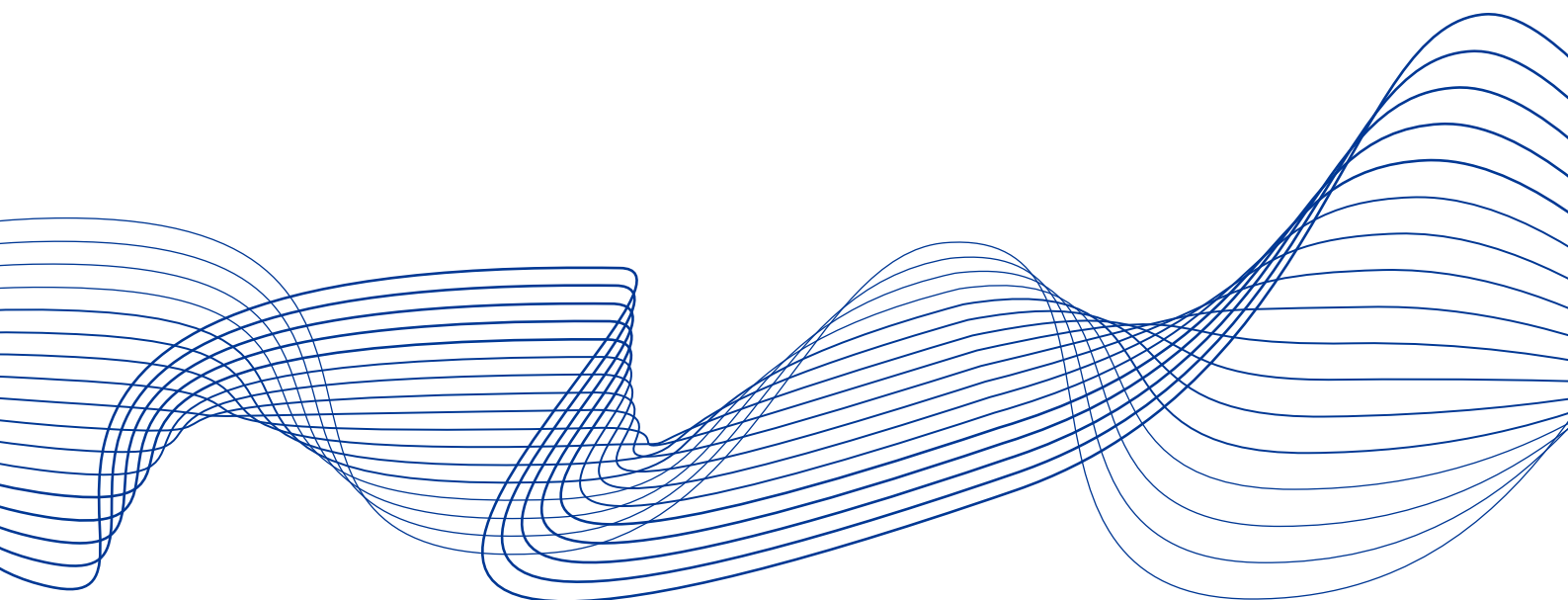


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Preparing for the post-pandemic rise in corporate insolvencies

by
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Abstract

Preparing for the post-pandemic rise in corporate insolvencies

The coronavirus (COVID-19) pandemic has severely affected economic activity around the world. The reduction in business activity during the pandemic will leave many firms highly indebted. Some face long-lasting or even permanent changes to their economic environment, and recovery may take a long time in the most affected industries. As a result, many firms are likely to be insolvent or close to insolvency when the public support measures that are currently in place are withdrawn. This ASC Insight provides an economic perspective on the trade-offs involved in dealing with a potential post-pandemic rise in corporate insolvencies.

Based on a brief summary of the economics of insolvency, we argue that the key challenge in dealing with post-pandemic corporate insolvencies will be to distinguish between viable firms and those which, owing to structural changes in their economic environment, have become non-viable “zombie” firms. *Targeting* of intervention measures is therefore essential. For viable firms, policy should aim to facilitate debt restructuring, relying on formal or informal insolvency procedures. For non-viable firms, policy should seek to facilitate the reallocation of resources to more productive uses.

In facilitating efficient restructuring and the reallocation of productive assets, the nature of the COVID-19 shock raises a number of specific issues.

- Small firms have been particularly affected by the COVID-19 shock. Yet, formal insolvency procedures often do not deal efficiently with small firms, in particular when it comes to restructuring.
- Policy should be mindful of congestion in formal and informal insolvency procedures. This includes the court system, banks’ ability to restructure their loans, as well as labour and asset markets through which resources are being reallocated. Policy should aim to increase capacity.
- Given the nature of European capital markets, banks play a central role in the restructuring of corporate debt. Potential regulatory and accounting disincentives to restructuring should be kept low. Restructuring by banks and landlords could be incentivised, for example, via tax credits.
- During restructuring, viable firms need access to liquidity. There may be a role for policy to ensure such liquidity provision, particularly outside of formal insolvency procedures (for example, via liquidity facilities directed at banks that restructure loans).



1 Introduction

The COVID-19 pandemic threatens not just health and life, but has also had a severely adverse impact on economies worldwide. The pandemic has complicated any type of business activity requiring face-to-face interaction. Some industries are set to face permanently lower demand. Dealing with these challenges, firms have drawn on available reserves and funding options, and unprecedented policy measures have been implemented to support these businesses. As support measures are withdrawn, as firms run out of funding options, and as some industries struggle to adjust to long-term demand shifts, a key policy concern is how to handle the likely increase in financial distress and corporate insolvencies (see, for example, Blanchard, Philippon, and Pisani-Ferry, 2020).

In this note, we provide an assessment of the current outlook for corporate insolvencies and the key trade-offs faced by policymakers, with a particular focus on macroprudential issues. We first provide a brief summary of the economics of insolvency. We then summarise the current economic situation. Based on this analysis, we discuss the trade-offs faced by policymakers in dealing with a potential wave of corporate insolvencies (although we do not attempt to assess each policy currently in place, or all of the national insolvency systems). We conclude with a brief discussion of longer-term structural issues related to insolvency law in the EU.



2 The economics of financial distress and insolvency

Financial distress and insolvency are long-standing topics of academic study. In this section, we summarise the key economic trade-offs involved in dealing with distressed and insolvent firms.

We will use the following definitions. A firm is in **financial distress** if poor financial performance negatively impacts its ability to conduct business. A firm is **insolvent** if it lacks the resources (or the ability to gather such resources) necessary to meet its obligations.¹ An insolvent firm may, voluntarily or involuntarily, find itself in **bankruptcy**, which is a formal procedure aimed at resolving an insolvent firm, either through its liquidation or by restructuring the firm's assets and liabilities in a manner that allows the firm to continue as a going concern.² An insolvent firm may also attempt to restructure its obligations outside of a formal bankruptcy procedure, for example, by directly renegotiating bank loans and other liabilities.

2.1 The trade-off between inefficient liquidation and inefficient continuation

A key economic trade-off in dealing with insolvent firms is to limit the inefficient liquidation of economically viable businesses, while minimising the continuation of non-viable businesses (sometimes referred to as “zombie” firms). This trade-off is a key consideration in responding to the COVID-19 crisis. Some firms experienced something akin to a temporary hiatus and an associated build-up of debt despite having business models that are viable going forward, while others experienced persistent or even permanent shocks that have made their underlying business non-viable.

When a firm's underlying business is viable, the firm's going-concern value exceeds the liquidation value of its assets. In these cases, liquidation destroys economic value and is, therefore, socially inefficient. These liquidation inefficiencies can be compounded by fire sales that arise when many firms are liquidated at the same time (Shleifer and Vishny, 1992). Preventing inefficient liquidation is therefore a key policy goal in the design of bankruptcy processes and other policies dealing with distressed firms.

One example of a formal procedure designed to facilitate restructuring is Chapter 11 of the US bankruptcy code, which provides an extensive toolbox aimed at protecting the firm's value as a

¹ A prototypical example of an insolvent firm is an indebted corporation which cannot meet a debt repayment. However, insolvency could also involve the inability to pay employees, landlords, suppliers, taxes, or any other fixed obligation.

² For the sake of brevity, we shall sometimes use the term “bankruptcy” to refer more broadly to any formal procedure to liquidate or restructure an insolvent firm. Many EU countries have one or more alternative procedures for restructuring firms which formally fall outside of the scope of bankruptcy law.



going concern. These tools include leaving management in place and introducing a stay on assets, which prevents unsecured creditors from collecting debts and blocks secured creditors from seizing their collateral. Chapter 11 also allows firms to obtain new financing with high priority, so that they can continue to finance operations while a restructuring deal is reached. Many other countries have reformed their insolvency laws in ways that mimic aspects of Chapter 11, with the aim of reducing the tendency to liquidate insolvent firms.³

When a business is not viable, liquidation is generally the socially efficient outcome (Dewatripont and Tirole, 1994). Liquidation frees up economic resources for alternative uses, allowing efficient reallocation of resources to take place. By contrast, protecting non-viable firms from liquidation locks resources in low productivity uses. Sustaining existing business entities at all costs can therefore have considerable costs in terms of lost productivity growth and economic dynamism, as exemplified by Japan's stagnation during the "lost decade" (Caballero, Hoshi, and Kashyap, 2008). Given the systemic nature of the COVID-19 shock, getting continuation and liquidation decisions right is very important from a macroeconomic perspective.

An insolvency system that restructures viable firms and liquidates non-viable firms has several advantages. First, it offers a way of addressing high leverage without destroying economic value – maintaining employment, contracts with suppliers, customer relationships, and future tax revenues. During recessions and crises, such direct benefits from avoiding liquidation are particularly large (Gilson, 2012). Second, beyond allowing a firm to continue as a going concern, restructuring can reduce inefficiencies resulting from incentive distortions that occur in firms with high leverage. Shareholders in distressed firms may forego positive NPV investments whose benefits would fall to creditors (Myers, 1977), or adopt excessively risky strategies (Jensen and Meckling, 1976). Third, by maximising total value, a properly designed restructuring process can help protect creditors. This, in turn, is beneficial for the development of corporate credit markets (Becker and Josephson, 2016), potentially lowering the cost of funds for firms.

2.2 The ex ante versus ex post trade-off

Another trade-off that has been studied extensively in academic research is the interplay between the ex post resolution of financial distress or insolvency and the ex ante incentives this generates for firms. The classic argument is that an insolvency system that is more lenient towards overindebted firms increases the incentives for firms to take on leverage. This, in turn, makes it more likely for financial distress to occur, including the aforementioned incentive distortions resulting from high leverage. By disciplining firms, a tough bankruptcy regime can therefore have ex ante benefits. However, given the unprecedented and (likely) one-off nature of the COVID-19 shock, such ex ante considerations probably play a minor role in the immediate response to the

³ Davydenko and Franks (2008) compare a number of European bankruptcy codes. Baird (2014) summarises the history of Chapter 11 and its features.



COVID-19 crisis. They are important, however, when considering long-term structural reforms to bankruptcy law.

2.3 The cost of formal insolvency procedures

Resolving overindebtedness through a formal procedure incurs costs. Lawyers, judges and courts need to be paid. Moreover, formal insolvency procedures can be time consuming. Because of a large fixed-cost component, these costs can make formal insolvency proceedings particularly unattractive for small firms. In addition, research has shown that outcomes for Chapter 11-type bankruptcy depend on how busy (or congested) the system is. For example, Iverson (2018) shows that busy bankruptcy courts lead to a liquidation bias for small firms. Finally, the costs imposed on firms by undergoing formal insolvency procedures depends on the ease of operating and obtaining financing while in bankruptcy.

2.4 Formal versus informal insolvency procedures

As previously mentioned, restructuring can be done via a formal procedure or more informally, for example through out-of-court renegotiation of bank debt. Formal procedures are more predictable in terms of financial outcomes and can handle more complex capital structures, but they usually involve higher administrative costs and take more time. Informal restructurings, on the other hand, are less costly but also less predictable and less comprehensive.

When comparing insolvency law across countries, it is important that a tendency for businesses to be liquidated in formal proceedings does not necessarily imply that liquidation is the more likely outcome when also taking into account out-of-court workouts. For example, even if the formal insolvency procedures liquidate all corporations that file for bankruptcy, the outcome can be that businesses continue to operate in a similar form. This happens if all (or most of) the firm's assets are transferred as a going concern to new owners in a liquidation auction in a way that preserves employment and other contractual relations within a new legal entity (Strömberg, 2000).⁴ Alternatively, informal out-of-court workouts may allow for restructuring in cases when formal insolvency proceedings favour liquidation (Brunner and Krahen, 2008). Because out-of-court proceedings usually lack the mechanisms that support the operational and financial restructuring in Chapter 11 (automatic stay, freedom from interest payments, favoured status for new funding), they tend to be possible only for firms with simple capital structures, moderate leverage, and operations that are not too deeply distressed (Jostarndt and Sautner, 2010).

⁴ This logic suggests that for businesses with easily transferable tangible and intangible assets, the distinction between liquidation and restructuring is less material than if highly firm-specific assets are involved.



3 The impact of COVID-19 on corporate insolvencies

In this section, we discuss early indicators of the impact of the COVID-19 shock on corporate insolvencies in the EU and other advanced economies. We also investigate trends in the number of firms using formal procedures (including bankruptcy) to resolve their solvency problems. We aim to document the situation as of the fourth quarter of 2020 and make some tentative projections for the immediate future (i.e. 2021 but not much beyond). We do not aim to provide a comprehensive economic analysis of the pandemic's broader economic impact, nor any detailed economic forecasts. The purpose is to provide some sense of the potential scale of corporate insolvencies looking ahead.

Despite reporting lags and cross-border differences in definitions, measuring the number of bankruptcies is relatively easy, since they are formal court procedures covered by official statistical sources (albeit sometimes with significant reporting delays).⁵ In some countries, there are also non-bankruptcy in-court insolvency procedures (such as the Procédure de Sauvegarde in France), which are covered by official statistics. Similarly, default events – when a firm misses a debt payment or breaches a covenant of a debt contract – are often well documented for larger firms with public debt (commercial paper, bonds) or syndicated loans. For corporate bank loans, the sources of information on default include credit registries and banks' accounting reports. According to the data presented below, as of the fourth quarter of 2020, we have not seen a significant increase in the number of bankruptcies in the EU thus far.

Compared to bankruptcy and default, insolvency is more difficult to assess, because insolvency is not unambiguously identified by external events. An insolvent firm is one which is unable to repay its debt. A firm can be borderline insolvent or deeply insolvent and furthermore it can be solvent today but face the risk of becoming insolvent in the near future. Insolvency can therefore usually not be directly observed but must be inferred indirectly based on financial market data (e.g. stock prices, bond yields, CDS spreads, or accounting figures).

Despite these measurement challenges, it is important to assess the current state of corporate insolvency, both to understand the macroeconomic situation and to forecast the need for corporate restructuring and the pressures that the insolvency system may experience over the next few years. Below, we use indirect evidence from accounting data, financial markets and credit rating agencies to assess the extent of insolvency among EU firms.

⁵ In some countries, bankruptcy statistics form part of the general statistics on the judicial system and appear in yearly reports several months after the end of each year.



3.1 The macroeconomic shock

The COVID-19 pandemic has significantly reduced economic activity across the globe. Euro area GDP is projected to fall by 5.0% in 2020.⁶ The world economy is expected to shrink by 4.9%.⁷ For many businesses, the pandemic dramatically reduced revenues from February or March 2020 onwards. This is particularly true in industries requiring face-to-face contact. Many retail businesses virtually ceased operations. Social distancing, hygiene practices and other restrictions severely reduced economic activity. This shock has impacted industries differently: the retail, airlines, travel and restaurant industries have experienced massive revenue loss. Some other industries have benefited from changes in demand, including delivery and digital services.

3.2 Default and bankruptcy

While many European firms struggled with low revenues from early 2020, there have been relatively few bankruptcies to date. Figure 1 shows the number of bankruptcy filings in six European economies, up to and including September 2020. The low incidence of bankruptcy filings almost certainly reflects a combination of extensive public support measures, continued access to funding sources and a reluctance to resort to formal insolvency procedures.⁸

⁶ ECB staff macroeconomic projections for the euro area, September 2020.

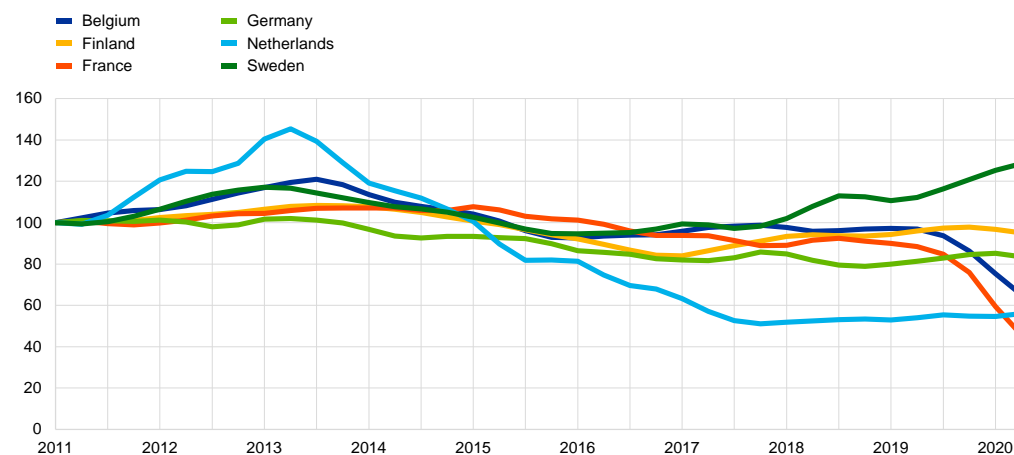
⁷ World Economic Outlook, IMF, June 2020.

⁸ See also Banerjee, Kharroubi, and Lewrick (2020), who suggest that policies supporting distressed firms have reduced bankruptcy filings across developed economies.



Figure 1
Bankruptcies in selected European countries

(Index 2011-Q1 = 100)



Source: OECD.

Note: Last observation refers to June 2020.

In the United States, bankruptcy filings remained low until the late summer. Up to August 2020, Wang, Yang, Iverson, and Kluender (2020) report that the total number of US corporate bankruptcy filings was similar to the same period in 2019. However, the composition of bankruptcies shifted: the number of Chapter 7 filings (i.e. liquidation) was down 12% relative to the previous year, whereas the number of Chapter 11 filings (i.e. restructuring) was up 24%.⁹ The composition of insolvencies is therefore different from both normal times and past crises: the share of Chapter 11 restructurings among all corporate bankruptcies was 43% in the second quarter of 2020, compared with 28% in the same quarter in 2019 and 25% in 2009 (i.e. during the global financial crisis). This pattern is consistent with the view that the COVID-19 crisis is a large temporary shock, with firms struggling to meet their obligations, even though the underlying businesses are viable and worth more if restructured than liquidated (i.e. exactly the type of situation Chapter 11 is designed to address).

While European bankruptcy numbers have remained low, a few areas are showing early signs of rising credit problems. For example, Nordic region bond defaults have risen since the end of the summer.¹⁰

Deterioration in credit ratings constitutes a forward-looking warning sign for rising credit risk. Figure 2 illustrates that downgrades dominated credit ratings changes in the first three quarters of 2020. This pattern reflects a deteriorating credit outlook for the universe of rated firms. In October 2020,

⁹ The authors use several complementary data sources. Using an alternative source, the changes in the number of Chapter 7 and Chapter 11 filings are -11% and +32%, respectively, and total bankruptcy filings are 2% higher than in 2019.

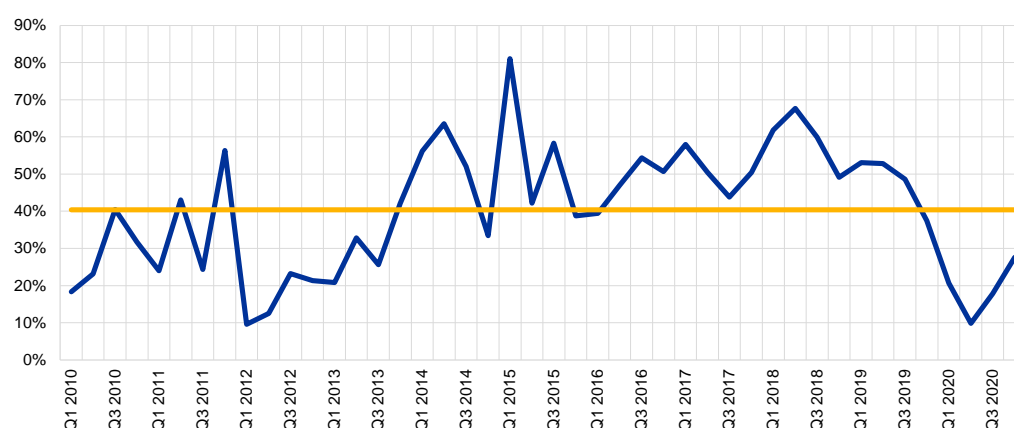
¹⁰ Based on data obtained from Nordic Trustee.



Standard & Poor's predicted that the European corporate default rate for 2020 would be 8.5%, compared with 3.8% in the previous year (Reuters, 2020). The corporate default rate is therefore projected to remain below the peaks of 10-12% reached in the two prior recessions. However, the number of "fallen angels" (previously IG firms downgraded to HY status) is predicted to reach an all-time record high. Moody's (2020) forecasts a default rate in the range of 4.7% to 8.9% for the 12 months starting in March 2020 and ending in February 2021. Both of these forecasts suggest increasing credit stress in Europe, but below the levels seen in 2009, at least among larger firms that are rated.

Figure 2
Downgrade share of all rating changes

(percentages)



Source: Bloomberg.

Notes: Covering ratings of entities domiciled in Andorra, Austria, Belgium, Denmark, Finland, France, Germany, Gibraltar, Greece, Guernsey, Iceland, Ireland, Isle of Man, Italy, Jersey, Liechtenstein, Luxembourg, Malta, Monaco, Netherlands, Norway, Off Shore jurisdictions, Portugal, Spain, Sweden, Switzerland, and United Kingdom. The yellow line represents the average since 2010.

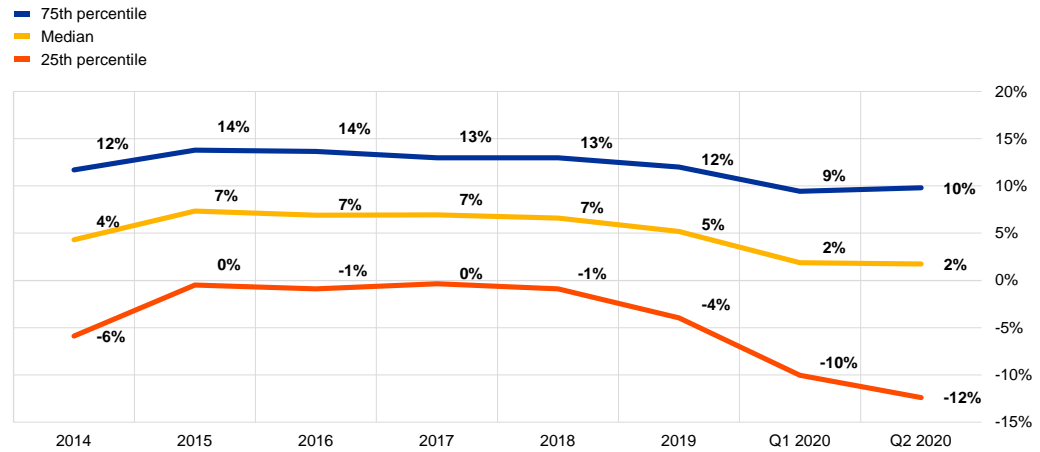
3.3 Insolvency and distress

Corporate accounting data offer an alternative way of assessing the build-up of credit risk. Greenwood, Iverson, and Thesmar (2020) document a large increase in the number of publicly listed firms in the United States experiencing negative earnings. Corresponding data for publicly listed EU countries are presented in Figures 3 and 4. While median profitability remained positive in the first two quarters of 2020, almost half of public firms reported negative return on equity (ROE), with the bottom quartile experiencing significantly negative ROE.



Figure 3
Return on equity of EU publicly listed corporations

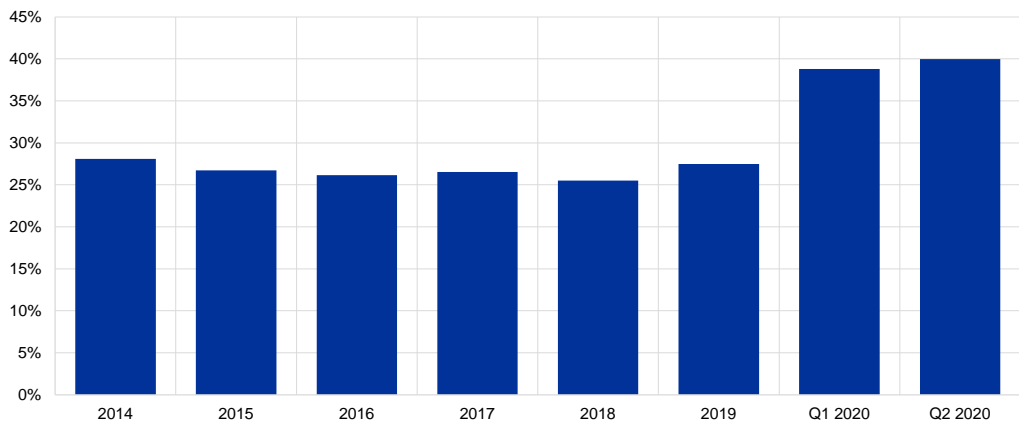
(percentages)



Source: CapitalIQ.

Note: Return on equity is net income divided by shareholders' equity.

Figure 4
Return on equity of EU publicly listed corporations: fraction negative



Source: CapitalIQ.

Note: Return on equity is net income divided by shareholders' equity.

Gourinchas, Kalemli-Özcan, Penciakova, and Sander (2020) estimate the impact of COVID-19 on small and medium-sized enterprises (SMEs) in Europe. They use a sample of firms in 17 countries (of which 14 are EU members) and forecast performance based on 2018 accounting data from Orbis, using a model that reflects sectoral shocks and estimates of the feasibility of remote working arrangements in each industry. Based on a number of simplifying assumptions (e.g. fixed output prices and no access to new financing), they predict that, in the absence of government support, the COVID-19 shock would have increased the yearly SME failure rate from 9% to 18%.



Carletti, Oliviero, Pagano, Pelizzon, and Subrahmanyam (2020) assess the impact of strict limits to economic activity, such as those observed during a lockdown, on a sample of Italian firms. Using detailed accounting data (up to 2018) and estimating sectoral shocks based on the different restrictions imposed in Italy on sectors considered “essential” and “non-essential”, they forecast that a three-month lockdown generates a reduction in profits in the order of 10% of quarterly GDP.

Both Gourinchas et al. (2020) and Carletti et al. (2020) predict significantly increased SME failure rates, with repercussions on employment, but a relatively modest impact on financial sector balance sheets. Other market observers (e.g. Allianz Research, 2020) also point to the severe pressure that the COVID-19 shock represents for SMEs, in many cases leading to insolvency or near-insolvency in the absence of public support measures. Public intervention, in the form of moratoria on debt, government-guaranteed credit lines, and the temporary suspension of requirements to file for bankruptcy, has thus far suppressed a wave of insolvencies. However, some of these support measures (e.g. emergency loans) also imply that SMEs will be even more indebted once these public support measures are phased out. Many SMEs will therefore need to restructure their debt or be forced into formal insolvency procedures. Given the pro-liquidation orientation of European insolvency law, some of these firms will likely be liquidated even if their business operations are viable.

3.4 Heterogeneity

Several data sources point to significant heterogeneity in credit stress across industries. US Chapter 11 filings in 2020 were up most for restaurants, healthcare, retail, and oil and gas. Default rates on US leveraged loans started increasing in July, and borrowers were granted covenant relief at record rates.¹¹ Gourinchas et al. (2020) forecast that the industries where SMEs are most likely to have been affected include accommodation and food services, arts, entertainment and recreation. Carletti et al. (2020) forecast similar sectoral heterogeneity.

Overall, this evidence points to the following characteristics in the most affected sectors: reliance on physical proximity (e.g. restaurants, entertainment, and travel), exposure to natural resources (e.g. oil) and global supply chains, and a lack of public support measures. Some of these industry patterns likely reflect temporary shocks – for example, post-pandemic demand for restaurants could recover completely, or recover subject to new distribution models. In other industries, shocks may be more permanent. For example, business travel may not recover fully, even once organisations have developed improved online communication capabilities. Similarly, the long-term shift to online retail has likely accelerated considerably (McKinsey, 2020), and there may be little post-pandemic reversion (Lafontaine and Sivadasan, 2020). In these cases, a temporary shock may accelerate

¹¹ Leveraged loans are syndicated loans that are rated below investment grade at issue. The reported numbers are from Hu, Beddow, and Miller (2020). Covenant relief refers to lenders agreeing to forgive what would otherwise have constituted the breach of a financial covenant (e.g. a limit on leverage). These events can be considered avoided debt defaults. Lenders' motivation for forgiveness may include avoiding a bankruptcy filing by the borrower.



developments which become persistent, and alternative uses for some of the assets involved (including real estate) may become more productive.

The severity of the COVID-19 shock also varies with firm size. In the United States, large firms have used credit markets to build up liquidity buffers (Hotchkiss, Smith, and Nini, 2020) and have used the US bankruptcy system to restructure (Wang et al., 2020). Some large firms, particularly in the technology sector, have benefited from increased economic activity online. Reflecting this relatively benign situation for some large firms and the impact of unprecedented policy measures to support the economy, global stock market capitalisation recovered from a severe decline in March and is down only slightly for the calendar year.¹² Smaller firms were more affected by the pandemic, because they more often employ business models that rely on physical proximity and have fewer options for borrowing and for restructuring.

¹² For example, the European STOXX50 index was down 14%, for the year to date, by 17 October 2020.



4 Short-term policy options

We now draw on the discussion of the economics of insolvency and recent insolvency trends to discuss some of the potential policies that might improve macroeconomic outcomes. We focus on short-term policy options that take existing EU insolvency law and its heterogeneity across countries as given. In Section 5, we briefly discuss longer-term policies that involve changes in EU insolvency law.

The empirical evidence paints a clear picture: once support measures are withdrawn, the COVID-19 shock is likely to leave behind a large number of highly indebted firms, many of which (close to) insolvent. The evidence also suggests significant heterogeneity across industries. Moreover, small firms are likely to be particularly hard hit.

In the absence of successful restructuring, many viable businesses will end up being liquidated. Yet, it is also clear that the pandemic has accelerated long-term trends in some sectors and has created lasting changes to the economic environment that have made some businesses non-viable. Some economic resources should therefore be reallocated to more efficient uses in other sectors or in businesses that are better adapted to the post-pandemic economy.

Hence, while public support interventions in the face of a wave of corporate insolvencies that could follow the COVID-19 shock should aim to reduce inefficient liquidation, it is of similar importance to allow an orderly reallocation of the resources of non-viable businesses to more efficient uses.

When considering support interventions, **targeting them at firms that are more likely to be viable** is therefore important. Interventions targeted at non-viable firms should seek to minimise deadweight losses in the liquidation process, striking a balance between unnecessary delays, reducing judicial and non-judicial bottleneck effects, and the incidence of fire sale externalities. Designing interventions that properly distinguish between viable and non-viable firms may require utilising, as much as possible, industry- and firm-specific knowledge held by informed lenders, such as banks, firms' management, and investors.¹³

In contrast to the United States, where Chapter 11 offers the possibility of a management-led reorganisation to insolvent firms, in some national insolvency systems in the EU, insolvent firms will either reach agreements (either out of court or in court) with their key creditors (typically banks) or end up in a formal procedure that tends to lead to liquidation. Given the heterogeneity of insolvency law across the EU, it is impossible to give blanket recommendations. However, some issues are likely to be key across jurisdictions: the potential **congestion of the insolvency system**, the **inadequacy of existing formal restructuring procedures for most SMEs**, the **incentives of the relevant parties to restructure** as opposed to liquidate, and the **provision of liquidity during restructuring**. We shall now discuss each of these issues in turn.

¹³ The key challenge in targeting interventions is identifying "zombie" firms. This is usually not straightforward (see, for example, Caballero et al., 2008).



The issue of congestion arises because both courts and the financial system have limited capacity for handling insolvencies. With respect to formal bankruptcy procedures, this point has attracted significant attention in the United States, where the emphasis has been on avoiding or finding remedies to court congestion. In Europe, an additional issue may arise. Because in some EU countries formal bankruptcy proceedings allow less scope for restructuring than in US Chapter 11 and because banks are the main providers of debt financing to firms, restructuring will likely rely more heavily on reaching workout agreements with **banks**. Therefore, it is important that the need to restructure corporate loans does not overwhelm European banks, operationally or financially. In terms of financial capacity, at least two issues loom large. The first issue is banks' financial slack to absorb short-term losses related to debt restructuring (which can arise even when restructuring is motivated by long-term value maximisation). The second issue is the potential existence of institutional disincentives for restructuring (e.g. an unfavourable accounting or regulatory treatment of restructured loans).

Given the social value of preventing inefficient liquidation, where possible, there should be strong **incentives to restructure bank loans**. Restructuring often forces a write-down for a lender recognising the losses involved. The more realistic the prior accounting treatment of distressed loans, the smaller the profit implication of their restructuring. A lenient accounting treatment of distressed loans, which implies their overvaluation in the bank's books, increases the opportunity cost of restructuring.

In addition to congestion of courts and banks, **asset markets** and **labour markets** also **face capacity constraints**. Asset markets can only reallocate a limited amount of capital without risking fire sales, while the reallocation of workers in the labour markets takes time. All of these capacity constraints can, in principle, be targeted by policies to alleviate congestion and to encourage more efficient restructuring and reallocation. For example, unemployment insurance can help in reallocating workers. A healthy banking system helps to reallocate capital by providing loans to new owners and by supporting viable firms. When the banking system has large amounts of impaired assets, restructuring can be streamlined and accelerated by segregating these assets in an asset management company or bad bank (e.g. Brei, Gambacorta, Lucchetta and Parigi, 2020). Similarly, strong capital markets are important in facilitating the productive redeployment of assets of liquidated and restructured firms. In many cases, reallocation of labour and productive assets is easier when done at a moderate pace.

Formal bankruptcy procedures are associated with significant legal and administrative costs, which is a particular burden for **small firms**. Also, owner-managers are often essential for small firms, so that completely wiping out their equity, as most formal bankruptcy procedures do, becomes self-defeating. The recent Small Business Reorganization Act in the United States, which allows owners of small firms to retain equity in Chapter 11 under certain conditions, is designed to address both of these issues, based on the observation that, historically, Chapter 11 has been used mostly by large firms. In jurisdictions where a simpler procedure for smaller firms is not in place, it may be more efficient to restructure small businesses outside of formal bankruptcy proceedings. This can be encouraged through tax incentives for loan forgiveness and by providing boilerplate terms, as proposed by Greenwood and Thesmar (2020), Balloch, Djankov, Gonzalez-Uribe, and Vayanos (2020), and Blanchard, Philippon, and Pisani-Ferry (2020). For example, such an approach could



be an efficient way for small businesses and landlords to restructure unpaid rent accumulated over the months of the pandemic.

Liquidity provision has received significant attention in the US debate about relying on Chapter 11-type restructuring to deal with the fallout from the pandemic. Firms require access to liquidity to continue operating while restructuring under Chapter 11, which can take several months. This type of financing is called “debtor-in-possession” (DIP) financing. DeMarzo, Krishnamurthy, and Rauh (2020) propose that public intervention measures may be needed to support the seamless provision of DIP financing to ensure successful restructuring outcomes and lower bankruptcy costs. As discussed above, in Europe restructuring often happens outside of formal bankruptcy procedures. Therefore, in addition to ensuring liquidity in formal restructuring procedures, in Europe there may be a role for additional policies to ensure sufficient liquidity provision to firms while they undergo out-of-court restructuring. If much of this funding is likely to be provided by banks, then an important question is whether banks’ lending capacity and/or access to liquidity facilities is sufficient to ensure liquidity provision to restructuring firms. If this is not the case, additional intervention (e.g. through a dedicated central bank facility) could be contemplated.

Finally, the efficiency with which insolvency law can work depends on its interaction with other fields of the law, such as corporate and labour law, as well as with accounting rules and financial regulation. It therefore goes without saying that for all policy options discussed above, it is important to watch for such interactions and potential unintended consequences. For example, a soft accounting and regulatory treatment of troubled borrowers that improves banks’ financial slack may also encourage “zombie” lending. A resulting “zombie” bank problem would negatively affect investor confidence and bank solvency.



5 Conclusion and longer-term structural issues

The COVID-19 pandemic has created an unprecedented combination of liquidity pressures on many businesses and an acceleration of important long-term trends favouring digital business models and business practices that do not require physical interaction. These liquidity pressures raise the spectre of an excessive liquidation of viable firms. At the same time, economic disruption and the support programmes aimed at mitigating this effect raise concerns about corporate “zombies”, subsisting with low productivity and a loss of dynamism.

This shock will ultimately lead to a large number of insolvent firms, with very diverse prospects going forward. This situation calls for an insolvency system that treats insolvent firms differently depending on their future potential. An ideal system would separate viable from unviable businesses based on business economics, not on capital structure; it would provide the means to restructure the liabilities of firms with a viable entity; it would provide a mechanism for reallocating resources away from low productivity uses, presumably by liquidating some firms; the system would do this swiftly and at modest cost; and the system would make sure that liabilities are paid fairly and in order of seniority, regardless of the liquidation decision.

The institutions in the EU, which will play a key role in managing these insolvencies, do not currently live up to this ideal. However, the complex nature of insolvency law – its entanglement with many other areas of law; its connection to financial institutions and practices, including millions of financial contracts; its dependence on courts and experts to function in practice – makes it unrealistic to expect any reforms of insolvency law itself in the short run. For this reason, the above discussion of the policy options takes insolvency law as given and focuses on interventions that can be achieved given this constraint, such as encouraging out-of-court restructurings of bank loans.

However, looking beyond the current crisis, fundamental reforms in EU insolvency law could generate considerable gains in the ability to handle future adverse shocks. We therefore conclude this ASC Insight with **a tentative list of long-term reforms** that could alleviate problems in the next crisis.

- **Improve in-court insolvency procedures.** The fact that in the EU insolvency is often resolved out of court has several negative consequences. For example, out-of-court workouts often favour banks over other creditors, which, in turn, limits capital market development. Out-of-court restructuring is also less efficient when dealing with deeply distressed firms or complex capital structures and is less transparent.
- **Facilitate in-court restructuring** (as opposed to liquidation), since total economic value is often maximised by maintaining a firm’s going concern value. For example, liquidation often destroys intangible assets such as business culture, relationships, and practices. In-court restructuring also facilitates liquidity provision during the restructuring phase.
- **Reduce reliance on timing for driving liquidation decisions.** Recent EU restructuring reforms have emphasised the importance of pre-insolvency procedures for restructuring in order to avoid overlaps with existing in-court procedures triggered by insolvency. However,



early detection of potential insolvency is difficult – most firms that experience mild stress do not end up becoming insolvent. In practice, this limits the usefulness of pre-insolvency procedures for restructuring. Moreover, some insolvent firms (which will not be eligible for pre-insolvency procedures in many countries) are in fact viable. Liquidating these simply because they are insolvent is inefficient. An ideal system should use viability, not depth of insolvency, to determine whether insolvent firms are liquidated.

- Separate **small-firm and large-firm** insolvency procedures would be useful.
 - Small firms often rely on owner-managers whose equity must be protected during restructuring for the firm to remain viable (this is touched upon in recent US Chapter 11 reforms). In addition, small firms usually cannot bear the costs associated with formal procedures designed to resolve large firms.
 - Large firms in distress may need to handle complex balance sheets, assets across many jurisdictions, large values, representation of competing interests, and should almost always avoid liquidation. More concentrated expertise may be needed for these complex situations. For example, the entire US bankruptcy system involves a handful of federal courts, and large firms use three of them almost exclusively (Southern District of New York, Delaware, and Texas).
- A **more uniform EU insolvency system** may be helpful in achieving these goals.



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