, positive incentives for creditors should be considered in addition to using the formal insolvency procedure as a backstop.

- *Affordability of the procedure should be ensured taking into account direct and indirect costs.* Debt resolution may involve direct administrative costs of accessing the procedure, as well as indirect costs linked to legal and expert advice. Solutions should be envisaged to avoid that the level of costs discourages the use of the procedure.

The recovery of value to creditors should be done in a way compatible with debtors' prospects and incentives for future income generation. The relative use of debtor's assets and future income for recovering value for creditor claims should reflect the degree and source of distress.

- *The insolvency mechanism may ensure higher recovery for creditors by taking into account different distress situations.* The personal insolvency framework should take into account that debtor situations may differ strongly. Availability of assets, current and future income prospects, existence of secured debt, recoverable value of collateral – these are all factors that should be reflected in the outcome of debt resolution.

- *Debt restructuring using repayment plans is suitable for debtors in moderate and/or temporary distress who retain acceptable income prospects.* Claims on income for repayment may be warranted for debtors that retain good, albeit possibly reduced, prospects for generating income. To avoid disincentive effects for income generation, repayment plans should preferably be defined based on pre-defined payments rather than on the concept of "excess income" (e.g., all income in excess of an allowance for living expenses would be directed to past debt repayment).

---

[16] Directive 2014/17/EU of 4 February 2014 on credit agreements for consumers relating to residential immovable property, OJ L 60, 28.2.2014, pp. 34–85.

- *Full debt discharge after a limited period of time should be available for strongly distressed debtors.* Debtors that have been through liquidation or that had no assets should be fully relieved of any obligations after a limited discharge period, during which a share of income (again, preferably avoiding the "excess income" concept) may still be seized for the benefit of the creditor.

4.4 GOVERNMENT INTERVENTION AND FLANKING POLICIES

The numerous coordination problems and externalities arising in large-scale debt resolution justify a certain degree of public intervention. The role of national authorities is twofold. First, they should ensure that an effective insolvency framework is in place, and adapts where necessary both its legal and institutional elements to the magnitude of the challenges. Second, governments need to put in place a number of flanking policies to support and encourage the actual use of insolvency frameworks by private agents.

Adapting the insolvency system to large-scale debt distress may require also strengthening the institutional framework.

- *Special debt resolution measures*. Special government measures can be used to complement the normal legal framework, provided they are compatible with state aid rules. Their purpose is to mitigate coordination problems that arise in large-scale debt resolution.
  - Authorities may need to be active in encouraging the initiation of large scale debt resolution processes to overcome coordination failures leading to inertia.
  - Temporary revisions of enforcement conditions, such as foreclosure moratoria, or government-sponsored initiatives to prevent disorderly large-scale foreclosure can be used to reduce negative externalities linked to excessive depreciation of collateral assets and address social distress.
- *Enhanced information.* The availability of accurate and timely information about debtor's liabilities (common debt registries), assets (immovable and some movable assets), and income (possibilities to cross-check income declared for the purposes of debt resolution) are a pre-condition for the correct functioning of insolvency frameworks.
- *Institutional framework reforms*. Reforms are usually needed to ensure sufficient court capacity to deal with high numbers of insolvencies.

Additional flanking policies may be needed to ensure proper functioning of insolvency frameworks.

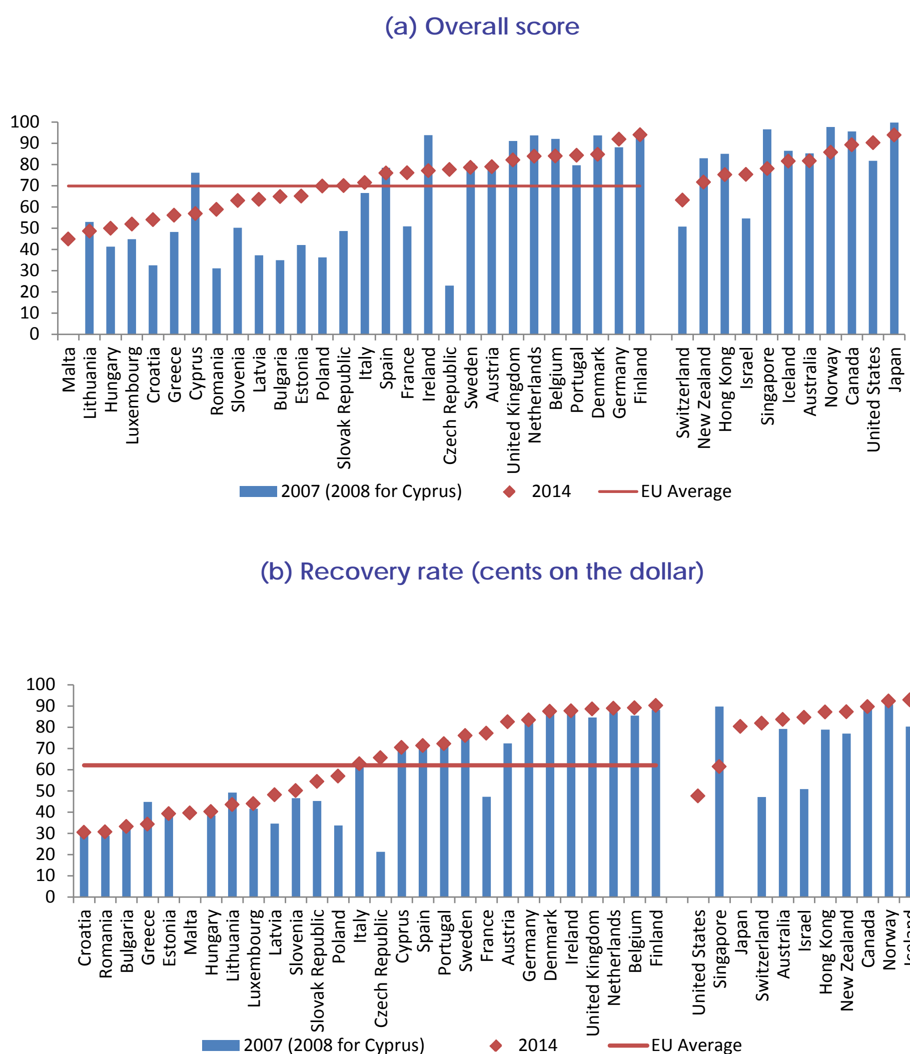
- *Recapitalisation of banks.* Large-scale debt resolution initiatives may reveal capital shortfalls in under-provisioned banks. Recapitalisations (market-based or by public authorities) are often a necessary complement to greater resort to insolvency frameworks.
- *Supervisory policies.* Stricter prudential supervision can foster resolution of bad debt by coupling higher capital requirements, conservative valuation rules and time-bound resolution targets (Aiyar et al, 2015).
- *Creation of Asset Management Companies (AMCs).* The creation of public or private AMCs is often instrumental in triggering a faster and more effective workout process of NPLs (Aiyar et al, 2015). AMCs would buy NLP stocks from distressed banks according to ex-ante criteria and manage their restructuring. The advantages include the ability to benefit from economies of scale, expertise for NPL management and recovery, and allocate asset disposals over the needed horizon.
- *Fostering secondary markets for NPLs*. The development of secondary markets for NPLs helps the offloading of bad debt from the balance sheets of the banks with higher shares of NPLs and permits to define a price at which AMCs could buy NPLs from distressed banks.
- *Tax incentives.* Tax implications of debt resolution should be assessed to avoid disincentives both on the creditor and the debtor side. For example, limited tax deductibility of write-downs and provisions can be a barrier to the use of debt resolution.
- *Social policy measures.* Social policy measures should ensure that the debt resolution through insolvency frameworks does not generate excessive hardship on the most vulnerable debtor categories (notably, mortgage debtors subject to foreclosures). Moreover, the interconnection of indebtedness with housing requires both provision of social backstops as well as introducing innovative private solutions (e.g., mortgage-to-rent schemes).

5. OVERVIEW OF INSOLVENCY FRAMEWORKS IN THE EU

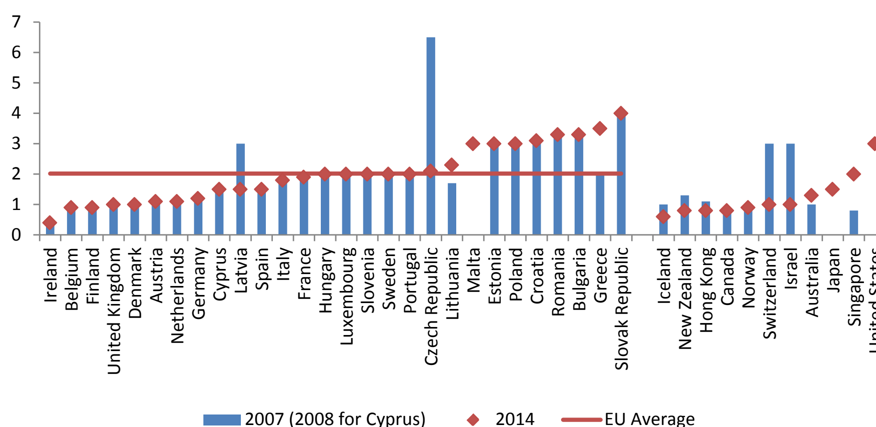
5.1 EFFICIENCY OF INSOLVENCY FRAMEWORKS: A LOOK AT SYNTHETIC INDICATORS

Synthetic indicators provide evidence on the efficiency of insolvency regimes. Such indicators deliver information in synthetic way that permits easy cross-country comparisons. However, caution is needed in interpreting such indicators as their construction is based on a number of assumptions (see Appendix 1). Moreover, they offer a partial picture as they refer to corporate insolvency only. Based on the World Bank Doing Business survey, Graph 9 describes the overall insolvency score, the average recovery rate, and two of its sub-components, namely the time to resolve debt, and the costs associated with insolvency. The composite insolvency indicator describes the distance to frontier: with 100 being the most efficient regime (see Appendix 1).

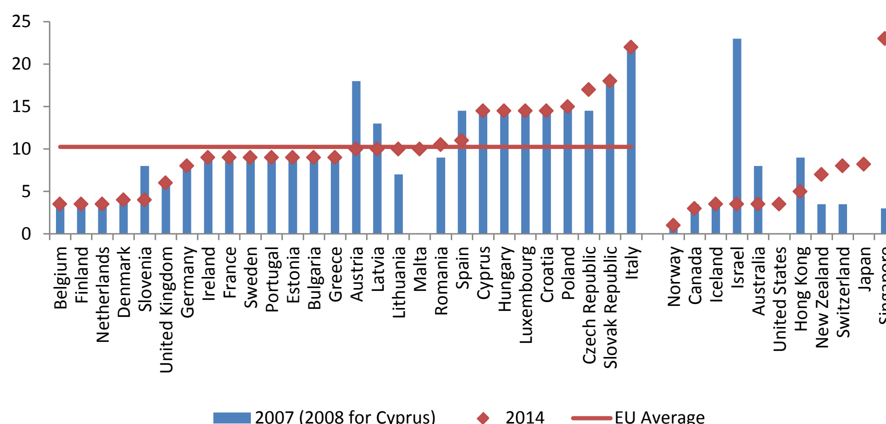
Graph 9: **Rankings from Doing Business insolvency indicators**



(c) Time to resolve debt (years)



(d) Cost for resolving debt (% of estate value)

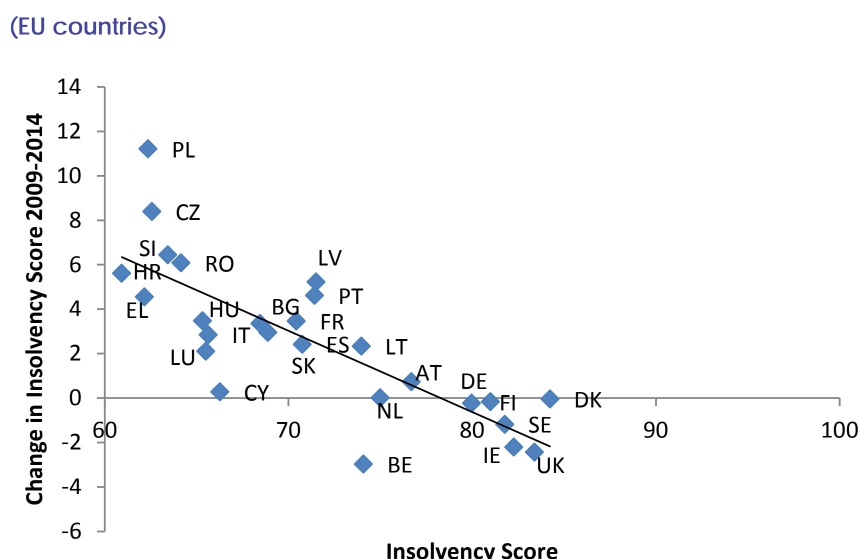


Source: Doing Business, World Bank, authors' calculations.

Note: there has been a recent change in methodology in Doing Business.

Quantitative indicators point to considerable variations across the EU. The average ranking for EU countries is slightly below that of non-EU advanced economies. Across the EU, the variation is stronger for what concerns the indicator on recovery rates than the overall score (the overall score is a simple average of the recovery rate indicator and the indicator of the "strength" of the insolvency framework (see Appendix 1)). Such relatively wide variation in the indicator for the recovery rate is underpinned by an even greater variance in its sub-components: both the time and the cost to resolve differs widely across EU countries. There is no straightforward pattern for the insolvency score across the EU, although Anglo-Saxon and Nordic countries tend to have relatively higher scores both for what concerns the overall indicator and recovery rate indicator.

Graph 10: **Insolvency score in 2009 and change of score between 2009 and 2014 (EU countries)**



Source: Doing Business, authors' calculations

Note: the higher the value, the better the insolvency system

Indicators have varied considerably over the crisis period, mainly pointing in the direction of increased efficiency of insolvency framework. It also appears that the EU countries that exhibit the strongest progress are those that had relatively low scores prior to the crisis (Graph 10). This pattern may reflect reforms that were carried out to enhance the insolvency framework as a tool to deal with unviable firms during the crisis period.

5.2 SELECTED CHARACTERISTICS OF INSOLVENCY FRAMEWORKS IN A SET OF EU COUNTRIES

With a view to assess differences in the way insolvency regimes are organised, indicative aspects of insolvency legislation have been reviewed for selected EU countries. The summary is presented in Table A. The review focuses on three important elements of insolvency frameworks: the balance between formal and informal procedures, the handling of debtor's assets, and the treatment of the individual debtor's income stream. Regarding the selection of countries, the analysis focuses on a number of countries that reformed recently their corporate and/or personal insolvency frameworks and on countries whose insolvency frameworks are representative examples of polar models found across the EU.[17]

The countries selected on the basis of their recent reforms are as follows[18]:

[17] Other countries have reformed their insolvency framework recently, for example Portugal and Slovenia. The selection criterion for this note was to show the broadest range of differences in the current legal set-ups..

[18] The description of reforms below partly draws on Bergthaler et al (2015).

- **Croatia** was previously characterised by an insolvency framework that was lacking provisions for early corporate restructuring. The country introduced a pre-insolvency procedure in 2012 and implemented a broad reform of corporate and personal insolvency that was implemented in 2015.

- **Cyprus** introduced a number of important reforms in 2015. It covered both personal and corporate insolvency as well as changes to the framework for bankruptcy. The reform had as an explicit objective to ensure a proper balance in the incentives of creditors and debtors with a view to improve payment discipline and provide for appropriate mechanisms for vulnerable debtors with smaller debts as well as giving companies the possibility of a "fresh start".

- **Greece,** despite having a relatively advanced insolvency law, has so far seen suboptimal outcomes in dealing with outstanding bad debts due to both the systemic nature of the debt issue, as well as to institutional bottlenecks in implementing the insolvency regime. It has made a number of reforms since 2010, including the introduction of a pre-insolvency regime. It simplified procedures for SMEs in the insolvency regime and put in place a number of support schemes for SMEs. In 2014 Greece adopted an out-of-court framework that enables debt reduction based on economic means, as well as a corresponding tax credit for creditors and a restructuring of public creditors' claims according to instalment schemes for public claims. Two temporary protection schemes of primary residences were negotiated in 2015.

- **Ireland** was characterised by a modern corporate insolvency framework even before the crisis, while the personal insolvency regime was not very conducive to the fresh start principle. The authorities established an Insolvency Service in 2012. In 2013 Ireland introduced a new set of restructuring processes in personal insolvency. The authorities have put in place a scheme to support distressed SMEs including financing funds.

- **Italy** has started modernising its corporate insolvency framework early on in the 2000s. Since the onset of the crisis, the country has experienced a surge in NPLs which has pointed to the need for further reform both on the legal as well as institutional front. In 2012, Italy introduced particular procedures for personal insolvency, while also addressing corporate insolvency as regards fresh financing. In 2013, Italy initiated a number of wide-ranging judicial reforms to increase court performance management and the specialization of the judiciary. In 2015, Italy reformed some aspects of corporate insolvency.

- **Latvia** was hit by a current account crisis earlier than most other EU countries, leaving the country with high levels of private debt that quickly pointed to weaknesses in the insolvency regime. The country undertook an insolvency reform in 2010 by strengthening overall debt enforcement frameworks, adopting nonbinding guidelines for out-of-court debt restructuring, and introducing a pre-pack restructuring of debt. More recently, the country introduced additional protections for the debtor, while also focussing on the institutional framework.

- **Romania** has undertaken an insolvency reform in 2012, for addressing problems in SMEs and favouring informal resolutions. This involved adopting nonbinding guidelines for out-of-court debt restructuring for all businesses following international standards.

- **Spain**'s corporate insolvency framework has been historically leading to an overwhelming majority of liquidations, while the regime for natural persons provided limited scope for fresh start. The country has since undertaken a number of reforms to improve the likelihood of corporate restructuring and to facilitate personal insolvency. In 2013 reforms were introduced, for instance, to shorten out-of-court settlements, in 2014 to strengthen the incentives for fresh post-commencement financing and to facilitate debt for equity swaps, and in 2015 to enhance the personal insolvency framework.

The other countries selected are the following

- **France** has an insolvency framework with a very strong rescue culture. For corporations, the main objective of the formal procedure is to preserve activity and employment. For individuals, a formal

procedure enables immediate discharge following asset liquidation. Several reforms were introduced in the recent years, in particular on the corporate side.

- **Germany** represents a country with a flexible insolvency toolbox for addressing corporate distress. In 2012 Germany introduced a pre-insolvency regime for SMEs, and a pre-pack for facilitating restructuring of debt before insolvency proceedings are initiated. The personal insolvency framework is also advanced and supportive of a fresh start following liquidation, with requirements on repayment conditioning short discharge periods.

- **The Netherlands** has an insolvency framework which enables restructuring of unsecured debt, but with a relatively wide scope for opt-out of secured creditors. As regards personal insolvency, the regime enables fresh start conditioned on asset liquidation and seizure of excess income.

- **The United Kingdom** has an insolvency system that encourages informal solutions and dissociates the resolution schemes from the choice of insolvency status, thereby enabling their use preventively or once insolvency occurs. The framework proposes a range of resolution schemes for individuals, with a bankruptcy proceeding combining a liquidation with excess income seizure.

The review of insolvency frameworks in the selected countries permits to distil a number of messages.

- First, there is *substantial heterogeneity* among EU Member States in insolvency frameworks overall, but *most notably in what concerns personal insolvency*. Related to this point, although there was a general tendency to revisit corporate insolvency proceedings, many countries also reformed quite fundamentally their personal insolvency frameworks.

- Second, there remain *significant differences in how countries enable early and swift handling of debt distress* of firms and individuals. This remains the case despite recent reforms in several countries establishing or strengthening pre-insolvency regimes, and promoting out-of-court mechanisms.

- Third *differences remain regarding debtors' obligations in the process*. An important difference is that *small companies and entrepreneurs* fall under the corporate insolvency framework in some countries, while for others they are dealt with together with individuals. Also, there are dissimilarities in countries' emphasis given to restructuring versus liquidation, or in how individual debtors' future income is committed to rescuing value.

More particularly, the review reveals a number of patterns as follows.

- **While almost all Member States recognize the need for a mix of informal and formal procedures, only some have an explicit requirement to use them sequentially.** Germany, the Netherlands, or Spain tend to require that parties first try to find an informal out-of-court settlement and only failing that, start formal procedures. In other countries, the attempts at reaching an informal settlement are customary but they are not formally required (e.g., the UK). In other countries, still, the choice of the type of procedure by the parties is not being influenced by the system, except when a structured informal procedure is outright missing.

- **Informal procedures are often subject to stringent requirements or are constrained in scope.** Informal and preventive arrangements are often initiated by the debtor only, unlike formal procedures that are generally available to both debtors and creditors. Informal agreements do not affect the rights of some types of creditors, such as secured, labour or public ones (e.g., Croatia, Spain). In-court voted plans can usually span all types of creditors (except the Netherlands, allowing secured creditors to stay outside of insolvency proceedings).

In some countries (e.g., Italy, Romania and Croatia) structured informal procedures are not available to small entrepreneurs and consumers, who need to rely either on pure out-of-court voluntary agreements, or on in-court resolution.

- **Insolvency of small entrepreneurs is handled in some countries under corporate insolvency, while in others it follows the rules in place for insolvency of individuals.** In France some of the options available to individuals are not available to entrepreneurs. The Spanish accelerated process is applicable for both consumers and entrepreneurs, as is the Irish three-level debt resolution. In Romania, individual insolvency is only available to consumers, and entrepreneurs are covered by corporate resolution tools.

- **While all countries have regimes that target the survival of viable businesses, the most common outcome of insolvency in many countries tends to be liquidation.** In some Member States rescuing the firm activity is the stated objective of the framework, which can be obtained either preventively or in a formal reorganisation (e.g. France, the UK). In other countries, despite available reorganisation tools, liquidation is the likely outcome (e.g. Italy, Spain, before recent reforms). Countries also differ in whether formal reorganisation leads to the loss of control by the former owners and management or whether control remains with them (in general or/and under special circumstances).

- **The handling of assets of insolvent individuals reveals two dominant models: those where seizure or liquidation is required for debt discharge, and those where considerable exemptions are available.** For a number of countries, only very limited exemptions exist regarding the requirement of seizure or liquidation of assets (e.g., Spain, Germany, the Netherlands). Conversely, some countries may exempt primary dwellings from repossession under some circumstances (Croatia, Greece), or at least tend to protect seizure or liquidation of assets when an agreed repayment plan is fulfilled (Ireland, Italy, Romania, France). In the case of France, an exemption of primary dwellings from repossession applies for entrepreneurs' debt from professional activity.

- **In almost all countries debtors' future income is used for recovering value for creditors in formal insolvency, but with differences in terms of the formulation of repayment plans.** In most countries repayment plans are mandatorily preceded by liquidation of assets (e.g., Germany, Spain, or the UK), but in some countries the two are seen as alternatives (Italy or Romania). As for repayment modalities, in some countries all income in excess of an exempt level is handed over to creditors (e.g., Germany, the UK, the Netherlands). Alternatively, repayments can be defined as a share of income (Latvia) or as a schedule of fixed payments (e.g., Ireland), which may imply risks for the debtors but also stronger incentives for generating additional income.

- **Formal personal insolvency rules also differ as regards the length of the discharge period.** On the one hand, countries like France allow for immediate discharge after the sale of valuable assets or in the absence thereof. Next, in the UK debtors are automatically discharged after 12 months, but with payments of up to 3 years. On the other hand, in a majority of countries the discharge period is well above 3 years, but can be shortened conditional on the total value repaid (e.g. Romania, Germany). The possibility of discharge is done under conditions that are broadly similar for consumers and entrepreneurs, whenever the latter are covered by personal insolvency rules.

5.3 CONCLUSIONS: REFORM PRIORITIES FROM AN ECONOMIC PERSPECTIVE

Priorities for reform of insolvency frameworks going forward reflect to a large extent countries' individual situations. The previous section emphasised the heterogeneity in selected EU Member States' insolvency regimes in place. This heterogeneity is a result of both very different starting positions regarding the existing frameworks, as well as different reform dynamics in the recent past. Moreover, as

discussed above, countries' current situations also greatly differ as regards their economic and financial conditions, in particular the extent to which private debt weighs on economic activity. The reform priorities looking forward need to be articulated taking into account such country-specific situations.

Priorities for countries where reforms are primarily motivated by the need to address the debt overhang can be articulated as follows:

- *Completing recent reforms*. Several countries have implemented ambitious revisions of their insolvency frameworks in the recent past. These aimed at increasing the efficiency of resolution tools for non-viable debt, improving the incentives for early resolution of distress and enhancing the capability of the system to restore viability of moderately distressed debt. In these countries, the focus should be on completing the implementation of the reforms, including by issuing necessary administrative acts. The success of these reforms will also hinge on the readiness of the institutions and on the use of appropriate flanking policies. Dedicated monitoring of the outcomes should assess the effectiveness of the reforms both quantitatively and qualitatively and identify any malfunctioning or weaknesses in the system that need to be addressed. Several countries received recommendations aimed at ensuring the effectiveness of recent reforms as part of the program conditionalities, post-program surveillance or in the context of the European Semester (Croatia, Cyprus, Ireland, Portugal, Spain).

- *Planned or on-going broad reforms*. In countries where an overarching reform of insolvency frameworks is planned or in the pipeline, the design of the new system should reflect broad economic principles and international best practices discussed previously. Recommendations for Bulgaria in the framework of the European Semester and the Macroeconomic Imbalance Procedure, as well as reform initiatives in Greece in the framework of the financial assistance programme are cases in point. If reforms are primarily motivated by resolving large stocks of non-viable debt, a revision of the insolvency framework may need to be accompanied with adequate flanking and support policies, including strengthening the institutional set-up.

- *Accompanying recent reforms with adequate flanking policies.* In some countries the priority is not improving the design of the legal framework, but having in place the necessary flanking policies to make the existing insolvency framework effective in resolving debt. Such policies, as discussed above, range from financial sector to prudential policies, to tax measures etc. For instance, Italy received recommendations in the framework of the European Semester and the Macroeconomic imbalance Procedure aimed at ensuring a speedy resolution of high stocks of NPLs. Action in this respect may require a combination of bank supervision, fiscal, and judicial reforms, together with the development of a restructuring vehicle and market solutions for bad debt disposal (see Jassaud and Kang, 2015).

Second, reforms could aim at enhancing institutional frameworks to ensure an efficient functioning of insolvency procedures. As discussed above, differences in the outcomes of insolvency frameworks can be very substantial across the EU, reflected inter-alia in the large variations in the indicators relating to recovery rates, and the time and cost to resolve debt. Such differences imply that in some countries room exists to make the institutional settings for insolvency more efficient. Reforms in this respect should aim, inter-alia, at increasing court capacity and creating specialised in-court resources for insolvency cases (Aiyar et al., 2015). Skills of extrajudicial practitioners should be enhanced. Their performance should be subject to supervision and monitoring, while their remuneration should be designed to strengthen the incentives for swift resolution. In parallel, the quality and availability of information about debtors (liabilities, assets, and income) should be improved in such a way to ensure proper functioning of the insolvency frameworks in place.

Third, progress seems possible for what concerns the modernization of relevant features of insolvency frameworks, notably in terms of dealing with debt distress at an early stage and providing for a possibility of a genuine fresh start. The European Commission has addressed a Recommendation to the Member States to encourage them to put in place minimum standards on early

restructuring procedures and second chance for natural persons. The Commission assessment of the follow up to the recommendation reveals that, although the Recommendation provided a useful focus for those Member States undertaking reforms in the area of insolvency, the implementation was only partial.[19] The Recommendation has been taken up to some extent by Member States, especially by those receiving insolvency recommendations in the context of the European Semester and the Macroeconomic Imbalance Procedure. However, even those Member States which have taken up the European Commission Recommendation did so in a selective manner, meaning that differences remain quite pervasive.

Fourth, more generally, progress could be achieved over time in terms of reducing large asymmetries in insolvency frameworks across EU countries, with a view to fostering cross-border investment within the framework of Capital Markets Union. Looking ahead, including in light of the only partial achievements of the Commission Recommendation on a new approach to business failure and insolvency, convergence of national insolvency frameworks towards best practices would contribute to reducing legal uncertainty and costs for investors in assessing their risks, and to removing persisting barriers to the efficient restructuring of viable companies in the EU, including cross-border enterprise groups.[20] Addressing the persistence of such differences would contribute to the removal of national barriers to cross-border investment, as highlighted in the Commission Action Plan on Building a Capital Markets Union.[21] Council Conclusions on the Commission Action Plan encourage the Commission to "consult, without delay, the Member States with a view to identifying business insolvency law related barriers to the development of a single market for capital".

[19] Evaluation of the implementation of the Recommendation on a new approach to business failure and insolvency (http://ec.europa.eu/justice/civil/commercial/insolvency/index_en.htm)

[20] Economic analysis accompanying the CMU Action Plan SWD (2015) 183 final, Box 9, p. 77- 78: Evaluation of the 2014 Insolvency Recommendation.

[21] European Commission, Action Plan on Building a Capital Markets Union, Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee, and the Committee of the Regions COM(2015) 468 final, September 2015. Respondents to the Green Paper consultation on Capital Markets Union broadly agreed that both the inefficiency and divergence of insolvency laws make it harder for investors to assess credit risk, particularly in cross-border investments.

REFERENCES

Acharya, V., R. Sundaram, and K. John, 2008. Cross-country variations in capital structures: The role of bankruptcy codes, *Journal of Financial Intermediation* 20(1), 25–54.

Aiyar, S., W. Bergthaler, J. M. Garrido, A. Ilyina, A. Jobst, K. Kang, D. Kovtun, Y. Liu, D. Monaghan, and M. Moretti, 2015. A Strategy for Resolving Europe's Problem Loans, IMF Staff Discussion Note, 15/19, September.

Barkbu, B., S. P. Berkmen, P. Lukyantsau, S. Saksonovs, and H. Schoelermann, 2015. Investment in the Euro Area: Why Has It Been Weak?, IMF Working Paper, February .

Bebchuk, L. A. 2002. The ex-ante costs of violating absolute priority in bankruptcy, *Journal of Finance*, 57, 445–460.

Bergthaler, Wolfgang, Kenneth Kang, Yan Liu, and Dermot Monaghan, 2015. Tackling Small and Medium Sized Enterprise Problem Loans in Europe, IMF Staff Discussion Note**,** March.

Bornhorst, Fabian and Marta Ruiz-Arranz 2013, "Indebtedness and Deleveraging in the euro Area", 2013 Article IV Consultation on euro Area Polices: Selected Issues Paper, Chapter 3, IMF Country Report No. 13/206 (Washington).

Calogirou, C., S. Y. Sørensen, P.J. Larsen, and S. Alexopoulo, 2010. SMEs and the environment in the European Union, PLANET SA and Danish technological institute, Brussels: European Commission, DG Enterprise and Industry.

Campbell, J. Y, Stefano Giglio, and P. Pathak, 2011, Forced Sales and House Prices, *American Economic Review*, pp 2108–2131, August.

Cecchetti, S. G, M S Mohanty and F. Zampolli, 2015. The real effects of debt, Bank for International Settlements, Working Papers No 352, September.

Claessens, S., and L. Klapper. 2003. Bankruptcy around the World: Explanations of Its Relative Use, Policy Research Working Paper 2865, World Bank, Washington, DC.

Cuerpo, C, L. Drumond, J. Lendvai, P. Pontuch, and R. Raciborski, 2015. Private sector deleveraging in Europe, *Economic Modelling*, pp 372-383, Vol. 44.

Davydenko, S. A., and J. R. Franks, 2008. Do Bankruptcy Codes Matter? A Study of Defaults in France, Germany, and the U.K., *The Journal of Finance*, pp 565–608, April.

Disney, R., J. Haskel, J., and Y. Heden, 2013. "Restructuring and Productivity Growth in UK Manufacturing", *The Economic Journal*, July.

Diwan, I., and D. Rodrik, 1992. Debt Reduction, Adjustment Lending, and Burden Sharing, NBER Working Papers 4007.

Djankov, S., C. McLiesh, and A. Shleifer, 2007. Private Credit in 129 Countries, *Journal of Financial Economics*.

Djankov, S., O. Hart, C. McLiesh, and A. Shleifer, 2008. Debt Enforcement around the World, *Journal of Political Economy*, vol. 116, no. 6, pp 1105-1149.

Dynan K., Mian A. and Pence K., 2012, Is a Household Debt Overhang Holding Back Consumption?, *Brookings Papers on Economic Activity*, Spring, pp 299-362

European Commission, 2011. Report of the Expert Group: A Second Chance for Entrepreneurs: Prevention of Bankruptcy, Simplification of Bankruptcy Procedures and Support for A Fresh Start, January.

European Commission, 2014. European Economic Forecast, EUROPEAN ECONOMY, 7.

Garrido, J. M. 2012. Out-of-Court Debt Restructuring, A World Bank Study, World Bank.

Guiso, L., P. Sapienza, and L. Zingales, 2013. The Determinants of Attitudes toward Strategic Default on Mortgages, *The Journal of Finance*, VOL. LXVIII, NO. 4, August.

INSOL, 2000. Statement of Principles for a Global Approach to Multi-Creditor Workouts, December.

Jassaud, N., and K. Kang, 2015. A Strategy for Developing a Market for Nonperforming Loans in Italy. IMF Working Paper No. 15/24.

Jordà, O., H. Schularick, and A. Taylor, 2013. "Sovereigns versus banks: Credit, Crises and Consequences", NBER Working Paper No. 19506, October.

Krugman, P, 1988. Financing vs. Forgiving a Debt Overhang, *Journal of Development Economics* 29 (3), 253-268.

La Porta, R., F. Lopez-de-Silanes, A. Shleifer and R. W. Vishny, 1997. Legal Determinants of External Finance, *Journal of Finance*, American Finance Association, vol. 52(3), pp 1131-50, July.

Laeven, Luc and Thomas Laryea, 2009. Principles of Household Debt Restructuring, IMF Staff Position Note 09/15, June.

Landier, A. , 2004, "Entrepreneurship and the Stigma of Failure", Working paper, NYU Stern School of Business.

Lee, S., M. W. Peng, and J. B. Barney 2007. Bankruptcy Law and Entrepreneurship Development: A Real Options Perspective, *Academy of Management Review*, 257-72.

Liu, Y. and C. B. Rosenberg, 2013. Dealing with Private Debt Distress in the Wake of the European Financial Crisis *A Review of the Economics and Legal Toolbox,* IMF WP/13/44, February.

Myers, S. C. 1977. Determinants of Corporate Borrowing, *Journal of Financial Economics*, 5 (2), pp 147-175.

Ozcan, S. K., L. Laeven and D. Moreno, 2015. Debt Overhang in Europe: Evidence from Firm-Bank-Sovereign Linkages, manuscript, March.

Pontuch, P. 2014. Private sector deleveraging: where do we stand?, Quarterly report on the euro area, European Commission.

Reifner, U., N. Huls, J. Niemi-Kiesiläinen and H. Springeneer 2003. *Study on the Legislation relating to Consumer Over-indebtedness in all European Union Member States,* Institute of the Financial Services e.V. Hamburg.

UNCITRAL, 2005. Legislative Guide on Insolvency Law, United Nations Commission on International Trade Law, New York.

Von Thadden, E.-L., E. Berglöf, and G. Roland, 2010. The design of corporate debt structure and bankruptcy, *Review of Financial Studies*, 23(7), 2648–2679.

World Bank 2011. Report on the Treatment of the Insolvency of Natural Persons, Insolvency and Creditor/Debtor Regimes Task Force.

World Bank, 2015. Principles for Effective Insolvency and Creditor/Debtor Rights Systems (revised 2015), the World Bank Group.

APPENDIX 1: EXISTING EU-LEVEL REGULATIONS AND RECOMMENDATION ON INSOLVENCY

Several instruments concerning various aspects of insolvency procedures were adopted at the EU level: (i) Regulation (EC) No 1346/2000 on insolvency proceedings, which was replaced by (ii) Regulation (EU) No 2015/848 on insolvency proceedings, and (iii) a Recommendation issued in 2014 and focusing on early restructuring frameworks and means to provide honest entrepreneurs with a second chance within a reasonable time frame.

The main objective of Regulation (EU) No 1346/2000 on insolvency proceedings was to provide a common framework for EU cross-border insolvency proceedings. The Insolvency Regulation established a European framework dealing with cross-border insolvency. This Regulation clarifies which court has jurisdiction for opening insolvency proceedings, determines which law and rules apply in these proceedings, and defines a number of common elements in terms of procedure. The Regulation became necessary in the context of a highly integrated internal market in which about one fourth of the total insolvency proceedings within the EU have a cross-border dimension.

Regulation (EU) No 1346/2000 was replaced in 2015 by Regulation (EU) No 2015/848 which will be applicable as of June 2017. The new Regulation has brought a number of useful innovations. Its scope was extended to include hybrid and pre-insolvency proceedings as well as to a broader range of insolvency proceedings for natural persons. It also clarified jurisdiction rules and established a system of interconnected insolvency registers to increase transparency on debtors. It enhances chances of rescuing companies by avoiding the opening of secondary proceedings where interests of local creditors are otherwise guaranteed (so-called "synthetic secondary proceedings"), and creates a specific legal framework to deal with the insolvency of members of a group of companies.

The Commission Recommendation on a new approach to business failure and insolvency[22] sets out common principles for national insolvency procedures for businesses in difficulties as well as measures aimed at reducing the length and costs of proceedings for SMEs. The Recommendation implementation notably focused on preventive restructuring procedures, as enterprises do not have the same opportunities to deal with their financial difficulties everywhere in the EU. Several conditions contribute to the efficiency of restructuring procedures, but six in particular seem to stand out:

- *The possibility to file early with the objective of avoiding insolvency:* The later a business initiates restructuring proceedings, the higher the costs of restructuring and the lower the management powers and success rate.
- *The position of the debtor:* In order to encourage debtors to address their financial difficulties at an early stage, they should be left in principle in control of the day-to-day operation of their business. This would also ensure that the least disruption to the activity of the enterprise.
- *The possibility of a stay on individual enforcement actions:* During negotiations on a restructuring plan, the debtor should be able to apply to a court for suspension of individual enforcement actions which could otherwise jeopardise the success of the restructuring process.
- *Adoption of the restructuring plans by creditors*: Restructuring plans should be adopted by creditors representing the majority stipulated under national law.

[22] European Commission Recommendation on a new approach to business failure and insolvency, 1500 final, 12.3.2014.

- *The protection for new finance granted in restructuring procedures:* Encouraging new financing is necessary to ensure the success of a restructuring plan.

- *The involvement of courts when third party rights could be affected*: While the Recommendation encourages some limits to the extent of court involvement, certain steps in a restructuring process require court involvement, notably when the rights of dissenting creditors are affected.

The Recommendation also concentrates on **second chance provisions**, urging Member States to provide for a reasonable discharge period of maximum three years from the opening of liquidation of assets proceedings or, in cases where a repayment plan has been approved, from the moment the plan is put into application.[23]

APPENDIX 2: RESOLVING INSOLVENCY: THE SYNTHETIC WORLD BANK DOING BUSINESS INSOLVENCY INDICATORS

The World Bank Doing Business database includes quantitative indicators measuring the recovery rate of insolvency proceedings as well as the strength of the legal framework applicable to liquidation and reorganization proceedings. The indexes are based on previous research by Djankov et al. (2008) and apply to corporate insolvency only.

A synthetic score of "resolving insolvency" is obtained as the simple average of an indicator on the recovery rate from insolvency proceedings and of the one on the strength of the insolvency framework. The indicators are often expressed as "distance to frontier", and hence range from 0 (the weakest) to 100 (the strongest).

The recovery rate indicator is recorded as cents on the dollar recovered by secured creditors through reorganization, liquidation or debt enforcement (foreclosure or receivership) proceedings and builds on separate indicators on time to complete insolvency, its cost, and the outcome. The outcome depends on whether the business emerges from the proceedings as a going concern or the assets are sold piecemeal. Then the costs of the proceedings are deducted (1 cent for each percentage point of the value of the debtor’s estate). Finally, the value lost as a result of the time the money remains tied up in insolvency proceedings is taken into account, including the loss of value due to depreciation of the hotel furniture (set conventionally at 20% a year). The recovery rate is the present value of the remaining proceeds.

The insolvency index that describes the strength of a country's insolvency framework is based on four indices: (i) commencement of proceedings (the easier to start proceedings for debtors or creditors the higher the score), (ii) management of debtor’s assets (the more advantageous the treatment of debtors' assets to company stakeholders the higher the score), (iii) reorganization proceedings (the score is higher if the legislation is in compliance with international principles of best practice); (iv) creditor participation (the higher creditors' participation in the definition of insolvency proceedings, the higher the score).

Data are derived from questionnaire responses by local insolvency practitioners and verified through laws and regulations reviews as well as public information on insolvency systems. The scores for each country are derived based on resolving a stylized business insolvency whose main asset is a hotel.

---

[23] With respect to personal insolvency Recital 15 of the Recommendation stated that although consumer over-indebtedness and consumer bankruptcy were not covered by the scope of this Recommendation, Member States were invited to explore the possibility of applying these recommendations also to consumers, since some of the principles followed in this Recommendation may also be relevant for them.

ANNEX

Table A. **Selected features of insolvency frameworks in a set of EU countries**

Country	Balance between formal and informal procedures	Handling of assets: seizure, reorganisation and liquidation	Handling of future income: repayment, debtor conduct and debt discharge
Croatia	**1. Scope of formal and informal procedures** Write-downs and reorganisation are available under preventive/informal and formal insolvency. They are available for corporates and entrepreneurs. Consumer insolvency under separate law enables write-down and discharge. Preventive restructuring does not affect secured creditors and labour creditors. Restructuring affecting public creditors is subject to approval of the authorities. Specific tools like preventive debt-to-equity swaps for financial creditors are subject to supervisory approval. **2. Voting and process in corporate insolvency** Voting is done by class and the voting requirements on preventive restructuring plans are similar to those applicable in formal insolvency. Formal insolvency proceedings are triggered automatically by the financial authority on debtors whose account is blocked for over 120 days. **3. Special provisions for individuals** Personal Insolvency is available for consumers and small entrepreneurs. An attempt at out-of-court settlement is mandatory, involving an intermediary, and requiring consensus of affected creditors. If unsuccessful, it is followed by a formal proceeding.	**1. Corporate insolvency** Debtors lose control during insolvency proceedings to an administrator, but the business may continue up to 18 months after the hearing, unless an insolvency plan is in place. A reorganisation plan can be proposed by the administrator to ensure survival of the firm. An alternative reorganisation procedure supervised by a commissioner but leaving the debtor in control can be approved by the court. The possibility of sale of debtor's assets as a whole enables going concern liquidations, if complemented with other measures (portability of contracts etc.). **2. Personal insolvency** **a. Foreclosure/repossession** **b. Provisions on liquidation** The court may grant the debtor the exemption of the primary residence from liquidation. Productive assets for self-employment after insolvency may also be exempted.	**1. Individual entrepreneurs** **a. Possibility of discharge** A discharge from remaining liabilities after liquidation can be achieved after 5 years. **b. Repayment and discharge** Discharge is conditional on good faith and efforts to generate income. **2. Consumers** **a. Possibility of discharge** Discharge can be achieved after 1 to 5 years. **b. Repayment and discharge** Discharge is conditional on good faith and efforts to generate income. The share of income to be transferred to creditors is set by the court applying a dignity principle. Preventive financial training may be requested by the court.

Country	Balance between formal and informal procedures	Handling of assets: seizure, reorganisation and liquidation	Handling of future income: repayment, debtor conduct and debt discharge
Cyprus	**1. Scope of formal and informal procedures** For companies, an arrangement procedure requiring court involvement (e.g., approval of decision) enables financial restructuring and reorganisation of companies. When approved, it is binding for all types of creditors. Corporate liquidation is fully formal and may take several years. **2. Voting and process in corporate insolvency** The arrangement procedure requires approval of a majority in number and a 75% value majority of creditors. It does not provide a stay on creditor actions. The decision to liquidate a company is subject to court discretion. **3. Special provisions for individuals** The personal repayment plan represents an alternative to judicial bankruptcy. It is drawn up by a practitioner, and can propose a voluntary repayment plan to creditors. A court can impose a protection period to prevent creditor action. The voluntary repayment plan requires a 66% creditor majority, which after court validation becomes binding for all creditors. In the case of a creditor refusal, the debtor can apply to the court. The court can impose a plan if a set of conditions are met regarding the amount of liabilities, the value of assets and the remaining debtor's income.	**1. Corporate insolvency** Secured or unsecured creditors can request the court to order that a company be liquidated. All corporate assets are subject to liquidation to satisfy creditors. Secured creditors can force a company into receivership, where the owner loses control of operations and is replaced by a receiver. The business or assets are sold to satisfy creditors. Receivership does not offer any particular protection from other creditors' actions. A new reorganisation scheme for companies, that may be viable as a going concern, creates temporary protection from creditor actions, while an examiner devises a restructuring plan. **2. Personal insolvency** **a. Foreclosure/repossession** Debtors can petition for a temporary stay from foreclosure of a personal residence or other credit collection action. **b. Provisions on liquidation** In judicial bankruptcy, all of the debtor's assets are transferred by the court order to an official assignee or an appointed private trustee. The repayment plan should in principle be designed so as to allow the debtor to retain the primary residence, and other assets to the extent possible, but must guarantee creditors at least to recover their expected liquidation value.	**1. Individual entrepreneurs** The same provisions as for consumers apply to personal entrepreneurs. **2. Consumers** **a. Possibility of discharge** Debtors with honest and cooperative behaviour can benefit from an automatic discharge. **b. Repayment and discharge** Debtors are automatically discharged from bankruptcy after 3 years. Debtors may be required to make payments from their income, where sufficient, during the discharge period. Due to the prevalence of loans with personal guarantors, measures were introduced to limit guarantors' financial exposure. Their liability is limited to the shortfall of the value of the charged property below the secured liability. No proceedings can be commenced to enforce a guarantee within 2 years after the date of implementation of a personal repayment plan by the primary debtor.

Country	Balance between formal and informal procedures	Handling of assets: seizure, reorganisation and liquidation	Handling of future income: repayment, debtor conduct and debt discharge
France	**1. Scope of formal and informal procedures** Several informal procedures exist to rescue companies at an early stage of distress. These are initiated by the debtor. Informal procedures enable debt write-downs for approving creditors (no limit) and debt rescheduling (up to 10 years for dissenting creditors, unless initial debt duration was above 10 years). **2. Voting and process in corporate insolvency** Plans voted in both formal and informal procedures (both in preventive restructuring and in insolvency) can cover all types of creditors, including optionally public authorities. Labour creditors have a super senior ranking. The preventive procedure can include a stay on all creditors or, at least, on dissenting creditors. Rescue procedures, whether formal or informal, are subject to similar voting rules. Formal procedures, rescue or liquidation, can be initiated by the debtor, the Court or by any creditor (irrespective of the amount of the claim). **3. Special provisions for individuals** A specific procedure for over-indebted individuals is available, upon their request, implemented by the over-indebtedness commission of the central bank. It may be concluded by a repayment plan or by a personal insolvency decided by the court. These options are not available to entrepreneurs.	**1. Corporate insolvency** Survival of viable firms can be achieved in informal or formal preventive debt restructuring. The formal insolvency procedure sets the order of objectives as follows: continuation of the company, the preservation of employment and the recovery for creditors. Liquidation proceedings can sell the business as a going concern, per branch of activity, or piecewise asset by asset. **2. Personal insolvency** **a. Foreclosure/repossession** Foreclosure of secured debt is widely used. In the specific case of entrepreneurs, the main residence cannot be seized if the debt is solely of professional nature (excluding cases of wrong-doing). **b. Provisions on liquidation** Within the over-indebtedness procedure, debtors are protected from seizure of assets for at least 2 years. If the financial situation of the debtor doesn't enable a repayment plan, available assets may be liquidated by the Court. Exempted assets are those related to employment and basic living needs (the dwelling is not exempted). Entrepreneurs are allowed to differentiate personal assets, which cannot be liquidated, from professional assets.	**1. Individual entrepreneurs** **a. Possibility of discharge** The insolvency of individual entrepreneurs is broadly similar to companies, with exceptions linked to protection of personal assets of entrepreneurs. **b. Repayment and discharge** For insolvent entrepreneurs with low assets, a specific procedure allows a write-off of existing debt without pledging future income and not requiring liquidation. **2. Consumers** **a. Possibility of discharge** Debtors can be fully discharged from their debts, excluding some debts such as fines, family-related obligations, and debts with guarantees. **b. Repayment and discharge** The over-indebtedness commission attempts to achieve an agreement with creditors on a repayment plan running up to 8 years. The plan has to take into account debtors' available income and living costs. If no agreement is reached, the commission may impose a repayment plan and may propose a partial debt write-off (to be approved by Court). When no repayment is possible, debt remaining after the sale of non-exempt assets is discharged. In the absence of valuable assets, debt can be discharged in a procedure without liquidation.

Country	Balance between formal and informal procedures	Handling of assets: seizure, reorganisation and liquidation	Handling of future income: repayment, debtor conduct and debt discharge
Germany	**1. Scope of formal and informal procedures** An attempt at a pure out-of-court negotiation between debtor and the creditors is in general required before applying for formal resolutions of consumer insolvency. For companies, the formal reorganisation procedure, requested by the debtor, can be preceded by a period of temporary protection from creditors, whose purpose is to facilitate the preparation of the reorganisation plan and to discuss it informally with creditors. This may also allow for pre-packaged deals. The reorganisation procedure enables debt and asset restructuring, and can also use advanced tools like share transfers and debt-to-equity swaps. Formal insolvency proceedings can be initiated by the debtor or a creditor with an open claim. **2. Voting and process in corporate insolvency** Double majority (in value and in number of creditors) in each class is required for accepting a restructuring plan in a reorganisation proceeding. **3. Special provisions for individuals** Personal insolvency is covered in the general insolvency law, but it treated differently where appropriate.	**1. Corporate insolvency** Survival of viable firms can be achieved in the formal reorganisation insolvency proceedings. The debtor usually loses control of assets, but with possible exceptions when he personally continues to manage the company. There is high flexibility in the use of advanced restructuring tools, while special provisions for providers of new funding only apply to equity. A sale as going concern is enabled in insolvency liquidation. **2. Personal insolvency** **a. Foreclosure/repossession** German residential mortgage loans have full recourse to the borrower in the event of a deficiency after foreclosure. **b. Provisions on liquidation** All property, including the primary residence, may be seized as a part of a personal insolvency proceeding.	**1. Individual entrepreneurs** Individual entrepreneurs can use the provisions applicable to consumers under certain conditions only (limited number of creditors, no labour relationships). **2. Consumers** **a. Possibility of discharge** Full discharge can be granted for most debt, including public authority claims but excluding items such as fines, illegal activity liabilities and family-related dues. **b. Repayment and discharge** In a formal procedure, the debtor must fulfil several conditions of good conduct over six years (which may be reduced to three years if a certain level of repayment has been reached by then). During this period, all the debtor's excess income above an exempt level is transferred to the creditors via a trustee.

Country	Balance between formal and informal procedures	Handling of assets: seizure, reorganisation and liquidation	Handling of future income: repayment, debtor conduct and debt discharge
Greece	**1. Scope of formal and informal procedures** The reorganisation procedure may involve write-downs and debt restructuring. It can also use advanced tools such as debt-to-equity swaps, and other equity-type settlements with creditors. The procedure applies to corporate debtors and individual entrepreneurs. Two extraordinary procedures (settlement and administration) are currently in place. **2. Voting and process in corporate insolvency** A restructuring plan has to be approved by 60% of all claims, with at least 40% of which must be secured. Extraordinary procedures currently in place provide for less stringent voting requirements. **3. Special provisions for individuals** Individuals file for insolvency under a separate law, leading to a three stage process: 1) optional informal settlement negotiation (or discretionary mediation); 2) In-court negotiation and settlement; and 3) Liquidation.	**1. Corporate insolvency** The submission of an informal settlement involves a temporary stay on all enforcement actions of creditors with regard to creditors' claims that arose prior to the submission of the pre-packaged plan. A special liquidation as a going concern procedure foresees a public auction with transfer to the highest bidder. **2. Personal insolvency** **a. Foreclosure/repossession** Debtors having applied for a settlement may ask the court for protection of the primary residence with partial State contribution to the monthly payment for up to 3 years. A set of criteria are required on family income, on the value of the main residence, and on the inability to pay. Cooperating debtors who fulfil a set of less demanding criteria may apply for a protection of the primary residence only. The settlement scheme must not worsen the position of creditors compared to the case of enforcement. The above two temporary schemes expire end 2018. Approx. 60% of primary residences are eligible for protection under the schemes **b. Provisions on liquidation** Individuals may file for reorganization with their creditors. The court can force plan acceptance if a majority or creditors support it. All debtor property is included in liquidation. The debtor may request exemption of the primary residence up to a specified value (as per above).	**1. Individual entrepreneurs** Sole proprietors may use the same provisions as corporates. There is a specific quick liquidation process which applies for small enterprises. For debtors with insufficient assets and income, the same provisions apply as for consumers. **2. Consumers** **a. Possibility of discharge** Individual debtors can be discharged from their liabilities if a repayment plan was fulfilled, similar to other types of debtors. **b. Repayment and discharge** For debtors with inadequate property and income, the court sets up a repayment plan of 3 to 5 years. In exceptional cases (e.g. permanent unemployment or severe health problems), very low or zero payments may be set. The amount of settlement may be modified in the case of subsequent changes in the debtor's property or income status. If all payments are not made, debt is not discharged and creditors are restored to their status before filing.

Country	Balance between formal and informal procedures	Handling of assets: seizure, reorganisation and liquidation	Handling of future income: repayment, debtor conduct and debt discharge
Ireland	**1. Scope of formal and informal procedures** A formal reorganisation procedure as well as less formal scheme of arrangement enable corporate debt and asset restructuring. The formal personal insolvency system comprising of bankruptcy liquidation and personal insolvency arrangements (repayment) is available to natural persons for all types of debt. **2. Voting and process in corporate insolvency** Reorganisation proceedings can be requested by either the debtor or the creditor. Expert certification is required by the court to initiate them. Voting requirement in formal reorganisation is relatively less stringent (majority claims' agreement of at least one affected class suffices) than in the less formal arrangement scheme (75% of all claims). **3. Special provisions for individuals** A three-level debt restructuring system exists for natural persons (consumers or entrepreneurs), done by a practitioner with court approval. It entails three types of arrangements, covering these situations: i. debtors with low liabilities and without income and assets, ii. debtors with unsecured debt having income, and iii. debtors with secured and unsecured debt having an income. The latter two require approval by 65% of creditor claims' and a majority of both secured and unsecured creditors where applicable. Debtors may ask the court to review and impose a personal insolvency proposal under iii. if initially refused by the creditors. Unsuccessful attempts at restructuring end in bankruptcy liquidation.	**1. Corporate insolvency** Secured or unsecured creditors can request the court to order liquidation. Secured creditors can initiate an out-of-court receivership against a corporate debtor. The owner is replaced by a receiver in the control of operations Survival of the company can be achieved in a formal reorganisation coordinated by a practitioner (examiner) while the debtor remains in possession, or in a partly informal procedure requiring court approval and not granting an automatic stay. **2. Personal insolvency** **a. Foreclosure/repossession** A mortgage creditor may apply to a court to order that the debtor's property be transferred to the creditor. Repossession has traditionally been little used in practice against households, but is now increasing. **b. Provisions on liquidation** Debtors may apply for one of the debt arrangement schemes without losing assets. In judicial bankruptcy, all of the debtor's assets can be transferred by the court order.	**1. Individual entrepreneurs** Same provisions as for consumers. **2. Consumers** **a. Possibility of discharge** Debtors can be discharged in either the judicial bankruptcy or through one of the arrangement schemes. **b. Repayment and discharge** The automatic discharge period following judicial bankruptcy is 3 years. The same length is applied to the surveillance period for the arrangement scheme for debtors with limited liabilities and without assets or income. In the personal insolvency arrangements, unsecured debt is discharged at the conclusion of the scheme. Secured debt is discharged as agreed with creditors. Restructured debt payments must reflect statutory guidelines on reasonable living expenses. Negotiated repayment plans can last for 5-6 years (unsecured debt) and 6-7 years (secured and unsecured debt). A 20-year clawback right enables the creditor to share in any potential capital gains if a secured property is sold at a profit – the clawback is limited to the amount of any capital forgiveness.

Country	Balance between formal and informal procedures	Handling of assets: seizure, reorganisation and liquidation	Handling of future income: repayment, debtor conduct and debt discharge
Italy	**1. Scope of formal and informal procedures** Informal and formal procedures are applicable to corporate debtors and large entrepreneurs. Only a formal procedure is available for small companies, entrepreneurs and consumers. A large number of formal procedures for corporations exist, covering both preventive restructuring and insolvency, with special administration regimes for large companies and those in specific public services. Debt reorganization is available in formal and informal insolvency procedures. Write-downs generally occur only in a formal context. Advanced tools for restructuring (e.g. debt-to-equity swaps) may be subject to legal or procedural barriers in informal settlements. **2. Voting and process in corporate insolvency** Informal restructuring for insolvent debtors may extend to dissenting financial creditors only if a majority of liabilities are financial, if creditors that represent 75% of financial debt agree, and if dissenting creditors have the same legal position and economic interests. Formal preventive restructuring of unsecured debt requires the agreement of a majority in value of creditors, as well as of a majority of classes. Creditors may propose an alternative preventive restructuring plan. **3. Special provisions for individuals** A formal insolvency procedure enables individuals to file a restructuring plan with the court. The court can confirm the plan if there is support by holders of 60% of claims.	**1. Corporate insolvency** Survival of viable firms is sought for in a multitude of regimes: formal preventive restructuring (where the debtor remains in control), formal pre-packaged reorganisation plan, or an out-of-court rescue plan involving an expert certification. Special administration regimes for large companies also enable reorganisation, whereby the owner ultimately loses control of the assets. Bankruptcy liquidation, under the control of a receiver, is the common procedure for dealing with financial distress. The procedure may last several years, during which continuation of operations is rare. Competitive sales have been recently added to the liquidation toolbox. **2. Personal insolvency** **a. Foreclosure/repossession** Foreclosure mechanisms for enforcing secured debt are done in a special proceeding leading to public auction, but they tend to be slow. **b. Provisions on liquidation** Liquidation of assets and discharge occur if the restructuring plan fails, or if a repayment plan had already been granted in the 5 years preceding the insolvency.	**1. Individual entrepreneurs** Same provisions as for consumers. **2. Consumers** **a. Possibility of discharge** Debt discharge is possible at the end of the repayment plan. **b. Repayment and discharge** The restructuring plan must fulfil the criteria of viability and of a higher recovery rate than a liquidation of assets. Good faith and reasonable effort to generate income are requirements during the repayment plan.

Country	Balance between formal and informal procedures	Handling of assets: seizure, reorganisation and liquidation	Handling of future income: repayment, debtor conduct and debt discharge
Latvia	**1. Scope of formal and informal procedures** Formal and informal procedures enable debt rescheduling and write-downs. They are available for both companies and individuals. Formal restructuring may use advanced tools, such as debt for equity swaps. The pure out-of-court procedure, requiring creditor consensus, is facilitated by recommended guidelines. Liquidation can be initiated by creditors, the debtor or the administrator, involving a public auction or a private sale. **2. Voting and process in corporate insolvency** Formal restructuring may cover secured and unsecured creditors. It requires a two-thirds approval by secured creditors and simple majority of unsecured creditors. A pre-packaged plan can be approved by the courts if the same required majorities are found. Otherwise, an in-court plan development is foreseen. **3. Special provisions for individuals** Individuals are entitled for a specific insolvency procedure which allows for a fresh start after a repayment period.	**1. Corporate insolvency** The formal restructuring procedure aims to ensure continuation of viable businesses, granting a 2-year stay on creditor enforcement. The failure of the restructuring plan usually triggers bankruptcy liquidation. **2. Personal insolvency** **a. Foreclosure/repossession** For mortgage debt on dwellings, debtors are automatically discharged of any remaining balance of debt after foreclosure (principle applicable on new mortgages from 2015 on). Insolvency proceeding provides a temporary stay from primary residence foreclosure. **b. Provisions on liquidation** Liquidation of non-exempt assets is the first part of a personal insolvency proceeding, followed by a repayment plan and discharge.	**1. Individual entrepreneurs** Same provisions as for consumers. **2. Consumers** **a. Possibility of discharge** Consumers obtain full discharge after completion of a repayment plan. **b. Repayment and discharge** Repayment of at least one third of the debtor's income (at least one third of the minimum wage) over a period of one to three years (increasing with the amount of debt) leads to full discharge.

Country	Balance between formal and informal procedures	Handling of assets: seizure, reorganisation and liquidation	Handling of future income: repayment, debtor conduct and debt discharge
Netherlands	**1. Scope of formal and informal procedures** A debtor-requested preventive proceeding leads to temporary stay and enables the debtor to negotiate informally with the creditors. It cannot affect the rights of secured and preferred creditors. A formal bankruptcy can be requested by either the debtor or a creditor, and generally aims at liquidation. An attempt at an out-of-court negotiation between the debtor and the creditors is required before applying for formal resolution of individuals' distress. **2. Voting and process in corporate insolvency** Both the preventive proceeding and the formal bankruptcy may lead to a resolution agreement, subject to the same voting requirement. Secured creditors are not affected by either proceeding. **3. Special provisions for individuals** Individuals may apply for a formal debt restructuring, once informal resolution has failed. The success rate of informal resolutions was declining for several years after the introduction of a formal resolution scheme in the 1990s. The repayment plan conditions are set identically for formal and informal procedures.	**1. Corporate insolvency** A temporary stay can be granted to the creditor to negotiate a rescue of the company. The bankruptcy proceeding usually ends up in liquidation of assets. Secured creditors are generally unaffected by any proceedings, and may enforce their security. **2. Personal insolvency** **a. Foreclosure/repossession** Similar to the above, secured creditors are generally not affected by insolvency proceedings. Assets serving as debt collateral, such as a residence, are after their foreclosure not included in the bankruptcy estate. The remaining balance after foreclosure can be pursued as an unsecured debt. A national mortgage guarantee scheme may cover the remaining portion of debt after sale of the pledged asset, under certain conditions. **b. Provisions on liquidation** All non-exempt assets can be seized as a part of a formal insolvency proceeding.	**1. Individual entrepreneurs** Same provisions as for consumers apply. **2. Consumers** **a. Possibility of discharge** Debtors in good faith can be fully discharged from their debts. **b. Repayment and discharge** Discharge is conditional on fulfilling a payment plan during a period of three years (possibly, albeit rarely, going up to 5 years), which is implemented under a trustee. All income in excess of an exempt level (defined as a percentage of an official welfare minimum, but adjusted for family situation, work status, and some living expenses) is handed over to the creditors.

Country	Balance between formal and informal procedures	Handling of assets: seizure, reorganisation and liquidation	Handling of future income: repayment, debtor conduct and debt discharge
Romania	**1. Scope of formal and informal procedures** Both formal and informal procedures enable debt write-downs (no limit) and debt reorganization (2-5 years). Insolvency proceedings are applicable to corporates and entrepreneurs. Consumers fall under separate legislation. Preventive informal and partially formal procedures are available, with limited role of the court (verifying legality of the process), assisted by a court-appointed practitioner. **2. Voting and process in corporate insolvency** Class voting is defined by priority and by type of liability and covers all types of creditors. **3. Special provisions for individuals** An abridged formal bankruptcy procedure is available for entrepreneurs and family companies. Consumers go through a cascade of three successive informal procedures: 1. repayment plan; 2. asset liquidation followed by discharge conditional on partial repayment; and 3. simplified insolvency.	**1. Corporate insolvency** Survival of viable companies can be achieved in preventive procedures (possibility for the debtor to remain in possession) or in formal reorganisation in insolvency. If reorganisation is not successful, bankruptcy and liquidation procedures are triggered. **2. Personal insolvency** **a. Foreclosure/repossession** Foreclosure mechanisms are in general slow. **b. Provisions on liquidation** Insolvency through liquidation only triggered as a second option, after the repayment plan failed. Asset liquidation may exclude primary residence. Conditional debt discharge is available after liquidation.	**1. Individual entrepreneurs** **a. Possibility of discharge** Discharge obtained after liquidation, unless fraudulent behaviour is discovered, which leads to liability with personal goods and future income. **b. Repayment and discharge** **2. Consumers** **a. Possibility of discharge** Possibility of discharge as part of a repayment plan. **b. Repayment and discharge** Debt discharge is initially linked to a repayment plan of 5 to 6 years. If the plan fails, discharge after 3 years is conditional on 50% of repayment, or 5 years if 40% repaid. Discharge in simplified insolvency can be achieved if the debtor has no assets or incomes, or is in a vulnerable condition (retirement age or limited working capacity).

Country	Balance between formal and informal procedures	Handling of assets: seizure, reorganisation and liquidation	Handling of future income: repayment, debtor conduct and debt discharge
Spain	**1. Scope of formal and informal procedures** Both formal insolvency and informal preventive procedures enable debt write-downs (no limit) and debt rescheduling (up to 10 years). They are applicable to corporate, entrepreneur and consumer insolvency. **2. Voting and process in corporate insolvency** Plans voted in formal procedures can cover all types of creditors. Informal preventive procedures only optionally include secured creditors, and exclude public creditors. Labour creditors are also entitled to preferential treatment of their successor liabilities. . Voting majorities are virtually the same in informal procedures as in formal ones. **3. Special provisions for individuals** An accelerated formal procedure is available for individual entrepreneurs and consumers in need of debt discharge (only after an informal agreement has not been reached).	**1. Corporate insolvency** Survival of viable firms can be achieved in informal or formal debt restructuring. In some circumstances the debtor can remain in possession of assets during the formal procedure. The insolvency law facilitates liquidation as a going concern, with a particular focus on SMEs (e.g., via portability of licences and contracts). **2. Personal insolvency** **a. Foreclosure/repossession** Foreclosure of secured debt is widely used. **b. Provisions on liquidation** Liquidation of assets is a pre-requisite for consumers to apply for debt discharge.	**1. Individual entrepreneurs** **a. Possibility of discharge** Debt discharge in formal insolvency is available for insolvent entrepreneurs and consumers, only if informal debt reorganisation deal was not found. Good faith and non-refusal of job offers in past 4 years are among the criteria for discharge. Insolvency and discharge applicable to unsecured debt and residual secured debt after repossession, excluding public liabilities. **b. Repayment and discharge** Debt (excl. public liabilities) is subject to a repayment plan of up to 5 years. Discharge is immediate but provisional, and can be revoked during the repayment plan due to windfall gains or bad faith or during 5 years if unreported assets or income are found. **2. Consumers** Same rules as for entrepreneurs, subject to an additional requirement of previous asset liquidation.

Country	Balance between formal and informal procedures	Handling of assets: seizure, reorganisation and liquidation	Handling of future income: repayment, debtor conduct and debt discharge
UK	**1. Scope of formal and informal procedures** An attempt at an arrangement with creditors usually precedes the filing for insolvency. It can be either fully informal, or supervised by an administrator (appointed by the court or via out-of-court procedures). Debt reorganisation and write-downs are part of the resolution toolbox. **2. Voting and process in corporate insolvency** The main resolution options are a voluntary arrangement, which only applies to unsecured creditors, and a scheme of arrangement, covering different classes of creditors including secured (if they vote in favour). Either can be used preventively, or in combination with reorganisation proceedings (administration). Voting requirements in resolution schemes are the same if they are done standalone or in combination with an administration. A stay on creditors is only granted in the latter case. All procedures are overseen by a practitioner. **3. Special provisions for individuals** A range of debt resolution schemes are available to individuals, notably an in-court bankruptcy proceeding and a voluntary agreement with limited court involvement.	**1. Corporate insolvency** Secured creditors have the option of an out-of-court receivership against a corporate debtor, but the mechanism is rarely used. The continuation of companies and better creditor recovery are the main objectives of the reorganisation proceedings (administration). These provide a stay on creditor actions, but leads to a transfer of management control to the administrator. Sale of assets or liquidation is used if reorganisation is not beneficial to the recovery of value by the creditors. **2. Personal insolvency** **a. Foreclosure/repossession** Mortgage loans tend to be on full recourse basis, with relatively short time from default to asset repossession (less than a year). **b. Provisions on liquidation** In a bankruptcy all debtor's assets are transferred to a trustee for liquidation. Exempted assets are limited to those related to employment and basic living needs (the dwelling is not exempted). In a voluntary agreement, some assets may also be selectively liquidated as part of the agreement.	**1. Individual entrepreneurs** Same provisions as for consumers. **2. Consumers** **a. Possibility of discharge** Debtors can be fully discharged from their debts, with some exceptions such as fines or student loans. **b. Repayment and discharge** In bankruptcy, debtors are automatically discharged from their debts after 12 months. The repayment plan can foresee the transfer of surplus income (above the exempt level) for up to three years, possibly extending beyond discharge. Voluntary agreements may involve payment plans for up to 5 years.

SOURCES USED IN TABLE A

Croatia – national legislation.

France – national legislation, Practical law Global Guide 2015/16, OSEO (2008), Une analyse comparative des procédures de faillite : France, Allemagne, Royaume-Uni, Regards sur les PME N°16, Documentation Française. Plantin G., D. Thesmar and J. Tirole (2013), "Les enjeux économiques du droit des faillites", Conseil d'analyse économique, Banque de France (2014), "Le surendettement".

Germany - European Credit Research Institute/Centre for European Policy Studies, International Comparison of Mortgage Product Offerings Research Institute for Housing America, Practical law Global Guide 2015, IMF Art IV 2015 SIP for Spain.

Greece - overview www.greeklawdigest.gr, Practical law Global Guide 2015; CY - Practical law Global Guide 2015/16, IMF, http://oxfordglobalservices.com/new-cyprus-insolvency-laws.

Ireland - IMF Multi - Country Report. Housing recoveries: Cluster report on DK, IE, UK, NL, Practical law multijurisdictional guide 2014/15.

Italy - IMF Article IV 2015; Orrick, Herrington, Sutcliffe (Europe) LLP, Newsletter; Italian Restructuring & Insolvency Department; Practical law Global Guide 2014/15;

Latvia - IMF art IV 2015 and 2013 (selected issues), Erbenova et al. 2011, Globalinsolvency.com http://globalinsolvency.com/ articles/country-reports-winter-201415-updates-from-latvia-spain-franc, Legal knowledge portal (http://legalknowledgeportal.com/2014/11/14/amendments-to-the- insolvency-law-of-latvia/).

Netherlands - Lending and taking security in The Netherlands: overview - Thomson Reuters International Comparison of Mortgage Product Offerings Research Institute for Housing America http://www.blenheim.nl, Kilborn (2006).

Romania – national legislation; individual interviews with practitioners; Study on a new approach to business failure and insolvency.

Spain - IMF Art IV 2015 SIP, Practical law Global Guide 2015/16.

UK - Practical law Global Guide 2015/16, European Credit Research Institute, International Comparison of Mortgage Product Offerings Research Institute for Housing America.