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Executive Summary

The COVID-19 pandemic significantly impacted the enterprise sector. Unprecedented policy measures helped avoid a wave of insolvencies, at least temporarily. But risks remain of corporate debt overhang and zombification of firms if untargeted support is prolonged and of a wave of insolvencies if support is removed abruptly.

This departmental paper presents principles that could guide the design of more targeted policy support and facilitate the restructuring of firms adversely impacted by the COVID-19 pandemic. To this end, the paper takes stock of vulnerabilities and risks in the enterprise sector and assesses countries' preparedness to handle a large-scale restructuring of businesses. Crisis preparedness of insolvency systems is measured according to a newly designed indicator that includes five dimensions of the insolvency and restructuring regime (out-of-court restructuring, hybrid restructuring, reorganization, liquidation, and the institutional framework). Vulnerabilities tend to be more pronounced in jurisdictions with shortcomings in crisis preparedness, and those countries need to step up efforts to improve their insolvency systems.

The paper discusses options for the development of policy strategies, including targeted support measures to viable firms and legal reforms to facilitate debt restructuring, liquidation, and reorganization of firms. Some broad considerations for the elements of such policy strategies include:

- First, policy support schemes require clear objectives as to what market failures are meant to be addressed. Complementary policies, beyond the scope of this paper, can support other objectives and further ensure the transition to a sustainable corporate sector in the post-COVID-19 economy.

- Second, policy support schemes should include strong governance and transparency safeguards to mitigate risks and put in place clear ex ante exit plans. Burden sharing and debt-restructuring schemes that make use of the informational advantage and skills of private creditors can be particularly advantageous. Public creditors should actively participate in debt restructuring.

- Third, countries wherein fiscal space is depleted and insolvency systems are ineffective should rely more on out-of-court and hybrid restructuring approaches, while embarking on deeper medium-term reforms of legal and institutional frameworks. Out-of-court restructuring is based on the negotiation between debtors and major financial creditors, with the possible support of the state and avoids interaction with the courts. Hybrid restructuring refers to a similar negotiation supported by limited judicial intervention. Countries with remaining fiscal space have more options and can provide continued support to firms while implementing reforms, where needed, but should be mindful of the risks of zombification and moral hazard.

- Fourth, countries with insufficient policy tools or ineffective legal and institutional frameworks to restructure, reorganize, and liquidate firms should urgently address these shortcomings. Some reforms may take time to bear fruit and should be tackled immediately to strengthen preparedness over the medium term alongside with improvements in or development of out-of-court and hybrid restructuring options that take less time to implement. In contrast, improvements in out-of-court and hybrid restructuring can be made relatively quickly and support the short-term performance of the insolvency framework.

- Fifth, all countries can improve their crisis preparedness, but priorities differ across them. Advanced economies tend to have well developed insolvency systems and strong institutional frameworks, but there are still areas where improvements are warranted, such as simplifying liquidation procedures; improving technical aspects of their reorganization proceedings, including for small firms; making better use of

out-of-court restructuring; continue using modern technology in insolvency proceedings; and creating a legal environment more conducive to restructuring. In emerging market economies, there have been improvements in insolvency legislation in recent years, but there is space to strengthen the court system and the regulation of insolvency administrators. Furthermore, most emerging market economies could also introduce or improve hybrid restructuring techniques. Low-income countries need improvements in out-of-court and hybrid restructuring to speed up crisis preparedness, while broad legal and institutional reforms are introduced.

- Finally, lenders' balance sheets need to remain sound. To this end, contingency planning may include reactivating tools used in the past, including during the global financial crisis. Any use of asset management companies should consider that their success hinges on the overall design and governance framework.

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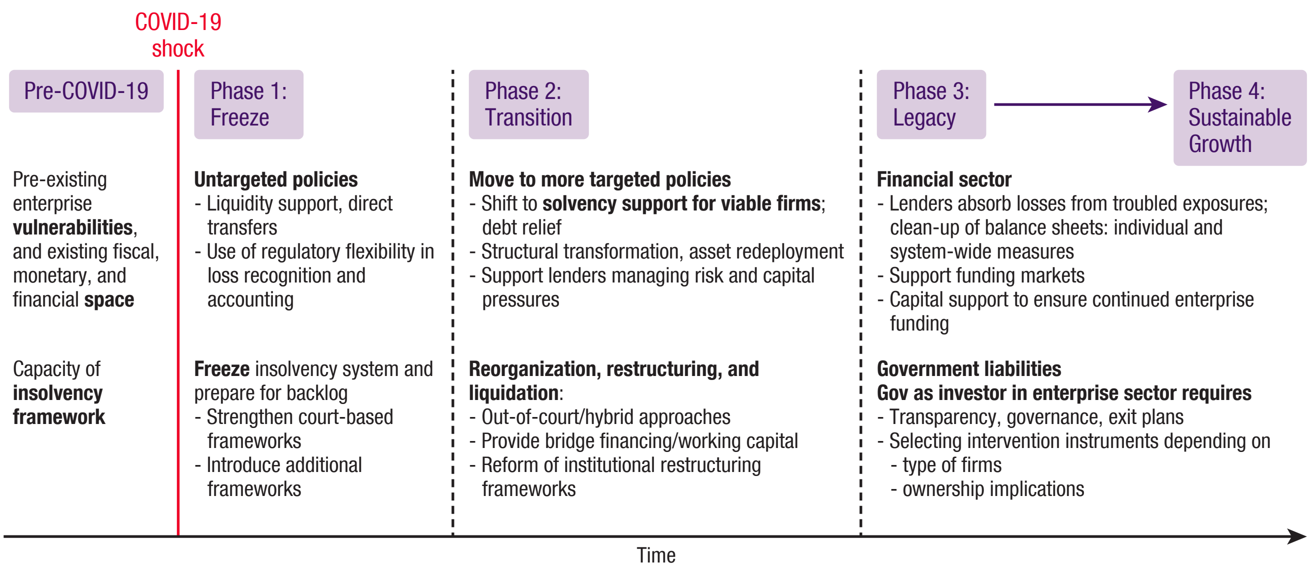
Glossary

ADR	alternative dispute resolution
AE	advanced economy
AMC	asset management company
AQR	asset quality review
BIS	Bank for International Settlements
CRCC	Corporate Restructuring Coordination Committee
CRI	Credit Research Initiative (National University of Singapore)
EM	emerging markets
FSAP	Financial Sector Assessment Program
FSB	Financial Stability Board
GDP	gross domestic product
GFC	global financial crisis
IG	investment grade
IMF	International Monetary Fund
LIC	low-income country
NPL	nonperforming loan
PD	probability of default
ROSC	Report on the Observance of Standards and Codes
SME	small- and medium-sized enterprise

1. Introduction

The COVID-19 pandemic led governments to take unprecedented policy measures to stop the spread of the virus (IMF 2020a, 2020b). Lockdowns, administrative business shutdowns, and mobility restrictions brought many economies to a sudden stop. Income was lost across various industries, but financial commitments remained, putting significant liquidity pressures on the enterprise sector at a time of already heightened concerns about corporate leverage in many jurisdictions.

Figure 1. Phases of the COVID-19 Crisis



Source: Authors.

Confronted with the risk of major economic depression, governments adopted a range of emergency economic measures, including to support firms' liquidity.[1] In the initial phase of the crisis (Figure 1), countries deployed containment measures, including freezes of insolvency proceedings and unprecedented fiscal, financial, and monetary support to keep firms afloat. The immediate policy response favored speed over efficiency, which involved largely untargeted measures (that is, without distinguishing viable from nonviable businesses). These policy measures helped avoid a wave of bankruptcies, at least temporarily.

Solvency risk among firms, however, has not fully dissipated, and policy intervention will need to manage it. Corporate debt has increased further, in part as short-term liquidity needs were covered with additional borrowing. Earnings expectations for firms also remain significantly uncertain, owing to the potential scarring effects of the crisis and persistent risks from the pandemic. A wave of corporate insolvencies could have serious implications for growth and financial stability. Against this background, decisive strategies are needed, with targeted policies to mitigate relevant market failures (Box 1) and to ensure preparedness of insolvency systems and institutional frameworks. The latter would facilitate the restructuring and reorganization of the enterprise sector, which may be complemented with additional but targeted support to viable firms where needed.[2]

[1] In this note, the term liquidity refers to a situation where a firm can fulfill its immediate payment obligations on an ongoing basis, typically drawing from cash reserves and additional financing.

[2] Viability in the context of distressed firms refers to a firm whose net present value of expected future earnings exceeds the liquidation value of existing assets. It differs from solvency as an insolvent firm may still be viable.

Box 1. Key Market Failures

The depth and broad-based nature of the COVID-19 shock and the unusually large uncertainties around the duration and sectoral impact exacerbate market failures and can induce significant negative macroeconomic and social externalities (Georgieva and Gopinath 2020). This is especially true for firms with preexisting vulnerabilities and those operating in contact-intensive industries, including small- and medium-sized enterprises (SMEs) (Diez and others 2021, Ebeke and others 2021), which often have limited buffers and practically no access to capital markets (IMF 2020a). Key market failures include:

- Asymmetric information. Creditors and borrowers have an imperfect and uneven understanding of the state of the economy, the prospects of individual businesses, implications from overburdened judicial systems, and future public policy decisions. High economic uncertainty and increased opacity in assessing credit risk and future viability worsen information problems, leading to under-provision of financing (through equity or debt) and lower investment in absence of government intervention—especially when undermined by difficulties in determining future viability. This could lead also to inadequate bridge financing during private debt restructurings, which could cause excessive liquidations of viable firms.
- Network externalities. Network effects in a fragile and depressed economy tend to be strong as the bankruptcy of a firm may have major effects on its suppliers and their consumers. By considering only the private value of the firm, private creditors would close too many firms that are viable but have temporarily weak balance sheets. A wave of insolvencies results also in reduced opportunities for the reorganization of viable companies and an increase in liquidation cases (for example, Iverson 2018, Skeel 2020a, 2020b). This, in turn, prolongs liquidations, fuels the destruction of value, and reduces recovery values for creditors. The bank-sovereign-corporate nexus can amplify the effects of mass insolvencies on economic growth and financial stability (Eriksson von Allmen and others 2020).

This paper seeks to identify a menu of policy options to support and restructure the enterprise sector. To arrive at these options, the paper addresses four questions. First, what are the policy options and trade-offs for support and debt resolution, and how do they vary with fiscal space, strength of insolvency[3] systems, and other country characteristics? Second, how to decide which firms to support? Third, what are the options for firms to restructure their debt, reorganize, and liquidate? How prepared are insolvency regimes around the world, and how can they be strengthened where needed? And fourth, how should policymakers deal with weakened financial sector balance sheets?

Although policy options should focus on ensuring *solvency of viable firms*, they may require also planning for managing the potential implications on the financial sector.[4] In the transition phase, insolvency systems restart addressing cases and, to reduce the case backlog, countries increasingly deploy out-of-court and hybrid approaches to support the formal insolvency system. Just like with any other crisis, the current shock will leave its mark on the financial sector, which might need to be addressed by reactivating bank recapitalization strategies from the past. Ensuring continued enterprise funding is essential to support firms' financing restructurings. In contrast to most other economic crises, solutions will need to consider that the state may already be a creditor of the enterprise sector, leading also to fiscal sustainability implications.

3 Insolvency refers to so-called balance sheet insolvency, which arises when the value of a firm's assets is less than the value of its debts. See also Diez and others 2021.

4 In the current crisis, the determination of firm viability is complicated by important structural changes in the economy, with shifts in consumer preferences as well as changes in supply chains, compounded by other, more long-term, structural changes affecting the global economy.

The paper is structured as follows: Chapter 2 takes stock of corporate vulnerabilities and presents a newly developed indicator of crisis preparedness. It underscores the need to strengthen insolvency systems and the toolkit for out-of-court and hybrid restructuring approaches particularly in countries displaying high corporate vulnerabilities. Chapter 3 argues for moving toward more targeted policies to minimize the risk of zombification of firms, and to use the remaining policy space more efficiently. It lays out the main policy options, including conditional on countries' fiscal space and the capacity of insolvency frameworks. Chapter 4 discusses how to allocate solvency support and which forms it can take. Chapter 5 presents alternatives to full formal insolvency proceedings, including out-of-court and hybrid restructuring. Chapter 6 offers options to strengthen insolvency systems. Chapter 7 touches upon policy options to deal with the consequences on the financial sector, considering the experience from past financial crises. Chapter 8 concludes.

2. Corporate Sector Vulnerabilities and Crisis Preparedness

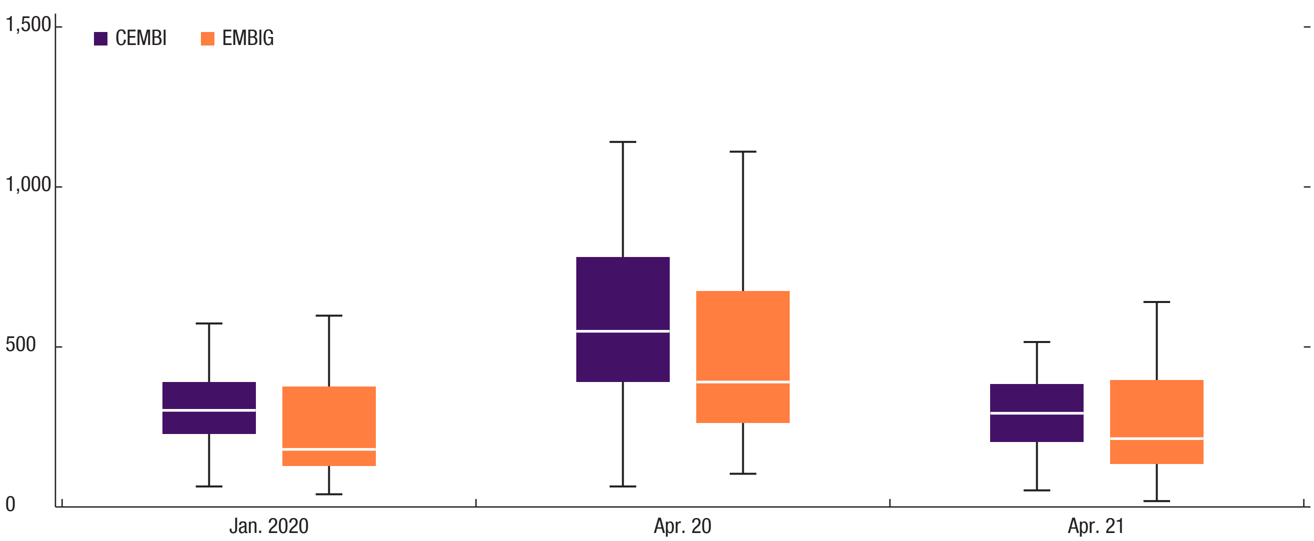
A. Corporate Sector Vulnerabilities

The sharp tightening of global financial conditions and prospects of massive economic contractions required an initial policy response that favored speed over efficiency. A sharp and broad-based correction in asset prices (IMF 2020c, Chapter 1) followed the spread of the COVID-19 virus and governments' attempts to stop it through lockdowns and other measures. In emerging market economies, corporate and sovereign spreads more than doubled, on average. Policymakers across the globe deployed bold fiscal, monetary, financial, and legal measures (see Annex 1 for a summary of policy support measures adopted during the Freeze Phase).

The unprecedented policy response mitigated the immediate impact of the COVID-19 crisis on an already vulnerable corporate sector. The swift and large scale of policy intervention helped ease financial conditions, with corporate and sovereign spreads in the median emerging market economy returning to January 2020 levels by November 2020, and even sooner for advanced economies (Figure 2). Overall, the initial policy support prioritized alleviating liquidity pressures—but this also led to a further build-up of debt.

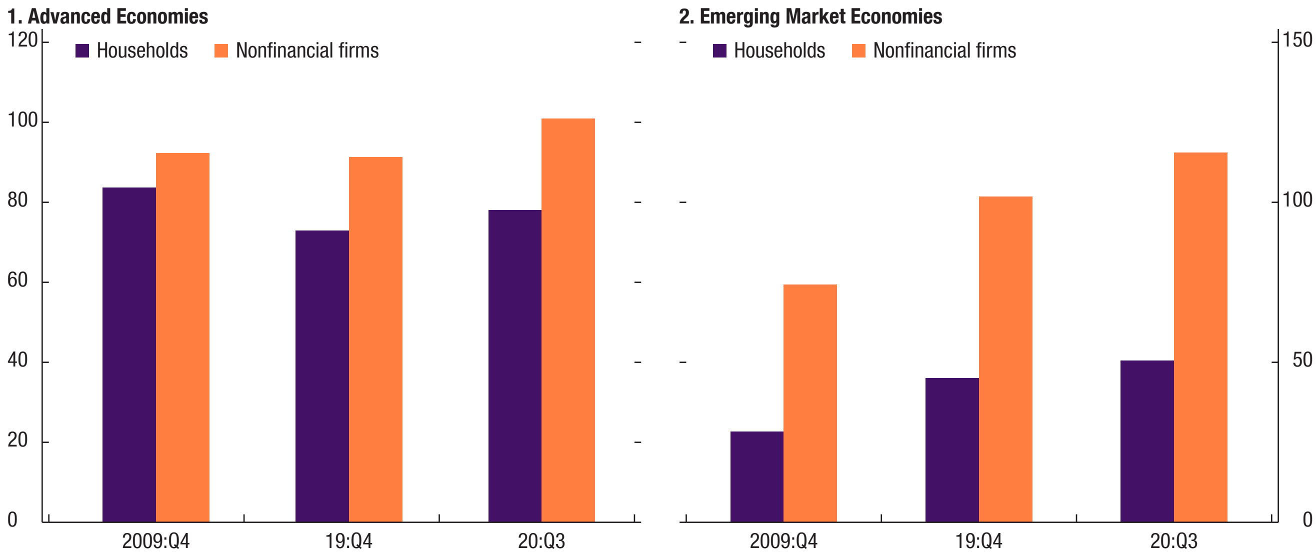
Nonfinancial firms had entered the COVID-19 crisis with already-elevated debt levels. Increases in indebtedness before the current crisis were particularly pronounced in emerging market economies (Figure 3). While credit to households in advanced economies fell already in the run-up to the current crisis, credit continued to increase in emerging market economies (but remaining well below advanced economy levels).

Figure 2. Corporate and Sovereign Spreads
(Basis points)



Sources: Bloomberg; and IMF staff calculations.
Note: Corporate and sovereign spreads are the JP Morgan CEMBI and EMBIG Spreads, respectively. Horizontal white lines on the box mark the median value. Sample consists of 33 emerging market economies. Upper and lower hinge of the box represent the 75th and 25th percentiles, respectively. The JP Morgan CEMBI series is a liquid global emerging market corporate benchmark that includes fixed rate securities. Only those instruments with at least 5 years until maturity are considered for inclusion and, once added, an instrument may remain in the index until 12 months before it matures. The JP Morgan EMBI Global series comprises of USD denominated Brady bonds, Eurobonds, and traded loans issued by sovereign and quasi sovereign entities. Only those instruments with at least 2.5 years until maturity are considered for inclusion and, once added, an instrument may remain in the index until 12 months before it matures. Spreads are over US Treasury securities.

Figure 3. Nonfinancial Firms and Household Debt Build-Up
(Percent of GDP)

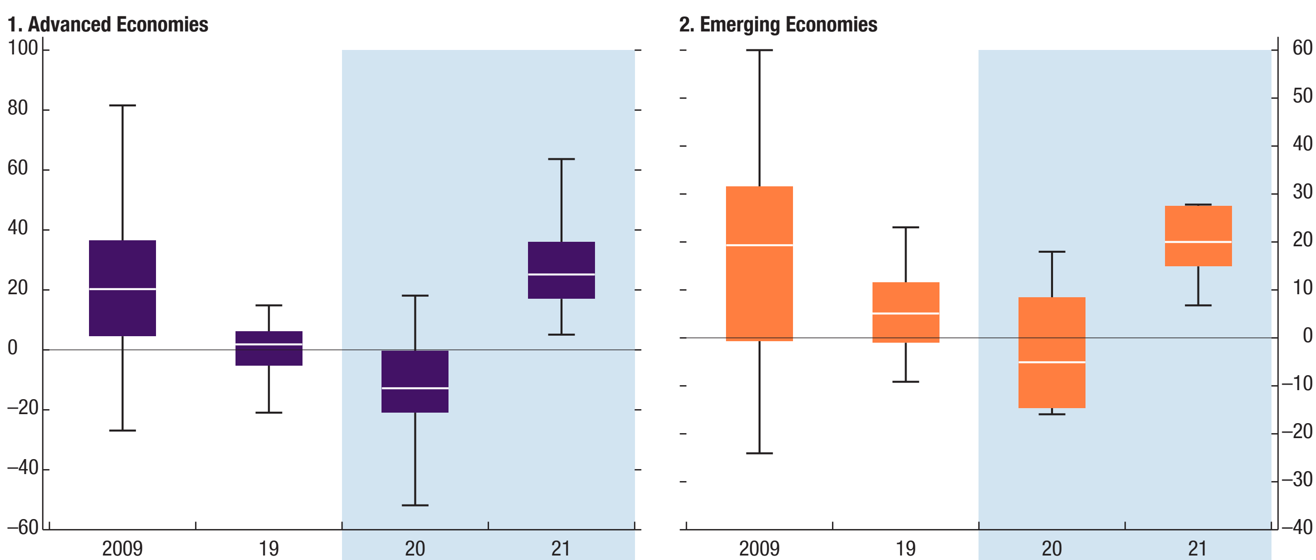


Source: BIS Credit Statistics.

Since the COVID-19 shock hit, more than a third of the rise in the nonfinancial firms' debt-to-GDP ratio can be attributed to an increase in borrowing, while the rest is explained by the decline in GDP (IMF 2021c, Chapter 2).

The policy response thus succeeded in staving off a wave of insolvencies in the near term, but risks have not fully dissipated and may materialize once policy support is removed. Despite the expectation of an increase in loan defaults and bankruptcies (for example, G30 2020, Greenwood, Iverson, and Thesmar 2020, Diez and others 2021, Banerjee and others 2021a, 2021b; Figure 4), in many jurisdictions insolvencies declined in 2020,

Figure 4. Annual Change in Corporate Insolvencies: Distribution Across Income Groups
(Percent)



Source: Euler Hermes.
Note: Sample consists of 31 advanced economies and 12 emerging economies. Horizontal white lines in the middle of the box mark the median value. Upper and lower hinge of the box represent the 75th and 25th percentiles, respectively. The shaded area (for years 2020 and 2021) shows forecasts.

largely owing to policy support programs (IMF 2021a). A large "COVID-19 bankruptcy gap" has emerged (Banerjee, Noss, and Pastor 2021a), reflecting the difference between actual bankruptcies and those that would have been expected based on historical relationships between predictors of bankruptcy rates and economic activity. According to Allianz Research 2021, insolvency cases in selected economies around the world decreased by 12 percent in 2020. However, the backlog of insolvency cases could accumulate further as the removal of policy support reveals the true extent of corporate distress from the transitory loss of income compounded by scarring effects from the crisis. Waves of insolvency cases would cause substantial backlogs at courts, with negative consequences for debtors, creditors, and the economy more broadly.

B. Crisis Preparedness of Countries' Insolvency Systems

Comprehensive standards exist for the regulation of insolvency systems. The international standard for insolvency and creditor rights is a composite standard formed by the World Bank Principles[1] and the UNCITRAL recommendations in the Legislative Guide on Insolvency Law.[2] This international standard is prepared in consultation with the IMF and included in the Financial Stability Board's compendium of standards and is important for the proper functioning of the financial sector. Evaluating compliance with the standard is a complex task, since this standard includes far more elements than other standards considered in Financial Sector Assessment Programs. At the same time, the standard combines high-level principles with prescriptive, detailed technical aspects. Metrics such as the number of areas where the system is compliant or noncompliant may not offer a fair characterization as different elements may vary in importance and affect the functionality of the system. Because of multiple practical obstacles in conducting evaluations, there is no comprehensive assessment of compliance with the standard that would cover a wide enough range of countries that this paper aims to analyze.

An assessment of crisis preparedness can be summarized in an indicator capturing the ability of insolvency systems to handle a large scale of corporate insolvencies. Given the limitations of existing indicators and the lack of adaptation to the specific challenges posed by corporate debt crises, developing a new indicator of crisis preparedness is a key contribution of this paper. Based on the experience with previous crises, a system responds best when a complete set of tools is deployed to address widespread distress situations in firms. For this reason, an indicator can measure the existence and availability of a set of tools that is known to be most useful in a crisis, thereby providing a measure of the crisis-preparedness of the insolvency system. The indicator focuses on the existence and availability of techniques, features, and institutions that are generally relevant in conducting restructuring and insolvency activities and particularly useful in the response to systemic crises. The assessment is based on an independent analysis by the authors of primary and secondary sources, including the relevant national legislation and other regulatory instruments, as well as reports and articles. The indicator, however, does not constitute legal advice or replace the detailed legal analysis required for an in-depth country-specific assessment.[3]

The indicator proposed in this paper provides granular county-specific information about which areas of insolvency systems should be improved. As with every indicator, the approach includes implicit recommendations to strengthen the crisis preparedness of insolvency systems, which are aligned with the legal and policy analysis included in this paper. This approach allows pinning down areas of strengths and weaknesses. The indicator includes five different sub-indicators, which are composed of a varying number of elements (see Annex 3 for a detailed description):

[1] See World Bank 2021.

[2] The UNCITRAL Legislative Guide is comprised of several parts. Parts I and II were adopted in 2004. Part III, on the insolvency of enterprise groups, was adopted in 2010, and Part IV, on directors' liabilities, was adopted in 2014 (2019, 2nd ed.). Additional guidance on the insolvency of micro and small enterprises will be added in the near future.

[3] Certain areas of the insolvency regime are not covered by this indicator: directors' liabilities, avoidance actions, some procedural aspects, and cross-border insolvency or the insolvency of enterprise groups. These issues are relevant for any insolvency system, but their importance is not necessarily higher in crisis situations.

1. *Enhancements to out-of-court restructuring*, including debt restructuring principles; codes of conduct; master restructuring agreements; administrative debt restructuring schemes; an enabling legal framework; support to SME restructuring; and alternative dispute resolution techniques.

2. *Hybrid restructuring* includes pre-packaged reorganization plans; stays of creditor actions to support negotiations; and hybrid restructuring procedures, such as preventive insolvency procedures.

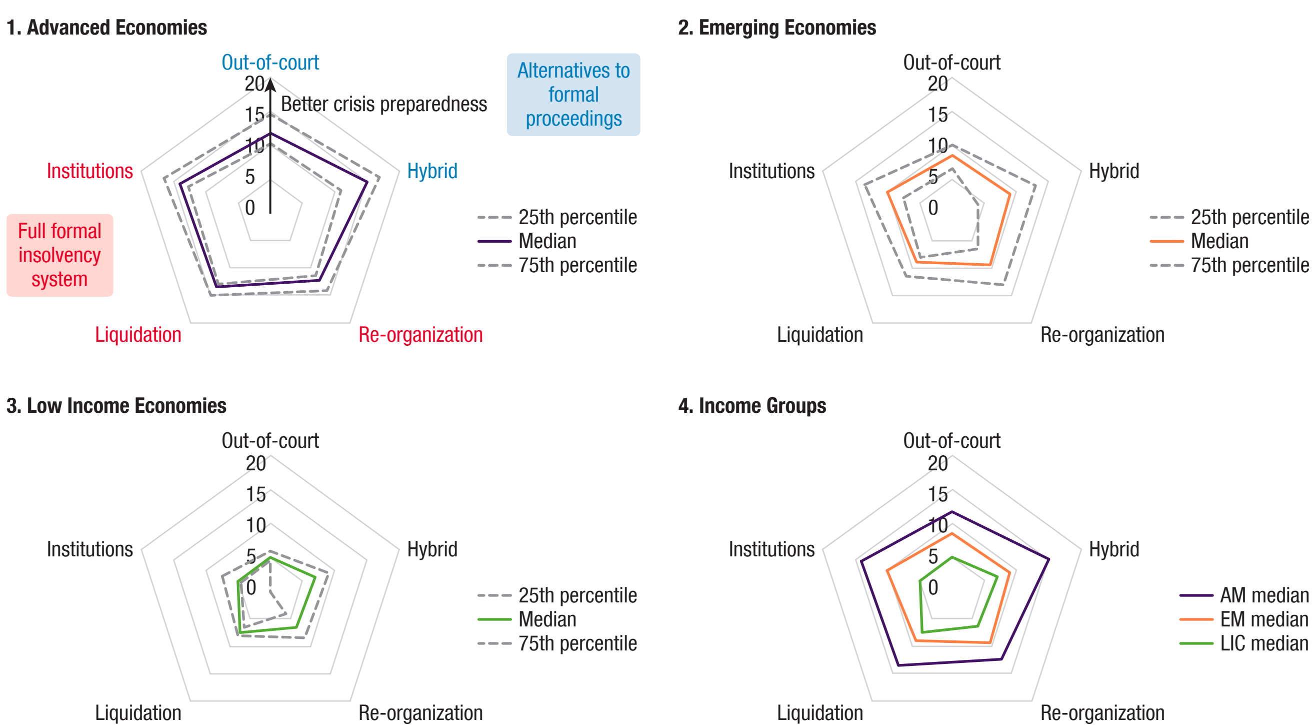
3. *Reorganization*, including debtor-in-possession regimes; stay of creditor actions; treatment of executory contracts; regulation of post-petition finance; approval of reorganizations plans; and special rules for the reorganization of micro and small firms

4. *Liquidation* as assessed against procedural simplicity; sale of the business as a going concern; rules for the sale of collateral; and technology and flexibility in the sale of assets

5. *Institutional framework*, including an assessment of the courts; the technology used in the court system; the regulation of insolvency professionals; and the regulation of other professions relevant for the insolvency system (lawyers, accountants and auditors, and appraisers).

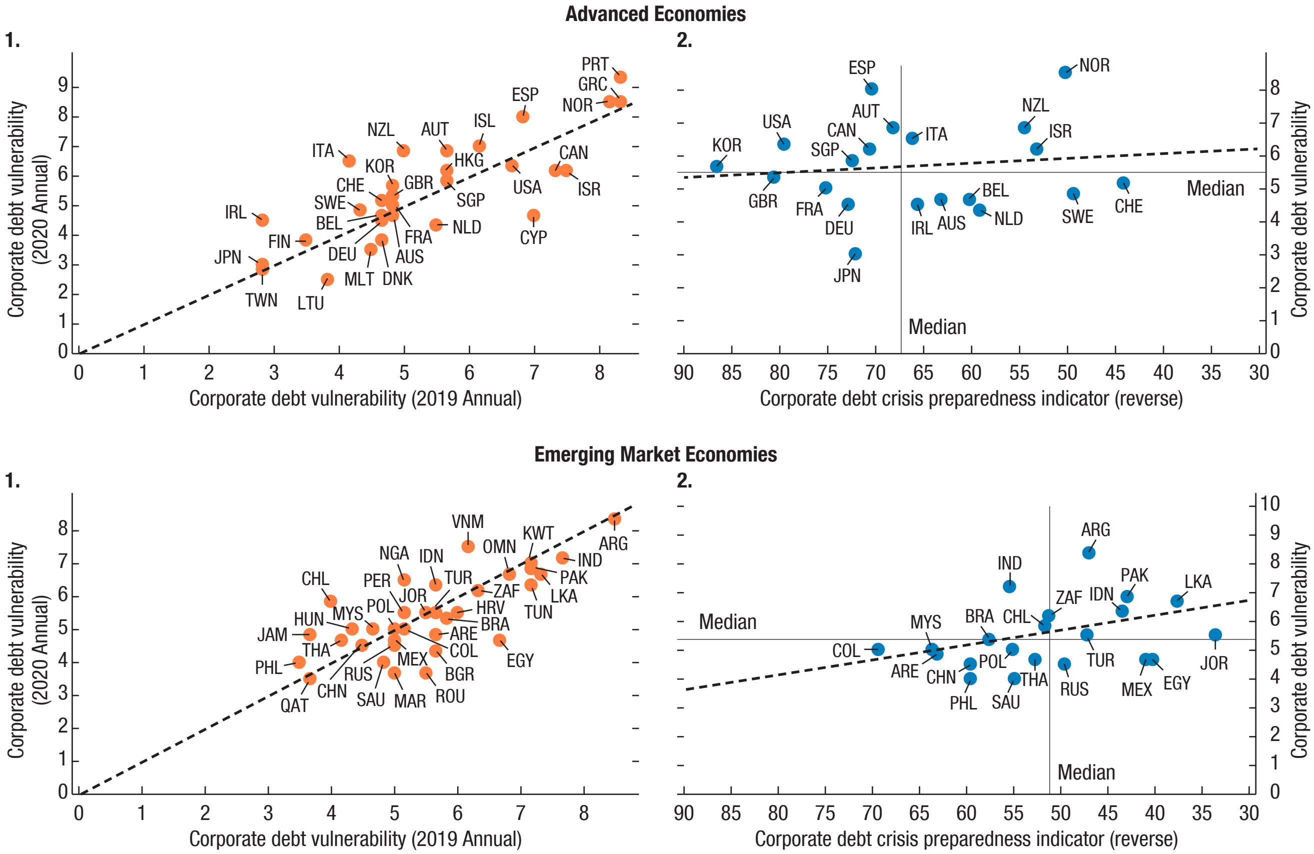
The indicator offers a broad and representative perspective of crisis preparedness across the membership as it covers 60 countries, including advanced and emerging market economies and low-income countries. These countries represent 91 percent of the world's GDP, 84 percent of the global population, and cover all regions. The indicator can reach a maximum score of 100, wherein each of the five sub-indicators has the same weight in the total score. Within every sub-indicator several aspects impact the score—with different weights according to their relative importance, as explained in Annex 3—and each aspect is graded according to the *Report on the Observance of Standards and Codes* (ROSC) methodology (that is, 4 grades: 0–25, 25–50, 50–75, and 75–100). This gives a numerical value for each element in each sub-indicator, up

Figure 5. Crisis Preparedness Indicator



Source: Authors' calculations.
Note: The farther away from the center, the higher the value of the sub-indicator and therefore the level of crisis preparedness is higher. *Dotted lines* show the lower and upper quartile, respectively, and the *colored lines* give the median (50th percentile of the distribution).

Figure 6. Corporate Debt Vulnerability and Crisis Preparedness



Sources: SP Capital IQ; World Bank; and authors' calculations.

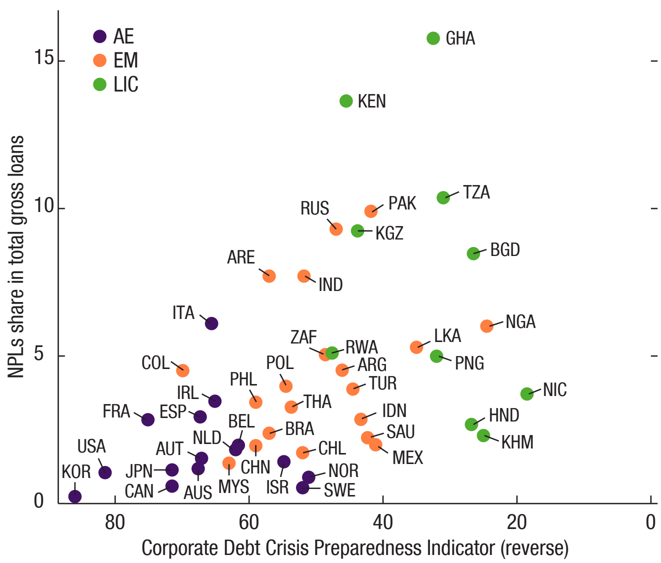
to a maximum score of 20 for each sub-indicator, and total maximum score of 100. Figure 5 shows the crisis preparedness sub-indicators for advanced economies, emerging market economies, and low-income countries (panels 1–3) as well as median results for these development levels (panel 4). Annex Table 3 gives the sub-indicators for each country.

The need to strengthen crisis preparedness is made more urgent by the fact that some countries with deficiencies in insolvency systems tend to also display higher corporate vulnerabilities. To assess corporate sector risks the paper relies on balance sheet data of publicly listed firms[4] (Box 2). Corporate vulnerability metrics show that a significant proportion of countries observed an increase in their corporate vulnerabilities post-COVID shock (Figure 6, left scale). Moreover, particularly in emerging market economies and low-income countries, many countries that tend to have larger corporate vulnerabilities also display weaknesses in resolving insolvencies (Figure 6, right scale). A similar narrative emerges from contrasting the indicator against nonperforming loans in the banking sector (Figure 7): weaknesses in institutional and legal frameworks to facilitate restructuring, reorganization, and liquidation of firms undermine a timely and cost-effective resolution of nonperforming loans (NPLs).

The results highlight different policy priorities across country groups:

[4] The cross-country corporate sector vulnerability analysis exclusively covers companies that are publicly listed due to lack of timely information on non-listed firms, including small and micro firms.

Figure 7. Nonperforming Loans and Corporate Debt Crisis Preparedness



Sources: IMF FSI; and authors' calculations.

- *Advanced economies*: Advanced economies score better in all the areas that contribute to a better crisis preparedness. In particular, advanced economies have good hybrid restructuring mechanisms, which can be extremely useful in the event of a crisis. As hybrid restructuring relies on the limited intervention of the courts (see Chapter 5), and the court systems in advanced economies tend to be more effective, it is understandable that they have developed hybrid restructuring solutions as the preferred complement or alternative to formal insolvency proceedings. There is room for improvement in the use of out-of-court restructuring and the strengthening of the legal environment for restructuring. Regarding the formal insolvency system, most advanced economies have the basic elements necessary for reorganization and liquidation, and a proper institutional framework, but there are areas that could be improved. Among these,

Box 2. Measuring Corporate Vulnerabilities

The measurement of corporate vulnerabilities (described in more detail in Annex 2 and Annex Table 2) is largely built from balance sheet data for publicly listed nonfinancial firms summarized in a score of corporate vulnerabilities, comprising six key metrics: return on assets (percent), leverage ratio (percent), interest coverage ratio, cash ratio (percent), debt at risk (percent), and firms at risk (percent). Specifically, the approach comprises the following three steps:

1. *Balance Sheet Metrics*. Compute at the firm level return on assets, leverage ratio, interest coverage ratio, cash ratio, and debt at risk (Nelmes and others forthcoming), using annual balance sheet data from Standard & Poor's Capital IQ database for 2019 and 2020 for all available firms across countries.

2. *Country-level Metrics*. These correspond to the median values across firms within each country. In this step, one additional country-level measure is added: the share of investment grade (IG) firms. The share of IG firms (based on Probabilities of Default obtained from the Credit Research Initiative, National University of Singapore) in a country complements the balance sheet metrics to provide an overall proportion of vulnerable corporates in the country.

3. *Summary Score and Risk Rankings*. The summary score is calculated as a simple average of the percentiles of individual variables within country income groups. Finally, the summary score is expressed on the scale of 1 to 10. Low, medium, and high risks are assigned if a country is below the 33rd percentile, between the 33rd and 66th percentile, and above the 66th percentile of the corresponding variable, respectively. For return on assets, cash ratio, and share of investment grade firms, the scale is reversed. That is, lower values of these variables correspond to higher risk in the summary score computation.

the regulation of executory contracts and post-petition finance in reorganization, as well as the rules for the approval of reorganization plans are crucial for the most complex cases of corporate distress. The development of special procedures for micro and small enterprises is a recent trend and few countries have introduced them. Liquidation regimes can also improve, particularly by simplifying procedures and introducing modern technologies for the sale of assets.

- *Emerging markets economies*: For this group of countries, there is a clear need to improve the institutional framework for insolvency systems. The priority should be to ensure that courts have sufficient expertise and adequate resources, but numerous countries have not yet developed the regime for insolvency administrators. Most emerging market economies could introduce or improve hybrid restructuring techniques. Improvements in liquidation and reorganization are needed, similar to those described for advanced economies. In general, the reforms in the past few decades have improved reorganization more than liquidation.

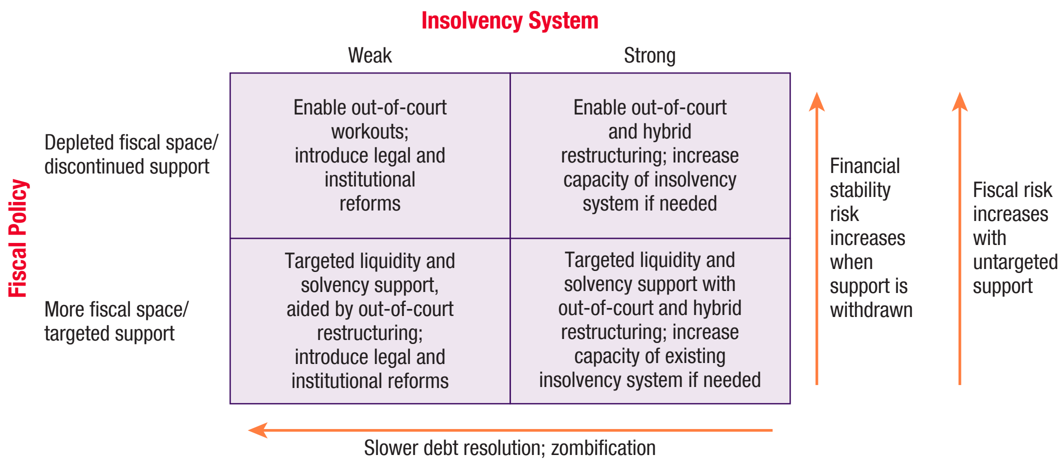
- *Low-income countries*: There are challenges in all the crisis preparedness areas. Serious shortcomings in the institutional framework may even affect the assessment of the insolvency regime, whose modernization has not always brought a close alignment with best practices. Improvements in out-of-court restructuring, in the enabling legal environment for restructuring, and the introduction of hybrid restructuring would have a significant positive impact on crisis preparedness.

3. Moving to Targeted Support

Prolonging untargeted support risks zombification of firms as well as exhausting policy space that should be used more efficiently. As policy space shrinks and mobility restrictions dissipate, policy support should prioritize efficiency and become targeted. Zombies weigh on economic performance because they (1) are less productive, (2) lead to lower investment in and employment at more productive firms, and (3) stifle entry and growth of new firms (Adalet McGowan, Andrews, and Millot 2018, Banerjee and Hofmann 2018, 2020). That said, market solutions still need to play a vital role in facilitating an efficient allocation of resources.

Feasible policy options vary according to the countries' fiscal space and capacity of insolvency regimes (Figure 8). Countries with more fiscal space and effective insolvency systems have a relatively rich set of options, including the possibility to provide additional financial support to firms (through continued liquidity support and direct equity injections), or resorting to a more market-driven solution for debt restructuring (for example, United States and United Kingdom). Essentially, the choice between targeted support and restructuring should consider the nature of firms' difficulties: If there are weaknesses in firms' business models that put into question the viability of such firms, restructuring becomes essential. If the difficulties are judged as temporary and the business model is viable, targeted support should be extended to firms. But these assessments are subject to significant uncertainty and risks as the section discusses.

Figure 8. Tackling Actual or Potential Wave of Insolvencies: Policy Options for Corporate Support and Debt Restructuring Based on Country Characteristics



Source: Authors.

Although judicial reforms take time, deploying out-of-court and hybrid solutions for debt restructuring can support relatively quickly the formal insolvency process. Countries with weak insolvency regimes need to rely more on out-of-court workouts. Among these countries, those with more remaining fiscal space have the option to provide further government support and incentives for restructuring, while implementing legal and institutional reforms. Countries with ineffective insolvency systems are at higher risk of slow progress in debt resolution.

Policy options carry different types and degrees of risks. Public support involves trade-offs. Specifically, when it comes to equity and equity-like support, countries that rely more on solvency support and less on private debt restructuring could face substantial fiscal risks. With the government playing a larger role in picking winners and losers, the risk of poorly targeted support increases, resulting in prolonged misallocation of resources and limiting private debt restructuring and burden sharing. Countries with depleted fiscal space may be forced to discontinue policy support and risk a wave of insolvencies and disorderly debt restructuring, which can be exacerbated by market failures discussed earlier in Box 1. This would also fuel financial stability risks increase when government support is withdrawn. Fiscal risks are reduced when government support becomes more targeted.

Beyond fiscal space and strength of insolvency systems, the state and development of the financial sector will influence the appropriate policy actions. Countries that entered the COVID-19 crisis with an already elevated level of NPLs in banks' portfolios would need to more urgently adopt measures to address weaknesses in supervision, insolvency systems, and the functioning of distressed debt markets. Resolving NPLs also stimulates demand for new loans and facilitates debt restructuring for viable firms while promoting the exit of unviable firms (Aiyar and others 2015). Reducing NPLs is particularly important for SMEs, which in most countries rely largely on traditional bank funding. Asset management companies (AMCs) can be a catalyst for resolution of impaired loans, including legacy NPLs, and help jump-start and support the market for distressed debt (see Chapter 7).

In a crisis scenario, the large caseload could be addressed with out-of-court restructuring and hybrid restructuring, while courts can focus on reorganization cases. Sorting out viable and nonviable firms is a process that can be embedded in a triage (Box 3). Out-of-court restructuring would reserve judicial resources to the most complex and demanding cases requiring judicial reorganization. Nonviable firms need to be promptly liquidated. The urgency in reorganizing firms is much higher than in liquidation because of the speed at which the financial and economic condition of firms can deteriorate. This often leaves only a small time-window to reorganize.

Box 3. Triage: Case for Liquidation, Reorganization, and Financial Restructuring

In a typical triage, firms are divided in three groups: those that are not viable and need to be liquidated, distressed firms that are viable but need restructuring, and distressed firms that will recover their viability even without restructuring and public support. The second group, formed by firms that can regain their viability through restructuring, deserves more attention: While the term restructuring refers to all kinds of modifications necessary to tackle financial distress, restructuring can be financial (changes to the debt or capital structure) or operational (such as changes to the business operations, including contracts, business plans, and locations). Some firms may regain their viability through financial restructuring, and some firms will also need operational restructuring. This implies that for firms that only need financial restructuring, out-of-court restructuring, and hybrid restructuring are feasible options, whereas firms that also require operational restructuring need a judicial process (reorganization).

The choice between in- and out-of-court restructuring options should consider viability assessments and the degree of creditor's cooperation (Table 1). For instance, in cases where there are creditor holdouts, hybrid restructuring is a preferred option (as the only way to force a restructuring on an unwilling creditor by means of judicial intervention), but it may not be feasible when insolvency regimes are ineffective and inefficient.[1] As out-of-court workouts tend to be more difficult to implement in countries with ineffective insolvency systems, options are not only limited but may be also less effective. A key priority in such cases is to strengthen insolvency legal and institutional regimes.

[1] An effective insolvency system is one that achieves its goals, namely preserving viable firms and liquidating non-viable firms. An efficient system achieves the same objectives but also at a minimum cost. See Garrido and others 2019.

Table 1. Legal Options: Viability and Creditor's Agreement

Enterprise Situation	Action Required	Degree of Creditors' Agreement	Procedure
Viable	Financial restructuring	Unanimous or broad creditor agreement	Informal or enhanced out-of-court restructuring
	Financial restructuring	Majority agreement to bind holdout creditors	Hybrid restructuring
	Financial and operational restructuring	Majority agreement to bind holdout creditors	Reorganization
Nonviable	Reallocate assets, distribute proceeds	No need for agreement	Liquidation

Source: Authors.
Note: In red, full, formal (judicial) insolvency proceedings. In blue, alternatives to full, formal insolvency proceedings.

Furthermore, measures to address debt overhang could be complemented with policies that help ensure a sustainable corporate sector in the post-COVID-19 economy. The COVID-19 crisis induces structural change, with shifts in consumer preferences as well as changes in supply chains, compounded by other, more long-term, structural changes affecting the global economy. Hence, business models will in many cases have to adapt to these changes. Promoting corporate restructuring will free up resources than can be directed to these new growth areas and help companies to adjust. Identifying complementary policies is outside the scope of this paper but they could support labor, product market and regulatory reforms as well as the transition to a greener and more digital economy. Furthermore, policies to "steepen the start-up curve" can complement efforts to "flatten the insolvency curve." Several countries have adopted specific measures to this end. For example, France has set up a €4 billion fund to support start-up liquidity, including bridging start-up funding; Germany announced a tailored start-up aid program, expanding and facilitating venture capital financing; and the United Kingdom has announced a co-financing fund for innovative companies facing financial difficulties (OECD 2020).

Past corporate debt crises can offer useful lessons for the current circumstances. For instance, the Tequila Crisis is relevant with respect to the design of conditional debt relief programs for firms; the experience from the Asian financial crisis can help guide how to better design out-of-court mechanisms for debt restructuring; and the global financial crisis (GFC) and the subsequent European debt crisis can offer useful advice on how to improve insolvency systems and tailor solutions to micro firms and SMEs. These lessons are further discussed in the upcoming chapters.

- The *Tequila Crisis*[2] highlighted that strong banking supervision, sufficient enforcement capacity to incentivize corporate restructuring, effective insolvency systems and strong institutions (shielded from political and financial interests) are critical when providing public support. The reduction in firms' net worth not only fuels default risk but also disincentives lending by banks and creates adverse selection and moral hazard on the side of the firms (Mishkin 1999). A weak financial sector is unable to provide the financing necessary to restructure firms.[3]

- The *Asian financial crisis* produced evidence that corporate restructuring is essential for economic recovery and must be supported by an adequately capitalized financial sector (Das 2000). This crisis also showed that in the absence of properly functioning insolvency systems, out-of-court restructuring offers a viable alternative, particularly for large companies. Out-of-court restructuring required support by the state and benefited from idiosyncratic cultural factors.

[2] Also referred to as "Mexican peso crisis."

[3] Loan guarantees, as part of the 1995 bailout, helped restructure short-term debt—but rising interest rates, falling real incomes, and high unemployment induced a steep increase in loan defaults.

- The *GFC* affected both large and small businesses: Direct state support was deployed only for extremely large companies. The bulk of firms were restructured through a combination of out-of-court and hybrid restructuring, and judicial insolvency proceedings, thanks to relatively strong insolvency systems. Nevertheless, peaks of insolvency cases resulted in backlogs and excess liquidations.

- The *crisis in European countries* affected SMEs more than large firms. Out-of-court solutions were less effective than hybrid restructuring, due to a higher degree of reliance on the judiciary and some distrust in negotiated solutions. The crisis demonstrated the need to reinforce the institutions in charge of administering the insolvency system, as well as the increasing role of new market players, such as distressed asset funds.

Lessons from past crises, however, need to be adapted to the unique features of the current crisis. First, many past crises resulted from precrisis vulnerabilities in both the corporate and banking sector (as documented in the twin-crisis literature). This time around, the impact of the crisis on the financial sector will in most cases manifest only later (particularly when financial sector support is withdrawn and the true extent of financial sector damage becomes visible). This implies that the sequencing of policy actions, namely (1) support to firms, (2) restructuring, and (3) financial sector support, may evolve, with potential overlap among polices. Second, any solution will need to recognize the role of the state as a major creditor, given the large support extended, including through explicit and implicit public guarantees, expanding the traditional role of the state as a creditor for tax and social security contributions. Third, while governments may have expanded its role in providing corporate support compared to previous crises (for example, due to the increased policy space, lower competing resources for the financial sector, stronger appetite for policy support due to the nature of the crisis), exiting from such policies may prove difficult, and could depend on the type of support provided (for example, role as shareholder, debt-equity swaps). Fourth, insolvency regimes and in-court capacity have improved in many countries, and restructuring experience was gained in some countries, which has expanded the range of feasible solutions compared to the past.

4. Solvency Support

Addressing corporate debt-overhang problems may require a combination of liquidity and solvency support for viable firms, coupled with debt restructuring. Liquidity support helps alleviate temporary financing constraints, but it does not resolve the problem of excessive debt and weak solvency positions. The latter requires new solvency support and/or debt restructuring, which may need to be coupled with liquidity support to ensure appropriate bridge financing during the restructuring process.

A. How to Allocate Policy Support

Policy support should become targeted toward viable firms that cannot obtain financing (equity or debt) at reasonable cost through private markets. Viability determination[1] involves making projections about the future capacity of the firm to generate income and service debt, along with an assessment of whether the firm can generate an adequate return on investment. For debt-distressed firms, there needs to be a comparison between liquidation value (that is, the recovery value of the assets if the firm were liquidated now) and the firm's net present value (discounted future cash flows). At this juncture, the usual difficulties in determining firm viability are compounded by uncertainties around the extent of structural change induced or accelerated by the COVID-19 shock. Being mindful of these challenges and circumstances, some key *practical considerations for viability determination* include:

- *Creditor-driven*. The viability assessment can be conducted by financial institutions that have not only skin in the game but also more experience and knowledge about the firms, supported by the government, and aided by third-party specialists.
- *Transparent criteria and data*. The determination of viability should rest on transparent and fair criteria and utilize as inputs financial data gathered before and during the pandemic, as well as projections for the post-COVID-19 economy.
- *Risk-based*. Persistent uncertainty in identifying the transitory and permanent changes in the post-COVID-19 world, coupled with capacity constraints, calls for a risk-based approach. This means allocating resources to sectors and firms that appear to have relatively better prospects of recovery but also facilitating the liquidation of non-viable businesses and the reallocation and redeployment of resources. A risk-based approach, however, does not prevent extending support to some nonviable firms (Bernstein and others 2019a, 2029b, Liu, Garrido, and DeLong 2020).
- *Prioritization*. Support should be channeled to viable firms without market access. But when resources are limited, a necessary pecking order arises. Viable firms strongly affected by the pandemic employing a significant number of people or dedicated to activities that are deemed essential for the functioning of the economy and society may need to be prioritized.
- *Targeted support versus restructuring*. Support to viable firms will be more effective when firms have solid business models and suffer from merely temporary difficulties because of the pandemic. If firms present lasting underlying problems, restructuring is a better option than providing solvency support since restructuring implies recognition of losses and ensuring that firms emerge with sufficient capital, a sustainable debt burden, and a viable business model.

[1] Viability has traditionally been assessed on the level of individual firms. However, for small firms, this process is often too costly and inefficient. Chapter 6 discusses standardized restructuring approaches as a simpler and less expensive solution, particularly useful for SMEs. Tressel and Ding 2021 propose methods that can be used to compensate for the lack of timely data.

B. Forms of Policy Support

The government can provide solvency support through (1) equity and (2) other instruments:

Equity support through equity and equity-like instruments, such as non-voting preferred shares, convertible bonds, or profit participation constructs, do not alter control.

- For *unincorporated firms*, which is the most common form of micro and SMEs, hybrid financing instruments may be the only feasible option besides grants.[2] Hybrid instruments include mainly subordinated loans or profit participation loans (which are conditional on positive enterprise returns). Such instruments with government participation can be a catalyst for private equity investment, also because their use often comes with transparency requirements which give way to enhanced reporting essential for effective monitoring. Grants can be used to support micro-firms, in particular given their limited reporting disclosures, financial intermediaries may not have an informational advantage (Ebeke and others 2021). Case-by-case viability determination as well as the administration of support to a very large number of small firms can quickly become inefficient.
- For *incorporated SMEs*, options include subordinated debt instruments, including non-voting preferred shares or (contingent) convertible bonds (with conversion conditional on performance). In return for longer repayment periods and not taking managerial control, the public sector can participate in profits (see Bauer and others 2021).
- For *large firms*, rebalancing the capital structure is relatively straightforward if equity markets can be accessed or if debt obligations are restructured with creditors. For many firms, especially those that are unlisted, however, markets are unlikely to provide all the equity needed, and the government can consider providing equity to close the gap if the business is deemed viable.

Other solvency support includes conditional and unconditional debt relief, loan forgiveness (for example, United States), or cancellation of tax and social security liabilities (for example, United States CARES Act 2020). Solvency support can also be indirect, for instance through tax relief for financial intermediaries, and support of investor balance sheets, including through public-private investment, public guarantees, or other forms of risk transfer. Countries can also reduce or eliminate the tax advantage of debt (for example, Italy and Turkey) and provide incentives for debt-to-equity conversions.

The provision of solvency support, if used, should include strong safeguards. Given political economic considerations and concerns about moral hazard and adverse selection, any such public interventions should be:

- based on transparent selection criteria focusing on distressed but viable firms
- limited to firms that became distressed due to the pandemic – firms already in distress prior to the COVID-19 shock should be excluded but still need restructuring
- designed to mitigate the growth and financial stability implications from debt overhang problems—other policy objectives can be pursued if synergies exist
- limited to a specific pre-announced time-period
- certain to include a clear exit-strategy to reduce longer-term uncertainties regarding the government's involvement and the path to more independence.

[2] Grants (and certain other direct transfers) can be effective support measures for SMEs, especially when other measures appear difficult to assess and administer, and the overall fiscal impact of such grants is relatively small.

C. Lessons from Past Episodes of Solvency Support

Strategic bailouts can have a substantial near-term fiscal impact and pose medium-term risks. The GFC provides a rare example of bailout of large and strategically important corporations (for example, automotive industry) in advanced economies (Grigorian and Raei 2010). The three major US auto companies—General Motors, Chrysler, and Ford—were deemed too big to fail, directly employing 240,000 people. There were also fears about the knock-on effects on the rest of the auto industry, including suppliers, as well as the economy more broadly. The US government provided about $81 billion in loans and equity investments.

Unconditional solvency support through debt relief, beyond limited grant-like programs to support micro firms, should be avoided as this approach typically fails to distinguish viable from nonviable firms, leads to moral hazard, and carries significant fiscal costs. Debt transfer from the private sector to the government instead of debt restructuring creates incentives for poor risk management by borrowers and banks because of the lack of burden sharing (Calomiris, Klingebiel, and Laeven 2004). And the fiscal costs can be quite substantial. Overall, the experience with government actions that entail debt substitution rather than restructuring has been mixed at best (Laryea 2010).

Conditional debt relief as part of workout programs can help provide support to firms while incentivizing debt resolution and burden sharing. Government subsidies for corporate debt relief should be conditional on both lenders and borrowers contributing to debt resolution. These incentives motivate market participants to engage in a workout program, increase burden sharing, and lower taxpayer cost. Further, to the extent that financial institutions are not in severe distress, they may be in a better position to help drive debt restructuring.

Burden sharing is a critical component of public support programs. In the case of Mexico's Punto Final program (1998), for instance, the debt relief program involved burden sharing between the lenders, the government, and the borrower (Box 4). The government and the lenders offered a predetermined haircut on the debt of borrowers that had been current on their loan payments, with the discount depending on the specific program, the amount of the loan, and whether the bank restarted lending to the enterprise sector. To support the availability of fresh funds to finance firm restructurings, new loans to SMEs qualified for an additional government discount. Table 2 compares Mexico's Punto Final program with a recent proposal by Blanchard, Philippon, and Pisani-Ferry 2020. The proposal foresees a leading role for markets to determine haircuts with the government matching the banks' discount and providing a continuation premium. This would bridge the difference between the private and social value of the firm, thereby addressing a key market failure.

Box 4. Mexico's Punto Final Program

As part of the program's leg directed to SMEs, the Mexican government offered discounts that varied according to four criteria. First, larger discounts were applied to lower tranches of the loan to provide greater relief to smaller-sized firms (see Table 2). Second, the government granted discounts only after banks contributed to the first part of the discount (this ensured burden sharing between banks and the government, as the contributions to the discount varied according to loan tranche). Third, the government would grant an additional discount depending on the loan amount granted to SMEs aiming to secure fresh funds to the sector. For every 3 pesos of credit granted to the SME sector, the government would grant an additional dollar in discount up to a certain threshold. Fourth, the discount, applied to interest and principal payments, was granted only if borrowers were up to date with payments.

Box 4. Mexico's Punto Final Program *(continued)*

As discussed in Calomiris, Klingebiel, and Laeven 2004, 800,000 agricultural or fishing farms, 212,000 SMEs, and 456,000 mortgage loan holders benefited from the program. Its cost has been estimated at 3.3 percent of GDP, which was shared between the government and the banks in different proportions according to type and amount of loans. The relative success of the Punto Final program was due to (1) a loss-sharing mechanism geared toward small loans, (2) incentives for banks to restart lending, (3) self-selection, and (4) an effective dispute settling mechanism.

Despite the desirable features, the program was not fully effective due to institutional weaknesses. This included the lack of a credible supervisory authority with sufficient enforcement capacity to incentivize financial institutions to recognize losses and engage in corporate restructuring, the lack of an efficient insolvency system (which provides the credible threat that banks can use to encourage borrowers to participate in voluntary loan workouts), and the presence of politically connected lending in an environment where politicians, business groups, and banks are intertwined, and seek mutual advantage at the expense of taxpayers (Calomiris, Klingebiel, and Laeven 2004).

Box Table 4.1. Punto Final Program: SMEs Discount Rates and Burden Sharing

Loan tranches (pesos)	Banks (%)	Government (%)	Government (conditional; %)	Total marginal discount rate (%)	Total average discount (%)
0–500,000	22.5	9	13.5	45	45
500,000–2,000,000	8.5	6.4	5.1	20	45–26.25
2,000,000–10,000,000	0	0	0	0	26.25–5.25

Source: Comisión Nacional Bancaria y de Valores (CNBV), Circular 1420.

The strength of the institutional framework is an important precondition for the effectiveness of conditional debt relief programs. Past experience suggests that shortcomings on the institutional front often arise from a lack of a credible supervisory authority with sufficient enforcement capacity to incentivize financial institutions to recognize losses and engage in corporate restructuring, ineffective insolvency systems (deficiencies in courts and insolvency administrators), and clientelism by interest groups. This involves an assessment of the strengths and weaknesses of institutions responsible for the different areas connected with corporate restructuring and addressing any identified shortcomings. Relevant ministries and regulatory agencies (including commercial registries, tax administration, small business administration, bank supervisors) need to be involved in the design and implementation process and coordinate cross-agency issues, including data gathering and sharing.

Table 2. Conditional Corporate Debt Relief

	Punto Final Program	Blanchard and Others 2020
Context	Mexico (1998)	Covid-19 Crisis
Program	Debt relief for SMEs	Debt relief for enterprises
Type	Government-led debt-relief program	Market-led debt relief program
Total discount	Up to 60% of the book value of the loan	Haircut agreed by private creditors (×2) plus a fixed continuation premium. The continuation premium should be equal to the difference between the social and the private value of the firm (e.g., between 20 percent and 30 percent).
Discount setting	Set by the government	Market determined
Bank contribution	Pre-set discount which depends on the program, and the amount of the loan	Banks decides discount
Government contribution	Pre-set discount which depends on the program, the amount of the loan, and on whether the bank restarted lending to the sector.	Government matches bank's discount automatically
Borrower contribution	The relief was offered to bank debtors that would be current with their loan payments.	Not discussed
Incentives for fresh funds	For every three pesos of new loans extended by the bank to the specific sector, the government would assume an additional one peso of discount. Only new loans to individuals and small and medium-sized enterprises would qualify for counting towards receiving this additional government subsidy.	Not discussed
SME targeting	Loss sharing was geared towards small loans, as the discount offered was higher for smaller loans.	Not discussed

5. Promoting Corporate Restructuring

Countries for which the number of insolvency cases is expected to exceed capacity limits, should increase the capacity of the system, and/or "flatten the curve" of insolvencies. In a crisis, the insolvency system can be quickly overwhelmed by a rising number of insolvency cases. Addressing the limited capacity of the judicial system to deal with an increased caseload should be a key priority.

Flattening the curve of insolvencies requires using restructuring techniques to complement full, formal insolvency proceedings. Countries should address any deficiencies in their insolvency regimes to increase their effectiveness, but this may take some time.[1] In parallel, countries should seek to reduce full formal insolvency cases to a level that can be managed by the insolvency system by designing and promoting alternatives to formal insolvency. To this end, the use of out-of-court and hybrid restructuring techniques can reduce the courts' involvement in insolvency cases and allows restructuring of many viable firms within a limited time. These restructuring techniques can be used to address many corporate distress situations and also as alternatives to insolvency procedures in a crisis.

A. Out-of-Court Restructuring

Out-of-court restructuring is an effective way of increasing the capacity of the insolvency system. This is particularly useful during corporate debt crises (Garrido 2012). Out-of-court restructuring, in general, is always available and refers to the restructuring actions that can be conducted by negotiations between debtors and creditors without the intervention of the courts. Out-of-court restructuring generally involves the participation of financial creditors (and sometimes, large trade creditors). If there is a broad agreement among financial creditors, it is possible to restructure the debt of firms without affecting the position of other creditors (for example, workers or small trade creditors).

Out-of-court restructuring mechanisms can be enhanced by a series of techniques. First, for the case of large corporate debtors, which often includes the coordination of multiple financial creditors, techniques include:

- *Guidelines*: Voluntary codes of conduct set out the expected behavior of debtors and creditors in the conduct of negotiations. The best-known example is the INSOL Principles for Multi-Creditor Workouts (Box 5). The guidelines can be endorsed by the national banking association or by the bank supervisor.[2]

- *Master restructuring agreements*: These agreements go a step further than guidelines. Financial institutions can agree to the steps to take in corporate restructurings in advance, including a mechanism to decide on workouts by majority. This master agreement provides the basis for restructuring in specific cases.

- *Incentives and disincentives*: These are often referred to as "*carrots and sticks*." The state can promote out-of-court restructuring by providing beneficial treatment of workouts (typically, by establishing beneficial tax treatment of debt restructuring for debtors and creditors).[3] In the current crisis, with the state as a major creditor, it would be appropriate to introduce more powerful incentives, such as higher haircuts on

[1] The insolvency system, and in particular, the specialized judiciary, faces obstacles to gain capacity quickly. A special case is the United States, which has managed to create temporary bankruptcy courts leveraging the availability of retired bankruptcy judges and the abundance of insolvency lawyers. Iverson, Ellias, and Roe 2020 estimate that between 50 and 246 additional temporary bankruptcy judges are needed in the United States and suggest re-appointing retired bankruptcy judges.

[2] The financial supervisor could have a persuasive role, leading the financial institutions subject to the central bank's supervision to sign adhesion letter to the scheme, committing them by contract to negotiate a restructuring with the debtor and other creditors by the principles of the framework (Garrido 2012).

[3] Special regulatory treatment of restructured loans, in terms of classification and provisioning, is more controversial.

Box 5. The INSOL Principles for Multi-Creditor Workouts

Since 2000, the INSOL principles have been regarded as a statement of best practice for multi-creditor out-of-court workouts, which are especially useful in the case of large corporate restructurings given the emphasis on collaboration among creditors. The set of principles builds on the "London Approach," an informal framework developed by the Bank of England during the recession in the 1970s. Its main elements were designed to: (1) keeping facilities in place and not appoint receivers; (2) information sharing among creditors to help decision making about company long-term viability; (3) form collective view on need for additional lending; (4) seniority of claims recognized but equal treatment for all creditors in a single category. The statement for a global approach to multi-creditor workouts published by the international association of restructuring, insolvency and bankruptcy professionals (INSOL International) sets out the following eight principles[1]:

I. Where a debtor is found to be in financial difficulties, all relevant creditors should be prepared to co-operate with each other to give sufficient (though limited) time (a "Standstill Period") to the debtor for information about the debtor to be obtained and evaluated and for proposals for resolving the debtor's financial difficulties to be formulated and assessed, unless such a course is inappropriate in a particular case.

II. During the Standstill Period, all relevant creditors should agree to refrain from taking any steps to enforce their claims against or (otherwise than by disposal of their debt to a third party) to reduce their exposure to the debtor but are entitled to expect that during the Standstill Period their position relative to other creditors and each other will not be prejudiced. Conflicts of interest in the creditor group should be identified early and dealt with appropriately.

III. During the Standstill Period, the debtor should not take any action which might adversely affect the prospective return to relevant creditors (either collectively or individually) as compared with the position at the Standstill Commencement Date.

IV. The interests of relevant creditors are best served by coordinating their response to a debtor in financial difficulty. Such co-ordination will be facilitated by the selection of one or more representative co-ordination committees and by the appointment of professional advisers to advise and assist such committees and, where appropriate, the relevant creditors participating in the process as a whole.

V. During the Standstill Period, the debtor should provide, and allow relevant creditors and/or their professional advisers reasonable and timely access to, all relevant information relating to its assets, liabilities, business and prospects, in order to enable proper evaluation to be made of its financial position and any proposals to be made to relevant creditors.

VI. Proposals for resolving the financial difficulties of the debtor and, so far as practicable, arrangements between relevant creditors relating to any standstill should reflect applicable law and the relative positions of relevant creditors at the Standstill Commencement Date.

VII. Information obtained for the purposes of the process concerning the assets, liabilities and business of the debtor and any proposals for resolving its difficulties should be made available to all relevant creditors and should, unless already publicly available, be treated as confidential.

VIII. If additional funding is provided during the Standstill Period or under any rescue or restructuring proposals, the repayment of such additional funding should, so far as practicable, be accorded priority.

[1] See "Statement of Principles for a Global Approach to Multi-Creditor Workouts II."

public claims than what would be granted by private creditors (Blanchard and others 2020), as discussed also in the previous Chapter. Establishing disincentives is equally important: a principal element in the success of out-of-court restructuring is the existence of a credible threat of insolvency or debt enforcement that pushes the debtor to the negotiation table. In addition, fines against participants in negotiations for unjustified delays are useful in promoting workouts.

- *Administrative support*: Although financial creditors need to take the lead in the negotiations, out-of-court restructuring can benefit from the endorsement and administrative support of the state (Laryea 2010).
- *Assistance by restructuring experts*: The concourse of national or international restructuring experts adds credibility, effectiveness, and efficiency, particularly in the analysis of viability and the preparation of restructuring agreements.
- *Dispute resolution*: Disputes in the context of the restructuring can be resolved through mediation, conciliation, or arbitration, with the assistance of legal experts. The use of alternative dispute resolution (ADR) techniques contributes to the agility of the restructuring.

In some countries, out-of-court restructuring has become an integral part of the restructuring system. Korea, Japan, and Malaysia preserved out-of-court restructuring models (Bauer and others 2021). Other countries have re-introduced out-of-court restructuring mechanisms in new crises, as Turkey did in 2018.

SMEs benefit from a more simple and economical approach to out-of-court restructuring. SME distress can quickly become systemic. While the aggregate value of SMEs can be substantial, each individual case is low-value and cannot be resolved with the high-cost mechanisms designed for large corporates. An out-of-court restructuring mechanism for SMEs profits from the following characteristics:[4]

- *Code of conduct*: Voluntary guidelines refer mainly to the debtor-creditor relationship rather than to conflicts among creditors. In many cases, the number of financial creditors involved in a distressed SME is minimal and, often, SME debt can be restructured through bilateral negotiations with a single financial creditor (typically a bank).
- *Standardized restructuring*: Conducting viability analyses is costly and developing a tailored restructuring plan can be costly too, as already stressed in Chapter 4. For this reason, an alternative is to implement standardized restructuring: this entails examining basic economic indicators of the enterprise to establish indicative viability and developing restructuring plans with standard conditions for the rehabilitation of SMEs. On the spectrum of restructuring approaches, standardized solutions fall between tailor-made solutions and across-the-board measures, such as general moratoria or general debt forgiveness.[5] Standardized approaches offer a less precise but simpler and less costly solution than restructurings based on individual viability analyses (Bergthaler and others 2015). Here, the experience with the *Icelandic Crisis*[6] is perhaps the most relevant one: The debt of distressed SMEs that could evidence positive future cash flows was written down to the value of the discounted future cash flows or to the value of their assets in liquidation. This strategy reduced enterprise debt to sustainable levels and offered creditors a superior outcome.
- *Assistance to debtors*: As SMEs lack resources, they often have no access to legal and financial advice. In some countries (for example, Japan, Korea), the state assists SMEs, including advisory services and access to financial programs (Garrido and others 2020).

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[4] Other characteristics are equally applicable to the restructuring of SMEs – particularly, the introduction of incentives and disincentives.

[5] Across-the-board measures are generally not recommended, as they fail to discriminate between viable and nonviable firms, and their fiscal cost tends to be very significant (Laryea 2010).

[6] See IMF 2011, 2012.

Some countries implemented more efficient frameworks for micro and small firms during the pandemic. While in countries like the United States insolvency frameworks work efficiently for large firms,[7] for smaller firms, formal reorganization proceedings are typically too complex and costly. To this end, some countries have introduced or are introducing special insolvency frameworks for micro and small enterprises that are more efficient for smaller firms (for example, United States,[8] Singapore, and Australia). These frameworks largely follow the debtor-in-possession model for reorganization proceedings instead of the insolvency resolution model of creditor-in-control. Debtors can continue to manage operations even after the commencement of the insolvency process, without transferring control to the insolvency professionals—a strong incentive to use reorganization (see Chapter 6).

Out-of-court restructuring mechanisms can be implemented relatively quickly and easily scaled up or down. In contrast to court-based systems, there is higher flexibility in increasing and decreasing the resources necessary for out-of-court restructuring.[9] But this requires agreement by the financial sector, support from the banking supervisor, commitment by the state, and sufficient pressure on the firms to negotiate. The most complex cases or those where there are serious conflicts among creditors, or between creditors and the debtor, still need to be handled in court. See Annex IV for country case studies on out-of-court restructuring (Annex Table 4).

B. Hybrid Restructuring

Hybrid restructuring addresses shortcomings in out-of-court restructuring through limited judicial intervention. Out-of-court restructuring relies on effective creditor cooperation. Absence of creditor cooperation results in two problems: 1) creditors who engage in *debt enforcement* (seizing the assets of the debtor and paralyzing its business activity); and 2) creditors who *hold out* against a majority, putting at risk the feasibility of the restructuring agreement. In pure out-of-court debt restructuring, these two problems can only be addressed by a contractual agreement. Hybrid restructuring provides an effective way of dealing with hold-out creditors, since it may involve the limited intervention of the courts with the effect of blocking creditor actions (stay of creditor actions) or imposing a restructuring plan adopted by a majority (binding the dissenting creditor minority).

Hybrid restructuring requires legal amendments while reducing the use of judicial resources. Pre-insolvency procedures are more complex to design as legal reforms produce the benefit of a more rationalized use of judicial resources, with a corresponding increase in the capacity to restructure distressed firms.

- *Pre-packaged insolvencies* are the best example of a hybrid restructuring mechanism. Pre-packaged plans require targeted legal amendments to be implemented. A pre-pack refers to an application for a reorganization procedure that already includes a reorganization plan and the necessary support from creditors.[10] Once the application is presented,[11] the court can verify that the legal requirements have been met and the reorganization plan can be confirmed within a short period. This resolves the hold-out problem and minimizes the use of judicial resources, but it should include enough safeguards to avoid

[7] High-profile cases already in the initial phase of the crisis entered formal insolvency proceedings (typically Chapter 11 and 7, United States Bankruptcy Code) or undergo voluntary reorganization.

[8] Small Business Reorganization Act (SBRA), effective since February 2020.

[9] The capacity of out-of-court debt restructuring is more flexible because is based on the assistance of private sector specialists (lawyers, accountants) and countries can even recruit foreign professionals to assist in restructuring activities.

[10] In United States practice, there is a distinction between a "pre-packaged" reorganization, and a "pre-arranged" reorganization. In the latter, a reorganization plan has been prepared and discussed with the main creditors, but the necessary majorities have not been met.

[11] Based on published information (The Deal Pipeline and FTI consulting), the average ordinary reorganization procedure in the United States during the 2011–18 lasted 504 days. Pre-packaged reorganizations for the same period lasted only 77 days on average. A recent pre-packaged case in the United States lasted only 16 hours: of course, excessive speed can also become a problem, as it may result in loss of remedies for dissenting creditors.

a fraudulent use of this fast-track process. The United States' practice in pre-packaged bankruptcies is a good example of a rapid solution for corporate debt distress. Other countries where pre-packs are frequent include Korea, the Netherlands, and the United Kingdom.[12]

- *Pre-insolvency procedures* combine aspects of out-of-court debt restructuring and judicial insolvency procedures and are complex to design. Pre-insolvency procedures not only use limited judicial intervention for the approval of a reorganization plan but also judicial authority to prevent creditors from taking enforcement actions against the debtor. Therefore, pre-insolvency procedures integrate both a stay of creditor actions and the judicial confirmation of a reorganization plan. The stay of creditor actions addresses the problem of individualistic action by creditors. Limited judicial intervention enables a negotiation that culminates in a restructuring plan, without incorporating all the elements of judicial insolvency proceedings. This approach is widely used, particularly in Europe (France, Germany, Italy, Spain, and all European Union countries incorporating the European Union Restructuring Directive) but also outside the European Union, countries such as Argentina and Brazil also adopted this approach.

While out-of-court restructuring mechanisms can be used temporarily, hybrid restructuring typically becomes a permanent element of the insolvency system. Out-of-court restructuring mechanisms can be put in place and removed with relative ease. The changes introduced in the legal system to implement hybrid restructuring remain, as they can be useful even in normal times. Most countries seem to prefer either out-of-court restructuring mechanisms or hybrid restructuring. Only a few countries use both techniques (for instance, Japan and Korea) although this approach would perhaps constitute the most effective way of dealing with large corporate debt crises.

C. Lessons from Past Episodes of Out-of-Court and Hybrid Restructuring

Experience with out-of-court restructuring in past crises has resulted in important improvements, including:

- *Arbitration with specific deadlines helps avoid excessive reliance on the formal judicial process in resolving disputes*. Korea (1997) created the Corporate Restructuring Coordination Committee (CRCC) to act as an arbitration committee. The CRCC was responsible for assessing corporate candidates' viability for restructuring, arbitrating differences among creditors, enforcing its decisions, and, when necessary, modifying workout plans proposed by participating creditors. Within one month of an application for arbitration from a presiding bank, CRCC provided a written opinion to all the debtor's financial institution creditors and the relevant regulatory agencies.

- *Penalties for failure to meet deadlines can incentivize workouts*. For example, in the case of Korea (1997), if a signatory to the agreement failed to comply with an approved workout agreement or an arbitration decision, CRCC could fine this signatory up to 30 percent of the credit amount in question or up to 50 percent of the cost of non-compliance. The CRCC would decide the criteria for distributing the fine among the other financial institutions.

- *Incentives to provide fresh funds can help finance restructurings*. For instance, in Turkey (2001), the Istanbul approach, a voluntary, non-judicial workout program based on the "London Approach", contained provisions allowing companies to supplement their borrowing in case of a liquidity shortfall or pressing maintenance needs. In Korea (1997), a series of restructuring funds (three debt and one equity fund) were established and managed by international, accredited fund managers, with the Korean Development Bank

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[12] However, in the United Kingdom, "pre-pack" has a specific and different meaning: a pre-agreed sale of the company as a going concern that is confirmed in an insolvency process.

as the main investor. The government also established a real estate investment trust to allow companies to sell their land and buildings and to lease them instead, with the option to repurchase the leased real estate in the future.

- *The financial supervisory authority should encourage financial institutions to sign on to the accord*. A large body of creditors signing the accord implies that agreements reached among the majority can be enforced on other creditors without formal judicial procedures. For example, in Korea (1998), 210 local financial institutions signed the corporate restructuring agreement, encouraged by Turkey's *Financial Supervisory Commission*. In 2001, Turkey introduced the "Istanbul Approach," aimed at addressing policy and regulatory implications and the tax incentives needed to support the workout. In 2018, Turkey re-introduced an out-of-court restructuring framework to tackle widespread corporate debt distress. The "Istanbul Approach 2.0" is based on a regulation that contemplates a framework restructuring agreement, signed by Turkish lenders and open to the participation of foreign banks. The restructuring approach follows standard principles.

Out-of-court workouts, however, are not independent of the quality of formal insolvency proceedings. The formal insolvency system provides the backdrop against which workout negotiations take place. Immediate measures to tackle the crisis should not postpone the adoption of reforms. In the Asian Financial Crisis, countries implemented out-of-court restructuring frameworks and, at the same time, embarked on ambitious programs of legal and judicial reform. However, during the 2001 crisis, Turkey's bankruptcy framework was a drag to the workout program. Debtors sought shelter from creditors through the bankruptcy process, while banks sought to leverage their position and have the government and international institutions bail them out of their distressed debt. As such, designing an effective incentives-structure to support voluntary workouts proved difficult. While out-of-court workouts and hybrid restructuring approaches may be effective in many countries, shortcomings in the insolvency regime and formal judicial system could still hold back debt resolution progress. Countries in this group are of particular concern, and likely need external assistance to create the fiscal space to support the restructuring process, through workout incentives, while introducing reforms to improve their insolvency regimes over the medium term.

In the United States, out-of-court restructuring played a prominent role in the 1980s, but less so during the global financial crisis. At the end of the 1980s, investors in overleveraged companies increasingly found ways to bypass the expensive Chapter 11 process and pursue less costly and more efficient ways to restructure their debt out of court (Annex Table 4). During the global financial crisis, legal innovations have blurred the line separating Chapter 11 from out-of-court restructuring. Recognizing that both methods of restructuring had certain benefits, distressed companies increasingly filed for prepackaged or pre-negotiated Chapter 11, combining the most attractive features of both methods.

Compared with the Asian financial crisis, out-of-court restructuring did not get much traction in the European crises. Going into the crisis, European insolvency systems were more developed than those in Asia and able to rely more on their existing legal and judicial structure. Further, cultural factors—like societies traditionally dependent on judicial dispute resolution and distrusting out-of-court restructuring, and public creditors (tax and social security, public banks) reluctant to compromise their claims outside judicial processes—meant a reduced use of out-of-court restructuring. The consequence was often significant delays in restructuring and substantial backlogs in courts. Therefore, hybrid restructuring frameworks were designed that resorted more to pre-packaged reorganization plans and preventive insolvency procedures with limited court intervention.

Many European countries overhauled or upgraded their insolvency regimes since the global financial crisis (Aiyar and others 2015). During 2009-2015, several European countries upgraded their insolvency regimes in line with international best practices. Some of these countries significantly overhauled their insolvency regime (for example, Cyprus, Latvia, Poland, and Romania). Others improved their regimes by simplifying the insolvency process (for example, Greece, Italy, Latvia, Portugal, Slovenia, and Spain), or introducing enhanced features, such as debt-to-equity swaps or other debt-restructuring mechanisms (Croatia, Germany, Latvia, Slovenia, and Spain), pre-insolvency procedures (Croatia, Germany, France, Romania, Slovenia, and Portugal), or fast-track prepacked insolvency procedures (Croatia, Greece, Italy, Latvia, Portugal, and Serbia). Several countries enhanced out-of-court frameworks either with hybrid features (Italy, Portugal, and Spain) or without (Latvia, Portugal, Romania, Slovenia, and Serbia).

The lack of simplified and cost-effective frameworks for micro and small firms was another crucial factor undermining timely debt resolution. Some countries introduced out-of-court restructuring schemes or enhanced/hybrid restructuring specifically targeted to micro and small firms. By 2015, economic conditions stabilized across Europe but NPLs continued to increase in many stressed economies (even more so for countries outside the euro area, with a few exceptions), with persistent NPLs linked to unresolved private debt overhang (Aiyar and others 2015). Particularly, the lack of simplified and cost-effective frameworks for micro and small firms was a key obstacle to NPL and distressed debt resolution. In the United States, a new simplified reorganization procedure was introduced right before the beginning of the COVID-19 crisis (in February 2020), and European countries are following suit by introducing modifications to restructuring procedures to accommodate the needs of micro and small enterprises.

The pace of insolvency and restructuring reforms in other parts of the world has been sustained. Since the aftermath of the GFC, insolvency and restructuring reforms have continued in all world regions—not only in response to crises but also to establish a solid foundation for access to credit, investment and growth. For instance, there have been wide-ranging reforms of insolvency frameworks in countries like Chile (2014), Mexico (2014), India (2016), UAE (2016), Singapore (2018), Ghana (2020), and Brazil (2020). Some countries (like Korea, Malaysia, and Turkey) preserved or revamped their debt restructuring mechanisms introduced during previous crises.

6. Building More Effective Insolvency Regimes

Even in countries with ample support programs for firms, insolvency and debt restructuring mechanisms need to perform a fundamental role. Insolvency and debt restructuring have two crucial functions in market economies: restructuring viable firms and liquidating those firms that are not viable, facilitating the redeployment of assets to more productive uses. In episodes of severe corporate debt distress, insolvency and debt restructuring mechanisms are equally necessary, but they may need to be adapted to be able to respond to the extraordinary pressure of large increases in the number of distressed firms.

In the COVID-19 crisis, the relative importance of insolvency and debt restructuring depends on several factors. As factors like the severity of the crisis, the quality and capacity of the insolvency system, the availability of alternatives to full formal insolvency proceedings, as well as the amount of remaining fiscal space will vary across countries, the role of insolvency and debt restructuring will also differ across jurisdictions. Judicial insolvency proceedings (reorganization and liquidation) offer solutions for a distinct set of cases where financial and operational restructuring is required (reorganization) and cases of nonviable firms (liquidation).

A. Reorganization

Firms that require financial and operational restructuring should be addressed by formal reorganization. Operational restructuring implies changes in the contractual relationships of the enterprise and changes affecting the workforce. These changes typically need judicial intervention. The use of judicial resources should be prioritized in tackling these cases, which may only preserve enterprises' viability if swift actions are taken.

Countries should assess their formal reorganization proceedings to address any shortcomings. The UNCITRAL Legislative Guide provides a well-established template for the design of reorganization proceedings. Reorganization proceedings are complex, comprise sophisticated technical rules and demand an elevated level of expertise in the judiciary.

In a crisis, several desirable features of reorganization proceedings stand out. These features include the following:

- *Debtor-in-possession*: One of the options for the governance of reorganization proceedings, according to the international standard, allows debtors to continue managing their businesses while in reorganization. This creates a powerful incentive for debtors to enter the process at an early stage, instead of delaying it until liquidation becomes the only option. Due to this advantage, the debtor-in-possession model has been adopted in numerous countries in Europe, Asia, and Latin America, and the United States.

- *Stay of creditor actions*: Creditors cannot use enforcement remedies and seize assets during judicial proceedings, and the stay essentially avoids a destructive "creditors' race" to seize the assets of the debtor. It imposes cooperation among creditors and allows the preservation of the going concern value of the enterprise. However, the rights of secured creditors must be protected: the value of security interests need to be safeguarded against the risk of loss or depreciation of collateral, and secured creditors need to have the possibility of enforcing on their collateral, especially when the assets are not necessary for the reorganization. There are good models for the regulation of the stay of creditor actions in the United States, Korea, Germany, and the European restructuring Directive.

- *Executory contracts*: Operational restructuring includes the essential aspect of revising the existing contractual relationships of the enterprise. It is often the case that the enterprise needs to cancel some of the existing contracts to regain viability. An effective reorganization law allows the enterprise to honor contracts that are necessary for its viability and cancel unprofitable contracts. United States law has set the standard for the treatment of contracts in reorganization, and many systems are converging on this standard treatment, including Australia and Singapore. However, there are some countries where the treatment of executory contracts presents serious challenges (for example, India, Turkey).

- *New finance* (or *post-petition finance*): In a restructuring or reorganization, obtaining new funding is imperative to continuing the operations. Enabling such financing requires giving priority to the providers of fresh funds, with proper safeguards for existing creditors. Legislation for new finance is necessary but not sufficient as existing banking regulation can create disincentives for extending loans to companies that are undergoing reorganization. However, during crises the market for new funding can dry up quickly (Grigorian and Raei 2010). For this reason, in the United States, there have been proposals to create a special government financing facility to provide financing for distressed firms (Brunnermeier and Krishnamurthy 2020; DeMarzo and others 2020; Skeel 2020b).

- *Class formation and "cram-down" in the approval of plans*: The goal of reorganization is the confirmation of a plan that sets the enterprise on a course to regain and preserve viability. The mechanism for the approval of a reorganization plan requires a complex set of checks and balances to promote adoption of plans and effective protection of dissenting creditors. Creditors need to be separated in classes to promote the protection of diverse interests. Majority requirements are combined with an option of cross-class cram-down.[1] Dissenting parties are protected mainly by guaranteeing that they would receive under the plan at least the same payments that they would receive in a liquidation of the enterprise, and by respecting the priority in distributions among the different creditor classes. The United States model has been replicated, with peculiarities, in the European restructuring Directive. Japan and Korea also have similar systems for the approval of plans.

In addition, countries can consider the introduction of simplified and lower-cost reorganization procedures for smaller firms. Since reorganization proceedings have been historically designed for large firms, there is a gap in many legal systems as far as the reorganization of micro and small enterprises is concerned. Although the use of these procedures may not be widespread, and since reorganization works best when there is a reasonable going concern value of a firm, it represents an additional tool that could be useful in the current crisis. Typically, these proceedings simplify and reduce costs by eliminating creditor committees, reducing deadlines, and assisting the debtor in the preparation of a reorganization plan (Diez and others 2021).

Another issue is the role of the state in reorganization and in restructuring of firms. When governments provide ample support, their creditor position will be stronger compared to the government's traditional role of creditor for tax and social security claims. As indicated before, governments can incentivize the reorganization and restructuring of firms, particularly, by taking a higher haircut on their claims than private creditors on theirs. Government incentives can act as a "premium for continuation" (see also the proposal by Blanchard, Philippon, and Pisani-Ferry 2020) and effectively reduce the number of liquidations. To be clear, it is easier to provide haircuts on state claims that have unsecured status as priorities for tax and social security claims, common in many countries, can complicate the approach of states to reorganization and restructuring (Diez and others 2021). As states will have more significant creditor positions than in the past, it will be imperative for them to participate actively in restructuring and insolvency proceedings generally.

[1] Cross-class cram-down means that the plan can be confirmed even if one or several of the creditor classes vote against the plan, provided that procedural and substantive safeguards are respected.

B. Liquidation

Liquidation proceedings provide an exit mechanism for nonviable firms and facilitate the redeployment of assets to more productive uses. Essentially, liquidation performs two functions: (1) maintaining competition in the market by removing inefficient firms and (2) minimizing the damage to creditors through the recovery of proceeds.

In many cases, however, firms leave the market without undergoing a judicial liquidation procedure. Often, the lack of significant assets or the absence of a plurality of creditors does not justify the relatively high cost of a liquidation process.[2] The number of firms exiting the market is not only reflected by liquidation filings, but also in the deregistration of firms with the commercial registries and the tax authorities.[3] Moreover, liquidations are not particularly effective at minimizing creditors' damage. When firms find themselves at the point of non-viability, the destruction of value implies large creditor losses, and market failures can negatively impact liquidation sales. Eventually, widespread liquidations may result in fire-sales and a downward spiral which amplifies the effects of the crisis (see Shleifer and Vishny 2010; Claessens and Kose 2018) and may require public intervention, such as subsidies to reduce liquidation costs (Choi and Cook 2012).

Specific reforms can be adopted to make liquidation proceedings more efficient:

- *Effectiveness and procedural simplicity.* To be effective, liquidation needs to proceed fast, providing the liquidator with sufficient powers and limiting the court to a supervisory role can help achieve that goal. Since the submission, verification, and ranking of claims can generate complex litigation and delays, separating the sale of assets from the process of verification of claims can accelerate the process and reduce losses. Inefficiencies in liquidation exist in most countries, and this is one of the reasons for the typically low recovery rates in liquidation.

- *Sale of the business as a going concern*: The law should provide the opportunity of selling the business as a going concern, or of selling productive units, before selling assets piecemeal, which typically generates smaller proceeds. Several legal systems (Spain, France, Poland) include this hierarchy of solutions for the sale of assets. This requires a short stay on secured creditors' actions to avoid dismemberment of the firm.

- *Sale of collateral*: Aside from a short stay, secured creditors should be able to enforce their claims on the collateral as soon as possible, and should be given flexibility as to the methods of sale, if there are appropriate safeguards for the rest of the creditors.

- *Use of technology and flexibility in the sale of assets*: Numerous countries have created electronic platforms that advertise judicial sales and publish information about the assets and their condition. Furthermore, compared to traditional auctions, e-auction systems are more resistant to manipulation and provide better opportunities for bidders (for example, Greece, Hungary, Italy, and Spain). But In terms of flexibility of sale methods, the law should avoid the mandatory use of public auctions for all classes of assets.

In the context of a crisis, it is more important to support quick restructuring and reorganizations than accelerating liquidations. Liquidations can be slower than reorganizations, due mainly to complex litigation and the lack of incentives for the debtor. Delayed liquidations result in higher damage to creditors and the economy more broadly, but delays undermine turning firms around.

[2] In cases where there is a significant asset (for example, real estate) and a major creditor (that is, bank with a mortgage over the real estate), the adequate legal response is the use of debt enforcement mechanisms, rather than a liquidation process.

[3] In some countries, the number of liquidations tends to be much higher because of the effect of personal liability rules: when directors of a company are under the duty to file for insolvency, at the risk of incurring personal liability, and such duty is actively enforced, the number of liquidations soars.

C. Institutional Framework for Insolvency

The insolvency regime rests on a proper institutional framework. The complexity and sophistication of insolvency legislation demands specialized personnel in charge of interpreting and enforcing the laws. It is noted, however, that changes in the institutional framework normally take a long time to implement.

Countries can take the following measures to improve their insolvency institutions:

- *Specialization of judges*: Some countries have specialized insolvency courts (Korea, Thailand, United States). In most countries, however, the level of insolvency activity does not require the creation of specialized insolvency courts: establishing commercial courts for corporate and commercial cases, provides judges with an excellent specialization for the trial of insolvency cases (for example, France, Spain, United Kingdom).
- *Use of technology*: As in other areas, the pandemic has accelerated the digital transformation of justice. Greater use of technology in the insolvency process increases its efficiency. Examples of the use of modern technology include electronic case management; electronic communications; virtual court hearings, virtual creditor meetings, and remote voting systems. The Israel, Korea, and the United States are examples of integration of technology in the operations of the courts.
- *Regulation of the insolvency professionals*: Insolvency professionals perform various roles in the insolvency system (liquidators, examiners, experts) but in all cases their concourse is essential for the effective functioning of the system. Insolvency professionals need to be appropriately regulated, including entry requirements to the profession, rules of conduct, supervision, and a sanctioning regime. Countries such as Australia, India, and the United Kingdom have established comprehensive regimes for the regulation of insolvency professionals.
- *Regulation of support professionals*: The insolvency ecosystem is formed by not only judges and insolvency professionals, but also a number of supporting professions (lawyers, accountants, auditors, and appraisers) that need to be properly regulated for an insolvency and restructuring system to be fully functional and effective. As with insolvency professionals, issues in the regulation of supporting professions are frequent in low-income countries and should be addressed to improve the functioning of insolvency regimes.
- *Use of data*: Countries should also devote resources to the collection and analysis of insolvency data to help assess the performance of the system and support the design of reforms (Garrido and others 2019).

7. Support to Financial Institutions

Banks, as main creditors of many corporations, will need to remain well capitalized to provide a continued flow of credit to the real economy. In most countries, the losses in the enterprise sector will ultimately impact the banking system, with loan losses deteriorating the lenders' solvency position and reducing lending space for bridge financing. There is a risk that some financial institutions will need to restore capital positions, which—depending on market conditions—may not be met fully by the private sector. The government may have to step in and recapitalize lenders such that both continued enterprise funding and an effective monetary transmission are ensured. Here, the lessons learned from the GFC and other crises will be useful (Claessens and others 2011; Laeven and Valencia 2020), including the need to deploy public funds to manage financial stability risks (Bauer and others 2021, Dell'Ariccia and others 2018). To clean up private sector balance sheets, there is a need to first identify and then remove impediments to effective resolution of distressed assets, guided by a clear and comprehensive restructuring strategy to restore the soundness of the banking system (Moretti, Dobler, and Piris 2020).

Timely bank asset quality reviews may be necessary in some cases to provide greater transparency. Quantifying the NPL problem is typically complicated by the unavailability of timely data, inefficient reporting (Ong and Pazarbasioglu 2013) and misaligned incentives leading to undue forbearance. Indeed, after initial lessons had been learned from bank recapitalizations during or immediately after the GFC, asset quality reviews (AQRs) were used to increase transparency and attract private investors. AQRs are, essentially, snapshots of bank portfolios and largely backward looking. AQRs are therefore frequently complemented with forward-looking stress tests and reviews of bank viability and funding structures (Gutierrez and others 2019).

Lenders will need to address losses from the recession as well as deal with increased credit risk. Initially, bank-internal credit risk units work on troubled exposures, aiming also at disposing risky assets through outright sales of loans or securitizing NPLs portfolios. Further NPL management and reduction tools include (1) individual measures, including restructurings of banks or parts of a bank, and bank-specific AMCs (typically in the form of special purpose vehicles), with or without securitization of assets, as well as (2) systemwide measures, such as fully or partly state-owned AMCs, which are managed at least to some extent centrally by authorities. Such centralized approaches to NPL resolution were successfully used in the Asian and Nordic crises and to some extent during the GFC (for example, Ireland). Establishing AMCs (see Annex 4, Annex Table 5) can further help encourage the development for secondary markets for distressed assets which is critical for providing banks an additional tool for managing NPLs and bringing in private equity firms and distressed asset funds as investors. In the current crisis, AMCs should play a complementary role in the debt restructuring process to provide relief to banks while managing troubled corporate loans.

However, AMCs entail non-negligible risks, can result in high fiscal costs, and often suffer from governance problems. These include political interference, overpaying for assets, or various forms of corruption. Experience suggests that successful AMCs were those that (1) covered a relatively homogenous basket of assets like mortgage loans or loans to the largest corporates; (2) had clearly defined mandates typically to maximize the recovery value of transferred assets and to minimize contingent liabilities of the government; (3) transferred assets close to market values with no or limited subsidization; (4) disposed of their assets quickly aided by sunset clauses[1]; and (5) were subject to independent governance, transparency, and accountability requirements. Funding is a critical issue for every AMC, and experience suggests that

[1] The time-window should be long enough to allow for value realization through sale, restructuring, or foreclosure and sale of collateral.

its operating budget should be separated from the funding allocated for asset purchases and be sufficient to fund reorganizations and restructurings.[2] Clearly, AMCs should not be used to indirectly recapitalize financial institutions or bypass an ineffective legal and regulatory environment.

2 Annex 4 provides a more in-depth description of country cases.

8. Conclusion

The COVID-19 pandemic inflicted a significant damage on the enterprise sector requiring a strategy to support its recovery, including restructuring. A wave of corporate insolvencies has not materialized owing to the wide-ranging and unprecedented policy support and improved economic prospects due to vaccine rollouts. However, solvency risks in the corporate sector have not fully dissipated and will need to be managed as untargeted policy support is removed. A strategy to that end is needed, including to avoid zombification of firms, address corporate debt overhang, and ensure a sustainable corporate sector in the post-COVID-19 economy.

A multipronged strategy is needed that may include targeted support and legal reforms to facilitate debt restructuring, liquidation, and reorganization of firms. Collaboration between government agencies and the private sector is key, particularly regarding data gathering on the extent of corporate distress (for example, commercial registries, tax authorities, and the financial sector). The strategy may include support measures and the deployment of restructuring and insolvency tools. Any additional support should be directed to viable firms with no market access while legal and institutional reforms should ensure the availability of effective tools to facilitate restructuring and reorganization of viable firms but also the exit of nonviable ones. Some broad considerations for the elements of such strategy include the following:

- First, policy support schemes require clear objectives as to what market failures are meant to be addressed. Complementary policies, beyond the scope of this paper, can support other policy objectives and further ensure the transition of the corporate sector to a sustainable postcrisis economy.
- Second, policy support schemes should include strong governance and transparency safeguards to mitigate risks and put in place clear ex ante exit plans. Burden sharing and debt-restructuring schemes that make use of the informational advantage and skills of private creditors can be particularly advantageous. Public creditors should actively participate in debt restructuring.
- Third, where fiscal space is largely depleted and the insolvency regime are ineffective, strategies should rely on out-of-court and hybrid restructuring approaches, while the necessary legal and institutional reforms are adopted and become fully effective. Countries where fiscal space is ample have more options to provide support but should be mindful of the risks of zombification and moral hazard.
- Fourth, countries with insufficient policy tools or ineffective legal and institutional frameworks to restructure, reorganize, and liquidate firms should urgently address these shortcomings. Some reforms may take time to bear fruit and should be tackled immediately to strengthen preparedness over the medium term alongside with improvements in or development of out-of-court and hybrid restructuring options that take less time to implement. In contrast, improvements in out-of-court and hybrid restructuring can be made relatively quickly and support the short-term performance of the insolvency framework.
- Fifth, all countries can improve their crisis preparedness, but priorities differ: AEs have an advantage in the quality of their insolvency framework, particularly because the law is applied by strong institutions, and many AEs are increasing the use of hybrid restructuring. However, they could simplify their liquidation proceedings, adjust technical aspects of their reorganization proceedings, including for small firms, make better use of out-of-court restructuring, continue using modern technologies in insolvency proceedings, and create a legal environment more conducive to restructuring. In EMs, there have been improvements in insolvency legislation in recent times, although many technical aspects can improve, but the priority

should be strengthening the court system and insolvency administration. LICs face important challenges in their institutional frameworks and the operation of insolvency laws. For this reason, improvements in out-of-court restructuring and in hybrid restructuring would increase crisis preparedness faster.

- Finally, contingency plans will be needed to ensure lenders' balance sheets remain sound as losses from corporate exposures materialize. To this end, tools used in the past, including the global financial crisis, can be reactivated. Any use of asset management companies should consider that experience suggests that their success hinges on the overall design including their governance framework.

Annex 1. Policy Support Measures during the Freeze Phase

Fiscal policy support provided temporary relief, including by helping firms cover immediate financing needs (Annex Table 1.1). The support to firms included mainly wage subsidies, often conditional on maintaining employment (such as in Canada, many member countries of the European Union, Japan, New Zealand, and the United States); job retention schemes that typically involved a reduction in work hours but maintained employment, like *Kurzarbeit* (such as in Austria, Canada, Germany, France, United Kingdom); grants (particularly to businesses directly affected by restrictions imposed by the health authorities); direct lending by the government or support for loans provided by financial institutions, typically with a subsidy or guarantee element, for example, Germany's KfW (2020), the USDA 2020 Lending Program, United States CARES Act 2020, GOV.UK (2020), negative taxes for all or specific segments of firms (like SMEs or those hard to substitute); refundable tax credits for taxpayers with low earnings (for example, the United States); and the deferral of tax and social security liability payments (IMF Policy Tracker 2021).

Appendix Table 1.1. Fiscal Expenditure and Revenue Measures to Support Liquidity

	Options	Examples of Measures	Country Examples
DIRECT	Direct grants, direct lending with government as creditor	Direct fiscal transfers; and government-subsidized loans, often via SPVs	Germany, US, UK
	Wage subsidies	Fiscal support for employee wages, often conditional on maintaining employment or restructuring	Canada, EU member states, Japan, New Zealand, US
	Job retention schemes	Typically involves reduction in work hours while not cutting jobs, and conditional	Canada, EU member states, especially Austria, France, and Germany
	Negative taxes	Negative lump sum tax; negative SME tax; refundable tax credits	US Employee Retention Credit; Paycheck Protection Program
	Expenditure policies that support a green recovery	Public investment in sectors and firms that support sustainable long-term growth	Colombia, EU, Japan, Korea, Morocco, New Zealand, Nigeria
INDIRECT	Postponing, reducing or canceling tax and social security liability payments	Deferral/relief of tax and social security contributions	Many countries
	Loan guarantees to incentivize liquidity provision through market	Guarantees for new or existing non-GOV loans, sometimes sectoral, sometimes with grants	Many countries

Source: Authors

Expansive monetary policy has been essential for markets, intermediaries, and firms. Monetary policy has been crucial in supporting liquidity in markets and providing liquidity to financial institutions which in turn provided funding to firms. Central banks also responded to the COVID-19 shock with near-zero policy interest rates, aggressive forward guidance, asset purchases in the secondary market, and establishing less stigmatized alternatives to discount windows. Further, the Federal Reserve's dollar swap lines have helped ease concerns around dollar shortages in the global financial system.

To support the continued flow of credit to the real economy, policymakers eased financial regulation, including using the flexibility embedded in existing financial and accounting frameworks. Reflecting stronger capital positions since the global financial crisis across jurisdictions (IMF 2020e, Chapter 4), regulators in many cases advised to release bank capital and liquidity buffers while restricting capital distribution to boost lending space. Actions included using the flexibility built into regulatory and accounting frameworks (for example, BCBS 2020) to limit or postpone the provisioning, recognition, and accounting of loan losses and to modify loans without classifying them as restructured, where possible (IMF 2021b).

Many countries also adopted important legal changes to reduce the flow of insolvency cases. These changes, additional to the temporary suspension of activities like court hearings, foreclosures, and evictions due to health concerns, fell broadly under two categories:

- *Moratoria on debt enforcement and insolvency*. These temporary moratoria (for example, France, Germany, India, Italy, and Turkey) were intended to avoid a surge in insolvency cases that would likely have exceeded the capacity of insolvency systems. These actions suspended new insolvency petitions presented by creditors against debtors ("involuntary insolvencies"). In India, a moratorium on involuntary insolvencies also extended to voluntary insolvencies (that is, those commenced by debtors).[1] In other countries, the moratorium on insolvencies was also accompanied by a moratorium on debt enforcement, essentially barring the seizure of assets by creditors.[2]
- *Suspension of the duty to file for insolvency*. Insolvency systems generally introduce a duty of directors to file for insolvency when the situation of the company requires it (*duty to file*, mainly used in civil law countries). Alternatively, the law may establish that directors are personally liable if they continue to trade when there are no prospects for the continuation of the business (*wrongful trading*, used in common law countries). In the case of crises, these rules can rapidly increase the number of insolvency cases and cause the collapse of the system. Numerous countries (for example, Australia, France, Germany, India, Italy, Singapore, Spain, and the United Kingdom) suspended temporarily those rules intended to tackle distress at an early stage.

In addition, countries introduced accommodations for ongoing insolvency cases. Courts adopted "moth-balling" practices that kept reorganization cases "frozen" to avoid that the ongoing proceedings would turn into liquidations due to missed deadlines and defaults. Some civil law countries introduced rules to extend deadlines and amend reorganization plans (for example, France, Italy, and Portugal).

1 The Indian government imposed the moratorium in June 2020 for defaults occurring from March 25, 2020. The moratorium lasted for 12 months.

2 These moratoria must be distinguished from payment moratoria adopted or recommended by banking supervisors. Payment moratoria reschedule payments of existing loans, whereas debt enforcement moratoria directly restrict the rights of creditors to enforce their defaulted loans.

Annex 2. Measuring Corporate Vulnerabilities

Annex Figure 2.1. Corporate Debt Vulnerability Matrix by Country Groups

Level of risk: Low | Medium | High

1. Advanced Economies

	Return on asset (%)	Leverage ratio (%)	Interest coverage ratio	Cash ratio (%)	Debt at risk (%)	Share of IG firms(%)	Summary score [1–10]
PRT	2.16	70.05	3.24	21.49	9.82	65.50	9.33
NOR	3.41	63.20	4.60	29.55	9.88	55.30	8.50
GRC	2.66	60.60	2.42	40.70	27.71	64.80	8.50
ESP	2.91	65.80	3.87	39.60	17.18	81.70	8.00
ISL	3.12	58.60	3.03	19.33	2.80	83.30	7.00
NZL	3.05	52.95	3.42	22.18	9.66	83.30	6.83
AUT	2.20	59.95	5.58	45.72	46.33	86.00	6.83
ITA	2.83	61.55	8.91	43.62	24.28	81.00	6.50
USA	4.01	62.45	4.96	43.59	6.21	65.90	6.33
ISR	4.09	60.70	5.86	32.95	12.15	83.00	6.17
HKG	2.49	45.30	6.41	40.84	3.79	63.20	6.17
CAN	4.25	53.50	4.46	42.53	8.07	64.70	6.17
SGP	2.66	42.70	5.49	59.88	4.16	58.90	5.83
KOR	2.37	41.30	7.05	36.56	13.33	91.50	5.67
GBR	3.91	50.90	7.38	43.58	3.98	60.10	5.33
CHE	3.41	53.40	11.00	42.83	7.70	75.90	5.17
FRA	3.18	62.70	7.82	48.51	1.84	82.20	5.00
SWE	3.98	54.90	7.60	33.57	1.08	70.80	4.83
CYP	3.88	41.70	4.90	39.13	0.52	75.00	4.67
BEL	3.32	58.15	6.64	45.27	1.32	84.40	4.67
AUS	4.80	47.80	7.71	50.22	21.58	62.70	4.67
IRL	3.78	54.35	6.99	59.65	3.47	71.40	4.50
DEU	3.60	57.30	7.50	48.87	1.63	80.50	4.50
NLD	4.30	56.30	8.03	37.82	3.78	85.10	4.33
FIN	4.25	55.75	10.55	39.58	2.99	88.30	3.83
DNK	4.67	50.50	15.70	28.39	2.61	75.60	3.83
MLT	3.70	41.30	3.91	44.19	0.00	86.70	3.50
JPN	2.76	50.55	28.65	60.66	2.04	96.00	3.00
TWN	3.51	45.80	19.50	53.13	6.35	98.90	2.83
LTU	3.62	49.25	11.20	66.99	1.47	90.50	2.50

2. Emerging Market Economies

	Return on asset (%)	Leverage ratio (%)	Interest coverage ratio	Cash ratio (%)	Debt at risk (%)	Share of IG firms (%)	Summary score [1–10]
ARG	3.65	59.80	1.87	11.46	38.52	54.10	8.33
VNM	3.56	51.70	3.46	14.20	37.99	44.90	7.50
IND	3.51	45.90	3.15	9.43	12.49	20.90	7.17
KWT	1.67	47.40	2.03	36.66	15.48	46.40	7.00
PAK	4.48	54.30	2.99	5.71	10.58	47.10	6.83
OMN	3.02	54.00	2.58	21.94	9.63	50.00	6.67
LKA	4.32	49.35	2.69	16.65	31.78	49.70	6.67
NGA	4.15	54.00	3.16	33.60	30.03	30.80	6.50
TUN	4.59	52.50	2.74	17.70	32.77	68.30	6.33
IDN	3.17	46.30	2.34	25.25	17.29	60.00	6.33
ZAF	4.38	51.10	3.63	31.39	23.37	35.90	6.17
CHL	2.97	54.00	3.94	36.98	6.97	48.90	5.83
TUR	6.04	58.90	2.98	30.78	9.34	54.90	5.50
PER	3.77	48.65	5.02	20.33	10.81	50.00	5.50
JOR	1.83	28.15	2.51	20.07	3.95	61.50	5.50
HRV	2.63	45.10	5.43	20.41	4.69	45.50	5.50
BRA	5.09	61.80	3.62	43.27	3.71	28.60	5.33
POL	4.32	51.30	10.30	27.43	22.96	36.20	5.00
MYS	2.95	38.45	6.66	38.93	20.23	43.10	5.00
HUN	2.71	62.55	6.89	25.09	0.04	65.00	5.00
COL	3.63	51.40	2.88	23.38	1.23	55.60	5.00
SRB	2.21	41.10	18.55	16.29	4.47	61.50	4.83
JAM	4.28	38.95	4.38	48.46	24.20	10.20	4.83
ARE	2.75	39.75	5.88	51.13	7.39	35.10	4.83
THA	3.55	47.20	6.72	22.02	16.37	70.20	4.67
MEX	3.81	55.50	2.76	48.50	4.68	65.60	4.67
EGY	4.63	54.00	4.55	13.30	2.74	63.30	4.67
RUS	5.44	53.80	5.10	24.90	1.08	35.30	4.50
CHN	3.28	44.20	7.95	42.38	5.94	38.10	4.50
BGR	3.32	40.85	4.93	20.96	5.69	55.60	4.33
SAU	3.86	45.95	6.81	17.18	7.78	84.30	4.00
PHL	2.76	50.10	4.12	32.57	2.22	75.20	4.00
ROU	3.12	37.00	8.27	19.09	0.00	53.20	3.67
MAR	5.26	54.60	8.13	12.71	0.25	74.50	3.67
QAT	2.23	40.00	4.45	60.26	4.53	91.70	3.50

Sources: S&P Capital IQ; and authors' calculation.

Note: Note: Based on 2020 annual reporting data for publicly listed firms. 1) Return on assets is calculated as (EBIT * 0.625) / ((Total Asset(t) + Total Asset(t-1))/2) expressed as a percentage. 2) Leverage ratio is total liabilities as percentage of total assets. 3) Interest coverage ratio is the ratio of EBIT to interest expense. 4) Cash ratio is the ratio of cash and cash equivalents to current liabilities expressed as a percentage. 5) Debt at risk is defined as the total debt of public firms with ICR below 1 as a percentage of total debt of all public firms in our sample.

Data Challenges

With regard to the above analysis, a few caveats are in order. First, the analysis excludes private unlisted nonfinancial companies, which make up a large share of the gross value added and total employment in many economies. While data on private companies are available from Bureau van Dijk's Orbis, the latest available year for which data are available is 2017.[1] Second, missing network dimension could be another weakness relating to this analysis as interconnectedness within the corporate sector or more broadly with the banking sector and the public sector could increase vulnerabilities in a country. For example, distress in one firm (or a group of firms) could spread to other firms connected through financing, ownership, supply chain, and other linkages. The tendency of corporate defaults to cluster in time is also well established in the literature (see, for example, Das and others 2007). Third, more broadly, data on insolvencies are sparse. Data on total number of insolvencies for a large cross-section of countries are difficult to access. Euler Hermes, a trade credit insurance company, provides the cross-country data on insolvencies. They forecast insolvencies using available insolvency figures and historic trends.[2]

1 See, RES Staff Discussion Note and IMF (2019, Chapter 2), on limitations of Orbis data.

2 Euler Hermes forecasts follow a three-step process: first, a quantitative approach (an econometric analysis utilizing macro-variables); second, an adjustment of country-specific factors (for example, insolvency legislation on new businesses (startups mortality), financing conditions, specific issues of particular corporate sector (for example, changes in risk rating of the sector), and specific government measures targeting the sector (for example, credit cost, access to new financing); and finally, judgement by Euler Hermes experts.

Annex 3. Indicator for Crisis Preparedness of Insolvency Systems

Justification

The International Standard: Quality, Effectiveness, and Efficiency of Insolvency Systems

There are comprehensive standards for the regulation of insolvency systems. The international standard for insolvency and creditor rights is a composite standard formed by the World Bank Principles[1] and the UNCITRAL recommendations in the Legislative Guide son Insolvency Law.[2] This international standard is prepared in consultation with the IMF and is included in the Financial Stability Board's compendium of standards, due to its importance for the proper functioning of the financial sector. Because of multiple practical obstacles in conducting evaluations, there is no comprehensive assessment of compliance with the standard that would cover a wide range of countries simultaneously.

A full assessment of compliance with the standard could offer a proper measurement of "quality" of an insolvency system, since it represents a snapshot of the situation of the insolvency system as compared with best international practices and in each of its components. However, measuring "quality" is inherently difficult, since it requires not only an assessment "element by element" against the standard, but also an evaluation of the quality of the insolvency system as a whole. Metrics such as the number of areas where the system is compliant or non-compliant may not offer a fair characterization as different elements may vary in importance and affect the functionality of the system to a larger or lesser degree. From a broader perspective, it is noted that quality of insolvency regimes is an elusive concept, and it is more precise to refer to "efficiency and effectiveness" of insolvency systems.[3] An *effective* insolvency system is one that achieves its goals, namely preserving viable firms and liquidating nonviable firms. An *efficient* system achieves the same objectives but does it at a minimum cost.[4] Ideally, an assessment of effectiveness and efficiency should be done on the basis of empirical data, but data on the performance of insolvency issues are still scarce, and there are issues of comparability across systems.

The Capacity of Insolvency Systems

An essential element that impacts the effectiveness of an insolvency system is its capacity. "Quality," as indicated before, could be indicatively measured by the adherence to the international standard, but a "high-quality" regime may not be effective at preserving viable firms and liquidating nonviable firms if it lacks the necessary resources for its application. On the other hand, measuring the capacity of the system to deal with insolvency cases is exceedingly difficult, mainly because the information available is incomplete, at best.

1 See World Bank 2021.

2 The UNCITRAL Legislative Guide comprises several parts. Parts I and II were adopted in 2004. Part III, on the insolvency of enterprise groups, was adopted in 2010, and Part IV, on directors' liabilities, was adopted in 2014 (2019, 2nd ed.). Additional guidance on the insolvency of micro and small enterprises will be added in the near future.

3 See IMF 1999. The WB Principles also include a reference to effectiveness in its own title.

4 See Garrido and others 2019.

Insolvency systems tend to deal with a certain flow of cases, which increases and decreases depending on economic developments affecting specific sectors or the economy. Within this predictable range of cases, *effective* systems produce results in reasonable time periods, whereas *ineffective* systems will accumulate delays and backlogs. *Inefficient* systems do not make an optimal use of the resources at their disposal and therefore delays, backlogs, and suboptimal outcomes in general can occur more often.

Importantly, even for effective and efficient systems, a sudden increase of insolvency cases represents a challenge. The capacity of insolvency systems cannot be increased overnight as insolvency systems tend to be rigid and capacity increases are only feasible over the medium or long term. Based on studies of past crises,[5] an annual increase of 200 percent of insolvency cases or more tends to create serious issues and severely affects the functioning of the insolvency system.

Existing Indicators of Efficiency or Quality of Insolvency Systems

There are some indicators that seek to provide a measurement of the efficiency and/or the quality of insolvency systems. However, existing indicators focus on some selected aspects of the ordinary functioning of the insolvency regime, and not on how insolvency regimes may react in case of a crisis. The selected aspects of insolvency regimes seek to offer a general impression of the overall quality of an insolvency system and its suitability for performing its fundamental economic functions. The selection of some aspects and the omission of others, as well as the overall methodology, are open to discussion and debate among specialists. In any event, these indicators offer a more nuanced picture than analyses that merely take the distinction between common law and civil law as a proxy for the quality of insolvency systems.[6]

An Indicator to Measure the Crisis Preparedness of Insolvency Systems

Given the limitations of existing indicators, and the lack of adaptation to the specific challenges posed by corporate debt crises, it is useful to design an indicator that captures the features in an insolvency system that increase the ability of such systems to address a corporate debt crisis.

Based on the experience with previous corporate debt crises, a system responds best when a complete set of tools is deployed to address widespread distress situations in firms. For this reason, an indicator can measure the existence and availability of a set of tools that is most useful in a crisis, thereby providing a measure of the crisis preparedness of the insolvency system. The indicator focuses on the existence and availability of techniques, features, and institutions, that are generally relevant in conducting restructuring and insolvency activities, and particularly useful in the response to systemic crises.

When a corporate debt crisis occurs, there is a sudden surge of insolvencies that need to be addressed with restructuring and insolvency tools. Past episodes show that a 200 percent increase of insolvency casers within one year creates stress in the insolvency system and results in serious negative economic effects, by delaying insolvency cases and frustrating corporate reorganizations. We argue that an indicator that selects aspects of the insolvency and restructuring regime that are particularly relevant for corporate debt crises can provide a better sense of the strengths and weaknesses of insolvency systems.

Technical Description of the Indicator

The crisis preparedness indicator examines the legal tools and institutions that are most relevant for the treatment of widespread corporate debt distress. The indicator proposed in this paper includes *five different sub-indicators*, which in turn are composed of a variable number of elements. The indicator does not purport to offer a general assessment of the quality of the insolvency regime, or of the effectiveness and efficiency of

[5] See Bauer and others 2021, and Díez and others 2021 (referencing cases of past insolvency waves in Japan, Korea, Spain, and United States).

[6] See La Porta and others 1998; Jordà and others 2020.

the insolvency regime under normal economic circumstances. Naturally, many of the elements selected for the indicator are also relevant for the ordinary functioning of the insolvency regime. The indicator highlights the existence of elements that are not only at the core of the effectiveness of the insolvency system, but also increase its flexibility and improve its response during corporate debt crises. Conversely, some areas of the insolvency regime are not covered by this indicator: directors' liabilities, avoidance actions, some procedural aspects, cross-border insolvency, or the insolvency of enterprise groups. These are relevant issues for any insolvency system, but their importance is not necessarily higher in crisis situations.

The indicator produces a composite maximum score of 100. This measures the general capacity of the insolvency system to tackle a corporate debt crisis. As all indicators, this indicator includes implicit recommendations to strengthen the crisis preparedness of insolvency systems, and these implicit recommendations are aligned with the legal and policy analysis included in this paper. The indicator offers not only a general assessment of crisis preparedness, but also a disaggregation of results and more granular information about the areas that insolvency systems should consider strengthening to perform better specifically in corporate debt crises.

Components: Sub-indicators

The components for the indicator combine several sub-indicators that represent fundamental areas of the insolvency system. The selection of sub-indicators and their components is based on the experience with past crises, including the most recent ones. Each sub-indicator has the same weight (20) in the total score (100) of the indicator. The sub-indicators cover five areas:

(1) Enhancements to out-of-court debt restructuring

(2) Hybrid restructuring

(3) Reorganization

(4) Liquidation

(5) Institutional framework

In principle, these five areas correspond to fundamental parts of the insolvency and restructuring regime. In this regard, the indicator is aligned with the contents of the international standard. The analysis is based on the legal and institutional status of all surveyed countries by July 1, 2021. Within every sub-indicator there are several elements that provide the score. The number of these elements is variable. While this approach increases the complexity of the elaboration, it also increases the accuracy of the indicator. Each aspect is graded according to the ROSC methodology (4 grades: 0–25; 25–50; 50–75; and 75–100). This gives a numerical value for each sub-indicator.

(1) Enhancements to Out-of-Court Debt Restructuring

Out-of-court debt restructuring is the standard response in cases of corporate debt crises, particularly in situations where the insolvency regime is inefficient, and the caseload exceeds the capacity of the formal insolvency system. Out-of-court restructuring (also known as "informal restructuring") is less costly, more efficient, and does not depend on the quality or capacity of the judicial infrastructure, so its use can be scaled up in response to a crisis. Out-of-court restructuring can work in any type of country as long as creditors and the debtor are able to negotiate and reach an agreement. In practice, however, several problems affect the operation of out-of-court debt restructuring: coordination problems among creditors; lack of incentives for the debtor; and lack of support for debtor in the negotiation and preparation of restructuring plans (particularly, in the case of SMEs). A number of enhancements can address these problems and facilitate the operation of informal restructuring—and these represent the elements on which this sub-indicator is based.

Out-of-court restructuring frameworks: Frameworks that facilitate out-of-court debt restructuring are especially significant in corporate debt crises. The different elements included here vary in terms of their level of detail and prescriptiveness.

- *Guidelines or codes of best practice*. Debt restructuring principles, in the shape of guidelines or voluntary codes of best practice for financial institutions represent a useful step toward promoting effective negotiations among creditors and debtors. This element refers to debt restructuring principles along the lines of the "London Approach" and the INSOL Principles for multi-creditor workouts—which are generally designed for large firms with multiple financial creditors, but also to other guidelines or codes of best practice designed for enterprise debt restructuring. These principles are non-binding, but they set expectations for the behavior of parties in debt restructuring negotiations (standstill clauses, steering committees, role of lead creditors, and burden sharing in restructuring). In some cases, the basic principles have been internalized by financial institutions in their workout practice.
- *Master restructuring agreements*: A further step in facilitating restructuring of enterprise debt is the existence of a master restructuring agreement signed by financial institutions with significant operations in the country. The master restructuring agreement embodies best practice principles and provides additional detail and specific steps to reach restructuring agreements by the prescribed majorities.
- *Administrative restructuring schemes*: An additional step consists of an administrative procedure for debt restructuring. These procedures also embody generally accepted restructuring principles and may complement master restructuring agreements or exist separately. The focus of these schemes is on the procedures to follow to achieve debt restructurings.

These three elements or factors produce a joint score of 55 percent of the sub-indicator. An administrative procedure can contain both the contents of master restructuring agreements and embody debt restructuring principles. A master restructuring agreement also embodies debt restructuring principles. The administrative procedure can reach a maximum score of 50 percent, master restructuring agreements can reach a maximum of 45 percent and debt restructuring principles, on their own, can reach a maximum of 30 percent. The maximum score of 55 percent (or 11 points out of 100) can only be achieved by a combination of the elements included above. Overall, these factors produce a general image of the techniques to enhance informal out-of-court restructuring in a particular system.

Auxiliary elements for out-of-court debt restructuring

The following three factors account for the remaining 45 percent of the sub-indicator, with each element accounting for 15 percent. These elements represent important legal and institutional elements that support out-of-court debt restructuring, especially in a crisis environment:

- *Enabling environment for restructuring*. The legal and regulatory environment can create incentives and disincentives to restructuring. Special debt restructuring frameworks can incorporate "carrots and sticks" for debtors and creditors as a way to promote restructuring. Among the main aspects that influence restructuring activity, the most important one is the existence of a functional debt enforcement regime that pushes debtors to negotiate (6 percent). Other aspects include the following: tax rules that do not penalize debt restructurings and debt reductions for debtors and creditors (3 percent); the absence of a threat of civil or criminal liability for bank officials (or public officials) who grant concessions to debtors and imposing strict liability on corporate directors that do not commence formal insolvency proceedings can also negatively affect the capacity to negotiate an out of court restructuring (3 percent). Other incentives for restructuring, such as regulatory incentives for restructuring agreements, are also considered (3 percent).

- *Support for SME restructuring*: This element measures the existence of support programs for debt restructuring, which are particularly relevant for SMEs. Support programs include legal, business, and financial advice in the development of restructuring plans for businesses, as well as financial support for the restructuring.

- *Alternative dispute resolution (ADR) techniques*: Out-of-court debt restructuring greatly benefits from the use of ADR techniques. Mediation, arbitration, or conciliation can be used to resolve controversies among creditors and between creditors and debtors. The legal system may ensure the general availability of these techniques. In addition, debt restructuring frameworks may incorporate ADR solutions. The indicator measures the general availability and regulation of ADR techniques, as well as its applicability to creditor-debtor and inter-creditor disputes. Specific use within existing debt restructuring mechanisms provides a higher score.

(2) Hybrid Restructuring

Hybrid restructuring is a generic term that encompasses several ways in which out-of-court debt restructuring is assisted by limited judicial intervention. Hybrid restructuring is especially important in the context of corporate debt crises, since it allows the restructuring of a large number of firms in a speedy fashion, while rationalizing and minimizing the use of scarce judicial resources. The possibilities of hybrid restructuring are varied since there are multiple combinations of judicial action and informal restructuring that can yield positive results. The best-known tool for hybrid restructuring is *pre-packaged insolvency*, that is, the possibility of obtaining the swift confirmation of a reorganization plan that has been negotiated informally. In addition, the legal system may provide for a judicial stay of creditor actions that protect the restructuring negotiations. Finally, it is possible that the legal system offers both a stay and a confirmation of a restructuring agreement providing combined judicial measures to a restructuring procedure that nevertheless should be mainly based on a negotiation between the debtor and its creditors. These hybrid procedures, usually called "pre-insolvency procedures" or "preventive insolvency procedures" can achieve a superior result, but they also run the risk of becoming too similar to full formal judicial reorganizations, losing the advantage of swiftness and lack of procedural complexity.

The interaction of the different techniques in hybrid restructuring requires a specific way of elaborating the score. Effective pre-packaged insolvency may reach up to 75 percent of the score for this sub-indicator (15 points), whereas the possibility of a stay supporting informal restructuring negotiations would offer 25 percent of the score (5 points). The existence of a pre-insolvency procedure combines features of both a pre-pack and a supporting stay but does not entirely replace the function performed by these techniques separately, particularly the pre-packaged insolvency. A pre-insolvency procedure can reach, at best, 90 percent of the score awarded to hybrid restructuring (18 points). The three elements included in this sub-indicator can potentially co-exist, and their relation is complex, as they can offer complementary or alternative solutions for restructuring needs.

- *Pre-packaged insolvency*: Existence of a swift pre-packaged option for the approval of restructuring plans by the courts. As indicated before, this is the most important element in hybrid restructuring.

- *Stay to facilitate negotiations*: The courts can support the negotiations between debtors and creditors by granting a stay on creditor actions. This stay should be limited to the goal of supporting the restructuring negotiations, which can then result in an informal agreement or in an agreement that can be confirmed by the courts. This tool is less consequential than pre-packaged insolvency or hybrid procedures.

- *Hybrid restructuring procedures (pre-insolvency or preventive insolvency procedures)*: Hybrid restructuring procedures include limited judicial action, geared toward the restructuring of viable firms. These procedures are a relatively new development and are part of an emerging trend, developed as a response to long and cumbersome judicial reorganization processes and as a reaction to the problem of overloaded courts in recent crises. These procedures can achieve, in theory, a high degree of effectiveness by limiting court involvement to the instances that are necessary to achieve the restructuring (stay of creditor actions to avoid that negotiations are frustrated by individual debt enforcement started by non-cooperating creditors; and confirmation of restructuring plans supported by a majority of creditors to make those plans binding on the holdout creditors). These procedures can support large-scale restructuring by rationalizing the use of judicial resources. However, its design can make them similar to judicial reorganizations, in terms of procedural steps and intervention of judges and insolvency administrators. In such cases, these hybrid restructuring procedures become functional alternatives of judicial reorganization proceedings and can reintroduce the problems of procedural complexity and delay they were intended to address.

(3) Reorganization

Reorganization is a fundamental component of modern insolvency regimes, and vital in corporate debt crises. Reorganization allows firms with a high concern value to be preserved, which benefits creditors as well as employees. There are several features of reorganization proceedings that are particularly useful in times of crisis, and this sub-indicator is composed of elements that have proven to be especially impactful. These six elements have equal weight (1/6 each) towards the score that corresponds to this sub-indicator.

- *Debtor-in-possession management*: According to the international standard, there are various possible arrangements for the governance of reorganization proceedings. In a crisis situation, the option of leaving the debtor in possession produces better results, since it absorbs less institutional resources (insolvency professionals acting as managers or examiners in the reorganization) and represents a powerful incentive for the debtor, who may address problems at an early stage, therefore increasing the chances of success of the reorganization. Debtor-in-possession under the control of an insolvency professional acting as an examiner also achieves the objective of providing a more effective framework for a crisis.

- *Stay of creditor actions*. Reorganizations can only be successful if the going concern value of firms is preserved while the proceedings are ongoing. This is achieved thanks to a comprehensive stay of creditor actions, applicable to unsecured creditors, preferential creditors, and secured creditors. However, the stay needs to be balanced with adequate protection of secured creditors: the value of security interests must be protected, and secured creditors should be able to request that the stay is lifted when their collateral is compromised (for instance, where collateral is subject to depreciation) or is not necessary for the reorganization efforts. Another possibility is that the stay is automatically lifted after a certain period, thereby balancing the rights of secured creditors and those of the insolvency estate.

- *Treatment of executory contracts*. Reorganizations can achieve not only financial restructuring of firms, but also operational restructuring. For operational restructuring, it is essential that firms maintain the contractual relationships that are necessary for their continuous operation, and that firms can disclaim those contracts that are generating losses for the business. The parties to those contracts can only claim damages classified as ordinary unsecured claims.

- *Post-petition finance*. The continuation of business activities normally requires additional finance (post-petition finance, also known as “DIP finance”). The law should include rules to facilitate financing while providing safeguards for existing creditors. New finance needs to be awarded priority and be protected from potential challenges. In cases where there are no free assets, priority for post-petition financing (priming lien) can be provided, but the rights of existing secured creditors need to be safeguarded.

- *Mechanisms and safeguards for the approval of reorganization plans*. A successful reorganization is based on a reorganization plan that addresses the sources of enterprise distress. As a minimum, the law must include a mechanism to allow a majority of creditor bind minority creditors, avoiding holdouts. A more advanced mechanism for the approval of reorganization plans combines safeguards for the protection of minority creditors with increased possibilities of adopting a reorganization plan for the benefit of creditors, the debtor, and the economy more generally. Safeguards include voting by classes, and the possibility of approving plans even if not all classes are in favor of the plan ("cram-down"), provided that other safeguards apply, namely the *best interests of creditors' test* (no creditor receives less than it would in a liquidation) and the absolute priority rule (junior classes cannot receive any payment if the plan is approved against the vote of a senior dissenting class). These rules create a complex system of checks and balances to favor the approval of reorganization plans.

- *Simplified reorganization for micro and small enterprises*. Reorganizations tend to be complex judicial proceedings that can be lengthy and costly. This means that most micro and small enterprises rarely benefit from these proceedings. While it is less frequent that micro and SMEs have a high going concern value, there may be a percentage of distressed firms that would benefit from a low-cost reorganization procedure to achieve operational restructuring. This need may have increased in the context of the COVID-19 crisis, which has impacted smaller firms disproportionately. The key feature of simplified reorganization is that it offers a better chance to micro and small enterprises to reorganize by reducing the time and costs of the procedure.

(4) Liquidation

Crises often cause deep transformations of the corporate sector as companies that are unable to recover their viability will need to be liquidated. Liquidation can be spaced out over a longer period than reorganization, but this does not mean that liquidation is less important. Liquidation reallocates assets to more productive uses and can minimize the losses of creditors.

This sub-indicator includes elements that have proven their importance in achieving the economic goals of liquidation in the context of crises. Each of the elements accounts for 25 percent of the score.

- *Effectiveness and procedural simplicity*: One of the main problems of liquidation proceedings is that procedural complexity may delay the sale of the assets and the payment to creditors. There are some sources of complexity, such as issues in verifying claims and appeals against decisions within the insolvency process, which tend to delay liquidations. Decoupling the sale of assets from verification of claims and insolvency litigation helps in increasing the speed of liquidation proceedings. The procedure should be as speedy as possible, and one of the main factors to assess the involvement of the court: Ideally, the liquidator should take a leading role, and the court should minimize its intervention in the process.

- *Sale of businesses as a going concern*: To maximize creditor recovery, the liquidation framework should offer the possibility of selling the enterprise as a going concern. This requires a short stay of creditor actions (including secured creditors' actions) to give an opportunity to the insolvency representative of selling the whole business. If the sale of the whole business is not successful, it should still be possible to sell certain productive units (the last resort is the piecemeal sale of assets, which typically results in higher losses for creditors). If the reorganization proceeding also offers the possibility to sell the business as a going concern, this is also included in the indicator. The last possibility is that the law allows a general security interest over enterprise assets, which gives the secured creditor the possibility of selling the business as a going concern, although that would occur outside insolvency proceedings.

- *Sale of collateral*: Liquidation should not interfere with the sale of collateral subject to security interests. As indicated before, the law can include a short stay to facilitate a sale of the business as a going concern, or the sale of productive units, but after that brief period expires, it should be possible for secured creditors to sell assets subject to security interests without further delay, while ensuring adequate protection for the interests of the insolvency estate (namely, the interests of other creditors and of the debtor).

- T*echnology and flexibility in liquidation*: This element refers to the liquidation of the assets included in the insolvency estate. Recent experience has shown that using digital technology produces much more efficient results in the sale of assets, both outside and within insolvency processes. Technology can improve both the advertising of judicial sales, which can be done through dedicated portals, and the auction mechanism itself. So-called e-auctions allow for wider participation of bidders and reduce the risk of fraud and collusion among participants. The flexibility in the methods used for the sale of assets is also assessed: The possibility of organizing private sales, rather than observing the formalities of auction, is recognized, as well as the possibility of attributing ownership of assets to creditors or allowing credit-bids by creditors.

(5) Institutional Framework

The institutional framework for insolvency impacts the functioning of the insolvency system, and it has an indirect influence on restructuring activities. Assessing the quality of the institutional framework of the insolvency system is a complex task; and this indicator only aims at assessing aspects that may be particularly useful in the event of a corporate debt crisis, and which correspond with positive features of the institutions in charge of applying the insolvency regime. This sub-indicator consists of four elements: the second and third elements are each assigned a weight of 25 percent of the score. The role of the courts is given more importance (30 percent of the score), whereas support professionals represent 20 percent of the score.

- *Specialized courts*: The performance of courts increases substantially when the judges have specialized knowledge of the applicable legal regime. Specialized insolvency courts may only be a reasonable option in large countries, where the volume of cases justifies their creation. In other countries, the best option is to have judges specialize in commercial cases, which provide a solid foundation for a specialization in insolvency law, or to combine specialized insolvency courts or benches in the most important commercial districts with courts with broader jurisdiction in other districts. The assessment also integrates the flexibility of the system in creating and filling new positions for judges within an abbreviated period of time.

- *Use of technology at the courts*: The other factor that improves functioning of the courts is the introduction of technology for insolvency cases, particularly electronic case management, but also to conduct other steps of the process, such as e-filing, e-notices, the collection of data, publishing information relative to insolvency cases, and the organization of court hearings and the conduct of creditor votes.

- *Regulation of the insolvency profession*: Insolvency administrators are essential for the conduct of liquidation proceedings, and they can also play an important supporting role in reorganization proceedings. A regulation of insolvency professionals according to the requirements of the international standards contributes to the optimization of the capacity of the insolvency system, by ensuring that insolvency administrators have the proper qualifications and conduct their activities with integrity. A capable cadre of insolvency professionals allows the judiciary to concentrate on the resolution of dispute and the oversight of the insolvency process, while many of the insolvency operations are conducted directly by insolvency administrators.

- *Support professionals*. Insolvency activities are conducted more effectively where there is an ecosystem of professionals who can support various aspects of insolvency process. There is a need for regulation, qualifications, supervision, and general availability of professionals such as accountants, lawyers, and appraisers.

Annex Table 3.1. Indicator for Crisis Preparedness of Insolvency Systems

Country	Enhancements to Out-of-Court Debt Restructuring	Hybrid Restructuring	Reorganization	Liquidation	Institutional Framework	Total
Argentina	9.0	11.0	9.1	9.0	11.0	49.1
Australia	14.5	15.0	10.1	15.0	16.0	70.6
Austria	9.0	18.0	14.1	12.0	14.0	67.1
Bangladesh	5.0	7.0	2.5	5.0	7.0	26.5
Belgium	13.0	10.0	12.6	14.0	12.0	61.6
Brazil	8.0	14.0	14.0	12.0	9.0	57.0
Cambodia	3.0	0.0	10.0	7.5	4.5	25.0
Cameroon	5.5	9.0	8.5	6.5	5.0	34.5
Canada	10.5	15.0	14.0	16.0	17.0	72.5
Chile	7.0	10.0	10.0	9.5	15.5	52.0
China	9.5	13.5	13.0	9.0	13.5	58.5
Colombia	14.0	15.0	14.9	12.5	13.5	69.9
Congo, Rep. of	6.0	9.0	8.5	6.5	4.0	34.0
Egypt	9.0	9.0	8.6	8.5	7.0	42.1
France	15.5	18.0	12.1	12.5	17.0	75.1
Germany	14.5	18.0	16.3	13.5	14.0	76.3
Ghana	6.0	7.0	4.0	8.0	7.5	32.5
Haiti	4.5	0.0	1.0	2.0	3.5	11.0
Honduras	7.0	0.0	7.8	8.0	4.0	26.8
India	11.5	7.0	8.3	13.5	11.5	51.8
Indonesia	7.5	9.0	8.3	8.5	9.5	42.8
Iran	5.0	0.0	1.0	3.0	5.0	14.0
Ireland	10.0	14.0	14.1	14.5	12.5	65.1
Israel	7.0	14.0	11.3	10.0	12.5	54.8
Italy	11.0	15.0	13.6	13.0	13.0	65.6
Japan	17.0	10.0	14.5	15.0	15.0	71.5
Jordan	9.0	0.0	10.1	6.0	7.5	32.6
Kenya	7.5	11.0	8.5	9.0	9.0	45.0
Korea	19.0	16.0	20.0	13.0	16.0	84.0
Kyrgyz Rep.	11.0	10.0	6.3	9.0	7.5	43.8
Malaysia	18.0	15.0	2.5	15.0	12.5	63.0
Mexico	6.0	8.0	10.1	8.5	8.5	41.1
Myanmar	3.0	7.0	11.8	6.5	4.5	32.8
The Netherlands	6.5	18.0	12.0	13.5	12.0	62.0
New Zealand	12.5	12.0	5.8	13.0	13.0	56.3
Nicaragua	5.0	0.0	2.0	6.5	5.0	18.5
Nigeria	6.5	4.0	2.5	8.5	4.0	25.5
Norway	11.0	0.0	11.6	13.5	15.0	51.1
Pakistan	4.5	7.0	10.3	11.0	9.0	41.8
Papua New Guinea	5.0	9.0	5.0	8.0	5.0	32.0
Philippines	14.5	12.0	14.5	8.0	10.0	59.0
Poland	9.5	13.0	9.5	12.5	10.0	54.5
Russia	6.5	2.0	13.5	12.5	13.5	48.0
Rwanda	5.0	11.5	11.6	9.5	10.0	47.6
Saudi Arabia	3.5	13.0	8.8	3.0	14.0	42.3
Singapore	12.5	16.0	14.3	13.0	18.0	73.8
South Africa	8.5	9.0	9.6	10.0	11.5	48.6
Spain	12.5	16.0	11.3	14.0	13.5	67.3
Sri Lanka	5.0	7.0	4.5	11.5	7.0	35.0
Sweden	11.0	0.0	11.5	16.5	13.0	52.0
Switzerland	10.0	10.0	11.8	8.5	12.0	52.3
Tajikistan	4.5	0.0	6.5	6.5	4.5	22.0
Tanzania	5.0	7.0	5.0	8.0	6.0	31.0
Thailand	10.0	5.0	15.2	10.0	13.5	53.7
Turkey	16.5	0.0	6.5	9.0	12.5	44.5
United Kingdom	17.5	18.0	8.0	17.0	18.5	79.0
United States	11.0	13.0	13.0	6.0	14.0	57.0
United Arab Emirates	10.5	15.0	20.0	18.0	18.0	81.5
Venezuela	4.5	0.0	2.0	6.0	5.0	17.5
Vietnam	8.0	0.0	5.0	5.0	5.0	23.0

Annex 4. Country Case Studies

Annex Table 4.1. Out-of-Court Workouts

Country (crisis onset)	Source	Monitoring, coordination, and arbitration mechanism	Penalities/ incentives	Fresh funds
Republic of Korea (1997)	Lieberman and others (2005)	A steering committee was formed, consisting of 10 representatives from participating financial institutions responsible for implementing, amending, and terminating the corporate restructuring agreement. The Corporate Restructuring Coordination Committee (CRCC) was created to act as an arbitration committee. CRCC was responsible for assessing the viability of corporate candidates for restructuring, arbitrating differences among creditors, enforcing its decisions, and, when necessary, modifying workout plans proposed by participating creditors. Within one month of an application for arbitration from a presiding bank, CRCC provided a written opinion to all the debtor's financial institution creditors as well as the relevant regulatory agencies. Council of Creditor Financial Institutions. Six lead banks were nominated to take charge of corporate restructuring for the first- and second-tier corporate groups. Workout units focusing on corporate restructuring were created within all commercial banks. The Council of Creditor Financial Institutions, organized by either the nominated lead bank or the bank holding the largest amount of debt for a company, was formed to allow creditor financial institutions to participate in the restructuring process. Each council was convened within 10 days of a request from any financial institution. Council decisions required approval by financial institution creditors holding at least 75 percent of the financial institution credits. A presiding bank could apply to CRCC for arbitration at any point in the process to clarify an issue or after failing three times to get voluntary agreement among creditors on a proposed workout.	If a signatory to the agreement failed to comply with an approved workout agreement or an arbitration decision, CRCC could fine this signatory up to 30 percent of the credit amount in question or up to 50 percent of the cost of noncompliance. The council would decide the criteria for distributing the fine among the other financial institutions.	Special-Purpose Vehicles, Restructuring Funds. establish a series of restructuring funds (three debt and one equity fund), managed by international, accredited fund managers. The Korean Development Bank was the primary investor. The government established a real estate investment trust to allow companies to sell and leas back, with a repurchase option.

(continued)

Country (crisis onset)	Source	Monitoring, coordination, and arbitration mechanism	Penalities/ incentives	Fresh funds
Turkey (2001)	Lieberman and others (2005)	Once a workout is agreed to, the creditors and the debtor (the company) sign an agreement stipulating the terms and conditions of the workout, reporting requirements of the debtor, and events that would trigger a review of the agreement. The creditors also sign an inter-creditor agreement specific to the particular case. At the heart of the Istanbul approach is a framework agreement (intercreditor agreement) approved by Banking Regulation and Supervision Authority (BRSA) and signed in June 2002 by 34 commercial banks, nonbank financial intermediaries, as well as intervened banks and state banks. First, creditors must signal that they are willing to pursue a non-judicial resolution of a company's financial difficulties rather than resort to a formal process of seizing collateral or an insolvency procedure. Second, the out-of-court process is case-by-case—that is, each large company entering the process is addressed by a separate creditors committee. The committee is directed by a lead bank holding the largest share of the credits or is appointed by the other creditors holding 75 percent of the credits by value. While the intercreditor agreement is signed by banks and nonbank financial institutions, other creditors such as trade creditors may join the workout process through the creditors committee. Third, the creditors committee has a maximum of 90 days plus three 30-day extension periods in which to reach a resolution and agree to a workout with the debtor. If there is no resolution and less than 55 percent of creditors agree to a proposed workout plan, then the case is dropped from consideration. Fourth, if between 55 and 75 percent of creditors, by value, approve, the plan is brought to an arbitration panel, which has the authority to approve it. Minority creditors are then "crammed down" on. The arbitration panel can also opine on any individual matter that the creditors committee brings to its attention. Fifth, the creditors committee commissions an independent due diligence review of each distressed company's long-term viability, drawing on comprehensive information made available by and shared among all the likely parties to any workout.		The Istanbul approach contains provisions allowing companies to supplement their borrowing in case of a liquidity shortfall or pressing maintenance needs. New money can be provided on a pro rata basis by all existing lenders, by specific lenders with priority arrangements, or by release of the proceeds of asset disposals subject to priority considerations. (Other principles underlying this critical period of financial support include recognizing the seniority of existing claims and sharing losses on an equal basis between creditors in the same category.)

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Country (crisis onset)	Source	Monitoring, coordination, and arbitration mechanism	Penalities/ incentives	Fresh funds
Mexico (1994)	Lieberman and others (2005)	In December 1995, the Mexican government created an institutional structure known as Unidad Coordinadora del Acuerdo Bancario Empresarial (UCABE) to orchestrate the voluntary restructuring of 30–40 of the largest debtors. The Mexican Banking Commission and FOBAPROA (a bank support fund, in effect an asset management agency), responsible for purchasing distressed assets from Mexican banks, also helped to organize the banks so that they could deal with their large cases using a unified approach. UCABE was a mediator in large cases of corporate restructuring, targeting companies with \$150–\$500 million of bank debt. Holding some \$8 billion in debt, these companies represented approximately 8 percent of total outstanding loans in the Mexican banking system at the end of 1995. UCABE sought to preserve the viability of these firms, sustain employment, and promote economic recovery. It worked out potentially viable companies—defined as those having a positive cash flow, a significant base of employment, and a competitive cost structure as well as being a leader or an important player in their market niche. They agreed to follow specific rules of conduct regarding selection of a lead negotiator bank and agreed to reach decisions by majority rule. Seniority of secured creditors was recognized. Provisions were made for the preferential treatment of new voluntary loans together with the subordination of existing guarantees. banks were allowed to enter into debt swaps among themselves and to use debt capitalization and other financial engineering techniques to reduce the overall debt burden and facilitate exit from the credit. Shareholders and debtor companies also followed rules regarding the provision of new capital, the dilution of ownership rights, and the strengthening or replacement of company management in order to facilitate reaching a final agreement. Additionally, there was a Co-ordinating Unit for Corporate Loans. The objective of this unit was to foster the restructuring of syndicated corporate loans. The unit acts as a facilitator in bringing back into negotiation with banks all those firms that voluntarily submitted to mediation. 31 loans have been restructured, for a total value of \$2.6 billion.		

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Country (crisis onset)	Source	Monitoring, coordination, and arbitration mechanism	Penalities/ incentives	Fresh funds
Poland (1992)	Lieberman and others (2005)	In March 1993, with the assistance of the World Bank, the Act on Financial Restructuring of Enterprises and Banks was adopted to supplement and accelerate court-based bankruptcy and liquidation options. The procedure adopted by this act remains unique in Central Europe, as it designated the newly created commercial banks, many still under government control, as the principal agents for designing and implementing enterprise restructuring. The bank conciliation procedure, as the restructuring process became known, was formalized by the Law on Financial Restructuring of Enterprises and Banks, in effect from 1993 to 1996. This new law provided the banks with three new tools, or instruments, for use in the workout process: (1) bank-led conciliation agreements, (2) the public sale of nonperforming loans on the secondary market, and (3) debt-for-equity swaps. Bank-led conciliation agreements also provided for debt-for-equity swaps as well as for the rescheduling or write-off of debts and the extension of new credit. The bank conciliation procedure was designed as a temporary process to bypass the existing judicial debt workout procedure that dated from 1934. Although significantly amended in 1990, it remained extremely inflexible.		
Malaysia (1997)	Mako (2005)	Malaysia established the Corporate Debt Restructuring Committee (CDRC) in August 1998 with secretarial support from Bank Negara Malaysia to provide a forum and framework for creditors and debtors to reach voluntary agreement. Either the debtor or its creditors could initiate a CDRC case. Eligibility for CDRC status was eventually raised to any case involving at least RM 100 million in debt and five or more financial institution creditors. CDRC acted as an adviser and mediator between debtors and their creditors. CDRC also provided for a creditors committee representing at least 75 percent of credits (later reduced to 50 percent) for each company; full information sharing; appointment by the creditors committee of independent consultants to review or develop workout options; and 100 percent creditor approval for CDRC cases. Such a high threshold of creditor approval was consistent with the view of CDRC as a forum for facilitating purely voluntary agreements. But lower thresholds of	On at least some occasions, dissenting creditors were bought out by Danaharta. In addition, Bank Negara Malaysia reportedly used its influence on occasion to persuade holdout banks to accept workout plans supported by a majority of creditors.	

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Country (crisis onset)	Source	Monitoring, coordination, and arbi-tration mechanism	Penalities/ incentives	Fresh funds
		creditor approval in other types of cases—for example, 75 percent for court-supervised reorganizations and 50 percent for workouts managed by the Danaharta public asset management company—may have given creditors an incentive to reach agreement in CDRC proceedings.		
Thailand (1997)	Mako (2005)	The Corporate Debt Restructuring Advisory Committee (CDRAC) was formed within the Bank of Thailand in June 1998. CDRAC, which was chaired by the Bank of Thailand's governor, included representatives of creditor and debtor interest groups. CDRAC members identified priority cases, developed a set of principles and a timeline to guide voluntary workouts (the so-called Bangkok rules), attempted to facilitate and monitor restructuring negotiations, and attempted to resolve legal and regulatory impediments to corporate restructuring. By end-1998, however, only about $3.5 billion in CDRAC case debt had been restructured. This prompted Bank of Thailand to play a more active role in monitoring and to promote a more contractual approach. Bank of Thailand promulgated two model civil contracts: a debtor-creditor agreement to govern out-of-court agreements and an inter-creditor agreement to resolve differences among creditors. Signatories to the debtor-creditor agreement accepted a six- to eight-month schedule for developing and approving a corporate restructuring plan, sharing information, designating a lead creditor or steering committee, and setting thresholds for creditor approval. Approval by 75 percent of creditors was necessary to ratify a restructuring plan—the same threshold as for a court-supervised reorganization. In cases where only 50–75 percent of creditors supported the plan, it could be amended and resubmitted for another vote. In cases where creditors could not agree on a plan, the debtor-creditor agreement provided for cases to be forwarded to the courts for resolution under existing creditor rights and insolvency law. In cases of inter-creditor	The two agreements empowered the Bank of Thailand to levy fines and reprimands to enforce creditor compliance, including requirements for creditors to file court petitions following a breakdown of the workout process.	

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Country (crisis onset)	Source	Monitoring, coordination, and arbitration mechanism	Penalities/ incentives	Fresh funds
		differences, the inter-creditor agreement provided for a three-person panel to arbitrate differences, which included an easy escape clause for concerned creditors.		
Indonesia (1997)	Mako (2005)	JITF's initial focus was on advice, facilitation, and mediation and on the identification and removal of tax, legal, and regulatory impediments to corporate restructuring. The JITF was originally designed as a voluntary program under the assumption that a new bankruptcy law would provide a remedy in cases where the parties could not negotiate a workout agreement in good faith. By end-1999, however, JITF debt workout agreements reached only $1.3 billion. Hence, in April 2000, JITF was given some ability to orchestrate regulatory relief or sanctions and to impose a time-bound mediation process. A debtor and its creditors were given an opportunity to agree on a mediation schedule. If the parties failed to agree, JITF would set a schedule for monitoring progress and mediating disputes. If it determined that a party was behaving in an uncooperative manner or that progress could not be made, JITF could terminate mediation and file a report with the government's Financial Sector Policy Committee. In turn, the committee could refer an uncooperative debtor to the attorney general for initiation of bankruptcy proceedings—an option that had not been used as of mid-2001.		
United States (1980s, 2008)	Gibson (2012)	At the end of the 1980s, when the risk of a wave of defaults and bankruptcies—then mainly of leveraged buyouts and other highly leveraged transactions—was imminent, a "privatization of bankruptcy" took place. Investors in overleveraged companies increasingly found ways to bypass the expensive Chapter 11 process and pursue less costly and more efficient ways to restructure their debt out of court. The vast majority of troubled companies first sought to restructure their debt outside of bankruptcy. The finance practitioners came up with legal and financial innovations, designed in response to		

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Country (crisis onset)	Source	Monitoring, coordination, and arbitration mechanism	Penalities/ incentives	Fresh funds
		the perceived deficiencies of the court process, that significantly reduced the costs of restructuring debt out of court. For instance, the "3(a)(9) exchange offer"—named after a section of the 1933 Securities Act—that was pioneered by Drexel Burnham Lambert's Michael Milken and provided an efficient and speedy way to restructure large tranches of publicly traded debt. Such offers proved to be remarkably cost-effective in "encouraging" bondholders to voluntarily return their bonds to the company in exchange for bonds of lesser value or new shares in the company. During the GFC, US bankruptcy courts and the debt restructuring industry were faced with the largest wave of corporate defaults and bankruptcies in history. In the two-year period of 2008–09, $1.8 trillion worth of public company assets entered Chapter 11 bankruptcy protection—almost 20 times more than during the prior two years. Despite longstanding criticism of Chapter 11 as too costly, slow, or inequitable, the GFC experience suggested that the legal process—including the people who advise, manage, and finance distressed companies—had evolved and adapted to deal with large and complex cases. New legal strategies, new ways of financing distressed companies, and increases in the experience and sophistication of the participants had helped make the US restructuring process much more efficient than 20 years before. During the GFC, legal innovations have blurred the line separating Chapter 11 from out-of-court restructuring. Recognizing that both methods of restructuring have certain benefits, distressed companies increasingly filed for "prepackaged" or "pre-negotiated" Chapter 11, which combined the most attractive features of both methods. As a result, in a relatively short time, much of the corporate debt that defaulted during the crisis was managed down, "mass liquidations" were averted, and corporate profits, balance sheets, and values rebounded with remarkable speed.		

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Country (crisis onset)	Source	Monitoring, coordination, and arbitration mechanism	Penalities/ incentives	Fresh funds
EU (2012)	Bergthaler and others (2015)	Portugal (2012) adopted a formal out-of-court restructuring regime tailored to SMEs through mediation by a government agency. This formal regime featured a creditor standstill and required tax and social security authorities to participate in the negotiations. There was no majority voting and the agreement bound only participating creditors. Spain (2013) introduced a time-bound, out-of-court agreement on payments tailored for micro and small enterprises. In 2015, this mechanism was reformed under which the chamber of commerce or a mediator appointed by the registrar or a notary takes the lead in negotiating a settlement, and except for public creditors, a stay on enforcement actions was in effect for three months. Payments could not be postponed for more than 10 years, while debts could be totally written down or converted into equity. A 60 percent or 75 percent majority of creditors (in value) was required to approve and extend the plan to dissenting or nonparticipating creditors (60 percent for stays up to five years and 75 percent for other operations). These majorities were respectively increased up to 65 percent and 80 percent for secured creditors (just for the part of the credit covered by the guarantee). Italy (2012) established an out-of-court procedure for SMEs where an independent expert appointed by the debtor could facilitate an agreement, but which would bind only participating creditors. Greece (2014) adopted an out-of-court framework for SMEs that enabled the reduction of debt for SMEs according to economic indicators, as well as a corresponding tax credit for creditors and a restructuring of public creditors' claims according to installment schemes for public claims (with an extra 20 percent benefit). In Ireland, the resolution of SME NPLs was guided by lender-specific workout targets, with the two main SME lenders expected to have completed the workout plans of almost all SME loans by end-2014.		
Turkey (2018)	Authors	The out-of-court restructuring mechanism was reinstated in 2018 as a response to corporate debt problems. The Regulation on the Restructuring of Debts in the Financial Sector contemplated a master restructuring agreement, or framework	The restructuring ends if financial creditors representing 25 percent of the claims take legal	The advance of new money is contemplated in the framework agreement: it requires the

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Country (crisis onset)	Source	Monitoring, coordination, and arbitration mechanism	Penalities/ incentives	Fresh funds
		agreement. The framework agreement sets the conditions and procedure to achieve enterprise workouts. The framework agreement is signed by the main Turkish credit institutions and is published through the Bank Association of Turkey. Foreign credit institutions may sign the framework agreement voluntarily and participate in specific restructurings. The framework agreement includes clauses that are aligned with international standards in restructuring practice: a standstill to avoid that creditors take enforcement action and prejudice the interests of other creditors; the establishment of a committee of the main financial creditors, with the bank having the largest exposure taking the role of lead creditor; and a fixed term for the negotiation of a restructuring agreement (typically, 90 days, but extendable for another 90 days). As creditors are bound by the master restructuring agreement, it is possible to reach certain workouts without unanimity. The master restructuring agreement indicates that a majority of two-thirds of the claims is sufficient to approve a workout, but this majority requirement increases to 90 percent if the workout includes measures such as an interest rate reduction below 75 percent of market levels. However, writing down the principal, converting debts into equity or collecting debt in kind requires unanimity. The restructuring can cover not just one company, but also a whole group of companies. Disputes are settled by an arbitration committee. The agreement for large corporate debtors (financial debt more than 100 million TRY) is complemented by a version of the agreement designed for SMEs. In the small-scale version, the restructuring options are limited: there is no possibility of a debt/equity conversion, or a write down of principal. There are restructuring parameters in terms of grace periods and interest rates.	action against the debtor. The restructuring agreements have been connected with forbearance measures adopted by the bank supervisor.	support of at least two banks representing 90 percent of claims. There is no provision of new funds in the small-scale restructuring agreement.

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Country (crisis onset)	Source	Monitoring, coordination, and arbitration mechanism	Penalities/ incentives	Fresh funds
Malaysia (2008, preventive measure)	Authors	The Corporate Debt Restructuring Committee (CDRC) set up by the Malaysian government, provides a forum for restructuring, under the auspices of Bank Negara Malaysia. CDRC was established during the Asian financial crisis and operated until 2000, but it was re-established as a preventive measure during the GFC and has remained active. The CDRC does not have any mechanisms to bind debtors and creditors, but it provides a set of procedural guidelines for the restructuring cases. A code of conduct, last modified in 2020, sets the expectations on the behavior of debtors and creditors during restructuring negotiations, in line with best international practices. The Committee acts as a mediator in assisting the debtor and the creditors in reaching a sustainable restructuring agreement. Decisions affecting the restructuring procedure must be taken by creditors representing at least 75 percent of each creditor class. The companies that seek restructuring must met some basic criteria: 1) aggregate indebtedness of RM10 million or more 2) at least 2 financial creditors 3) not in receivership or liquidation 4) experiencing difficulties in servicing their debt obligations but may not have already defaulted 5) Alternatively, the company is listed in the stock market. A creditors' committee is formed for each restructuring case. CDRC conducts a viability assessment of the debtor. All creditors observe a standstill, while the debtor prepares a workout proposal, within a 60-day period. The contents of the restructuring agreement are flexible, and the agreement must be accepted by a 75 percent majority in each creditor class.	CDRC can warn participants for noncompliance and dismiss the case if the debtor does not comply with the procedure.	New money provided to sustain the viability of the business shall be accorded a senior ranking status.

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Country (crisis onset)	Source	Monitoring, coordination, and arbitration mechanism	Penalities/ incentives	Fresh funds
Republic of Korea (2001, preventive measure)	Authors	The Corporate Promotion Restructuring Act (CRPA) was first enacted in 2001 to support corporate restructuring in the wake of the Asian financial crisis. The temporary legislation has been extended with amendments several times, and it may even become a permanent feature of the Korean system. The law codifies the workout practices and includes useful guidelines for negotiation and for the prevention of holdout behavior by creditors. The CRPA workout applies to financial creditors that hold claims against companies. There are two separate tracks, for large companies and for SMEs. The main or lead bank of a corporate debtor assesses the credit risk: if the debtor is assessed as being in risk of failure, it may ask for management by the lead bank or joint management by a committee of creditors. In joint management, the lead creditor must call a meeting of the committee of financial creditors, and work on a restructuring plan. The committee votes and decides on taking the case and on a standstill. Typically, an expert conducts the analysis of the business and assists the lead creditor in formulating a restructuring plan. The plan is adopted by creditors holding three-quarters of the financial claims. If a single creditor holds that percentage, then it is also required that two-fifth of the number of financial creditors agree with the plan. Once the plan is approved by the creditors, the debtor and the creditors sign a memorandum of understanding for the implementation of the plan. Disputes during the workout are submitted to mediation of another committee of financial creditors.	A creditor objecting to restructuring measures such as a debt/equity swap, reduction of interest or principal, or extension of new credit can ask the other creditors to acquire its claims, calculated at the value to be recovered in a liquidation.	New credit can be extended. Objecting creditors can ask other creditors to acquire their claims. Creditors may have to pay penalties if they don't provide new credit after a majority decision.
Japan (2009, 2013, preventative measure)	Authors	The Act on Strengthening Industrial Competitiveness (ASIC 2013) helps the coordination between the debtors and their financial creditors, with the support of independent experts (Japanese Association of Turnaround Professionals). The Regional Economy Vitalization Company was established in 2009 and is specialized in providing support and facilitating workouts of companies in certain regions, including financing for the restructuring.	There are tax incentives for debtors and creditors.	REVIC provides financing for restructuring companies.

Annex Table 4.2. Asset Management Companies (AMCs)

Country (crisis onset)	Source	Mandate	Strengths/weaknesses	Outcome
Republic of Korea (1997)	Calomiris and others (2003)	The Korean government established an asset management company called Korean Asset Management Corporation (KAMCO) to improve banks' condition and accelerate debt resolution. During 1997 and 1998, KAMCO acquired thousands of individual assets, mainly operating and closed factories and commercial real estate. Total loans acquired amounted to KRW110.1 trillion, with NPLs of KRW39.8 trillion. These loans represented 14.7 percent of bank loans. Assets were initially acquired at above-market prices, but eventually at approximate market prices. On average, the transfer price had a 64% discount from face value.	The reasons for KAMCO's relative success versus FOBAPROA and IBRA can be summarized as follows: (1) except in the case of Daewoo, KAMCO played a smaller role in corporate restructuring (Scott 2002 and KAMCO's Annual Report 2002), (2) the Korean judicial framework offers better protection for creditors and better enforcement capacity than that of Mexico in the mid-1990s, and (3) the real estate assets transferred to KAMCO were easier to liquidate because they were less subject to political interference.	Despite a slow start, unlike FOBAPROA, KAMCO's disposition was rapid. Within roughly two years, KAMCO had resolved KRW64.6 trillion of NPLs, which represented 60 percent of its total acquisitions, and had recovered KRW30.3 trillion, which represented 76 percent of the total amount spent to purchase the NPLs. More than 70 percent of the remaining KRW45.5 trillion loans were related to Daewoo which required more time-consuming methods for liquidation.
Mexico (1994)	Calomiris and others (2003)	Mexico's FOBAPROA was originally created in 1990 as a deposit guarantee agency. FOBAPROA's mandate was broadened as a result of the banking crisis in 1996 beyond deposit insurance responsibilities to make it a bank rescue and intervention agency as well as an asset management company. FOBAPROA purchased loans at book value (not market value) from banks to recapitalize them in exchange for 10-year nontransferable zero-coupon government bonds. Nonperforming assets were purchased both from intervened banks and from banks remaining in operation. Interest payments, based on domestic treasury rates, were payable at maturity. As a condition for participating in this program, bank shareholders injected one peso of new capital into the bank for every two pesos of bad loans to the FOBAPROA trust. Banks were also required to set aside reserves valued at around 25 percent of the total debt transferred, but they could not profit from the transaction	Mexico's supervisory authority lacked credibility and enforcement capacity to encourage financial institutions to clean up the remainder of their balance sheets, and operational restructuring of financial institutions was limited as management was left unchanged. The VVA's activities were hindered by a number of obstacles. First, initially the government restricted financial institutions including the VVA from foreclosing on assets – that is, the VVA could not directly sell the loans acquired by FOBAPROA through the Loan Purchase program, because the selling bank remained the loan's legal owner and kept a 25 percent stake in the recovery. Second, the sheer size of impaired assets made it difficult to restructure debt and sell assets. Third, the large scale and the type of assets	The Loan Purchase and Recapitalization Program did achieve an improvement in the liquidity and capital adequacy ratios of most banks, but it failed to achieve its main objectives of restoring bank stability and fostering corporate restructuring. The scope of the program was not sufficient for the system's recapitalization needs, necessitating the inclusion of additional resources. Seven out of the 12 banks that participated in this program continued to require additional reserves and capital. Also, banks' returns on assets, while improving somewhat after a sharp deterioration in 1996, remained at a low level despite the removal of a massive amount of bad loans from the system. Past due loans continued to increase in intervened

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Country (crisis onset)	Source	Mandate	Strengths/weaknesses	Outcome
		because the bonds were not tradable. In late 1996, the Valuacion y Venta de Activos (VVA) was created as a supporting agent in the sale of FOBAPROA's assets. In June 1997, the resolution activities of the VVA and FOBAPROA were merged into a single agency, the Direccion de Activos Corporativos (DAC), which became the sole agency overseeing corporate asset recovery. In its new function, DAC oversaw and coordinated the corporate debt resolution process of FOBAPROA's loan portfolio. The sale of impaired assets was mainly through cash collections from auctions.	transferred to FOBAPROA, that is, corporate and politically connected loans, were difficult to resolve for a government-agency susceptible to political pressure. The asset transfer was a non-transparent and repeated process that led to perceptions that some banks received more favorable treatment than others. Fourth, VVA's due diligence process was complex and lengthy, as the documentation of loans remained with the banks that administered or held the loans. Fifth, the responsibilities of the VVA and FOBAPROA were poorly defined, complicating the relationship between the two agencies. DAC experienced problems in selling off assets for some of the same problems as faced by its predecessor. The absence of a secondary market made cash collections from auctions a difficult approach, politically connected loans were difficult to resolve for a government agency susceptible to political pressure, and substantial deficiencies in the bankruptcy and foreclosure code that limited DAC's ability to bring debtors to the negotiation table.	banks even as bad loans were taken off banks' balance sheets. Only when the government sold the majority of institutions to foreigners after 1996 did the financial condition of banks improve. The FOBAPROA program also failed at asset resolution. In total, DAC oversaw the recovery of US$16 billion assets, representing 28,000 loans from more than 4,000 companies. By 2003, only 0.5 percent of the total assets transferred under the FOBAPROA program had been sold, with an average asset recovery rate of only 15 percent (IMF 2001). Finally, the FOBAPROA program did not have the desired result of reinvigorating the banking sector. Credit to the private sector fell considerably over the period 1995 to 1998. When we separate out FOBAPROA notes issued by the government, credit to the private sector declines from about US$60 billion at end-1996 to around US$25 billion at end-1998 (McQuerry 1999). As a share of GDP, private credit dropped from 39 percent at end-1994 to 19 percent at end-1998, only to reduce further to 11 percent at end-2001.

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Country (crisis onset)	Source	Mandate	Strengths/weaknesses	Outcome
				Overall, the bailout of the banking sector in Mexico through a combination of loan purchases and recapitalizations of banks failed to improve the sector's financial viability or its financial intermediation capacity. The transfer of more than $30 billion in bad loan portfolios off bank balance sheets had little effect in addressing fundamental problems in the banking sector. Past due loans remained very high, and bank capitalization levels were still considered inadequate after four years of bank rescue programs.
Malaysia (1997)	Zainal and Putih (2005)	Danaharta was established in June 1998 with two objectives: to remove nonperforming loans from the banking system and to maximize the value recovered from the nonperforming loans. To ensure that Danaharta could perform its task effectively, efficiently, and economically, the parliament of Malaysia approved the Danaharta Act, which gave Danaharta special powers to deal with nonperforming loans. Meanwhile, Bank Negara Malaysia began developing a deposit insurance scheme for the banking system. Another key measure was to recapitalize the banking sector, especially to assist banks whose capital base had been eroded by losses. Danamodal Nasional Berhad was set up to undertake this task. A bank in trouble because of huge amount of bad loans in its books would see Danaharta to sell its nonperforming loans. If the bank was still in a bad financial position and the	Under the Danaharta Act, Danaharta was able to acquire nonperforming loans from banks via statutory vesting, which sped up the transfer process. Danaharta completed its primary acquisition of loans by June 1999, six months ahead of schedule. Danaharta also had the ability to foreclose on property collateral without going through the court process, which significantly reduced the time and costs involved in recovering nonperforming loans. Another special power was the ability to appoint a special administrator over a company that could not settle its debts with Danaharta. Throughout his appointment, the special administrator was given full control and responsibility over the assets and affairs of the company. He was required to prepare a	

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Country (crisis onset)	Source	Mandate	Strengths/weaknesses	Outcome
		shareholders could not recapitalize, the bank would seek financial assistance from Danamodal, at a cost. Effectively, new money would be injected into the bank, diluting the original shareholders. This meant that Danamodal could facilitate the consolidation of the sector by selling its stake to a stronger bank and thereby fostering mergers. Banks were required to sell "excess" nonperforming loans to Danaharta. Subsequently, the Danamodal agency would provide bank recapitalization and promote financial sector restructuring, as necessary. Meanwhile, CDRC acted as an informal mediator, facilitating dialogue between borrowers and their creditors to achieve voluntary restructuring schemes. If CDRC could achieve this, then nonperforming loans would be resolved voluntarily. If not, Danaharta would be asked to take over the bad loans. The three entities were coordinated via a steering committee chaired by the governor of the central bank, Bank Negara Malaysia.	workout proposal outlining how the company would pay off its creditors. This could include securing a white knight, or new investor, to take over the business, selling assets, changing management, or undertaking operational restructuring to unlock values and offload liabilities. Danaharta purchased loans with face values of M$5 million or more at discounted prices based on the value of the underlying collateral. In the case of unsecured loans, Danaharta paid the bank a price equivalent to 10 percent of the loan amount outstanding. There was no compulsory acquisition of loans. All transactions were conducted at arm's length on a "willing buyer, willing seller" basis. To encourage banks to sell their nonperforming loans, Danaharta agreed to a profit-sharing scheme for recovering nonperforming loans over and above Danaharta's purchase and holding costs with the selling bank (80 percent for the bank; 20 percent for Danaharta). As payment for these acquisitions, Danaharta issued government-guaranteed zero-coupon bonds to the banks. Once the nonperforming loans were vested with Danaharta, the agency identified a recovery strategy for each and loan. The recovery methods ranged from softer options,	

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Country (crisis onset)	Source	Mandate	Strengths/weaknesses	Outcome
			such as plain loan restructuring for viable enterprises, to harsher methods, such as foreclosure of loan collateral or legal action where a borrower failed to restructure his loan or where the enterprise was not viable. Proceeds from the recovery of nonperforming loans were to be used mainly to redeem Danaharta zero-coupon bonds.	
Indonesia (1997)	Calomiris and others (2003)	The Indonesian government set up the Indonesian Bank Restructuring Agency (IBRA) with a wide set of responsibilities. Those included the restructuring of banks that were transferred to it, the recovery and restructuring of bank assets (including both physical assets and loans), and the recovery of state funds formerly disbursed to the banking sector. IBRA's strategy toward debt restructuring was to focus on the largest debtors, while outsourcing or selling small- and medium-sized loans. The smaller retail and SME loans were sold through open auctions, while medium-sized commercial loans were outsourced in batches to servicing agents through a competitive bidding process. As for the largest corporate debtors, the approach focused on restructuring the loans of the cooperative debtors, taking legal action against noncooperative debtors, and selling restructured loans through a competitive bidding system. Later, there was a shift toward direct loan sales at discounts (IMF 2000). On February 14, 1998, IBRA took over the surveillance of 54 banks, including 4 state banks and regional development banks	Loans were transferred at book value, which created incentives for IBRA to hold, rather than dispose of, the assets to avoid recognition of the loss. IBRA's success was rather mixed, and the loan disposal rate only started to improve once the agency shifted to selling loans at a steep discount. Similar to Mexico, the agencies activities were impeded by a weak judicial framework and weak enforcement mechanisms, the type of assets transferred (which were mostly corporate loans from state banks), and the large amount of assets transferred (as IBRA controlled over a third of total system assets at one point in time).	

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Country (crisis onset)	Source	Mandate	Strengths/weaknesses	Outcome
		that had borrowed from Bank Indonesia more than 200 percent of their capital and had a capital adequacy ratio below 5 percent. They represented 36.7 percent of total system assets. The majority of the nonperforming loans were transferred from the state banks. Seven of the 54 intervened banks were the largest borrowers from Bank Indonesia, accounting together for more than 75 percent of the total Bank Indonesia liquidity support.		
Slovenia (2011)	Nye (2021)	The government announced a public asset management company called the Bank Assets Management Company (BAMC or DUTB) in late 2012. The AMC would take over and manage banks' NPLs for five years, after which it would transfer any remaining assets to a Slovenian government holding company. The asset transfers would be coordinated with €3.2 billion in capital injections at the participating banks. An additional €190 million in capital was injected in 2014. The government established the BAMC on March 19, 2013, but the organization did not begin taking assets off the balance sheets of Slovenia's large government-controlled banks until December 20, 2013. This was because the BAMC had to delay its purchases until the European Banking Authority released Slovenia's stress-test results in December 2013. The BAMC went on to purchase assets with a total face value of €5.8 billion for €2.0 billion by the end of 2016. Slovenia had to extend the BAMC's lifetime to 2022 to complete the disposal of its assets.	The government argued that the BAMC contributed to Slovenia being one of the most successful countries in the euro area at resolving nonperforming assets. But the institution was charged not just with managing bad assets, but also with restructuring distressed corporate borrowers, which contributed to governance problems.	The BAMC paid back €1.28 billion of its €1.97 billion in government-guaranteed debts by the end of 2018, contributed €172 million in profits to the government and state-owned banks by the end of 2017, had an equity position of €200 million by the end of 2018, and had €830.1 million in remaining assets by the end of 2018. The BAMC, in combination with €3.4 billion of government capital injections, is seen as having helped Slovenia avoid an IMF-EU bailout.

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