ANALYSIS OF INSOLVENCY PROCEEDINGS IN SPAIN AGAINST THE BACKDROP OF THE COVID-19 CRISIS: INSOLVENCY PROCEEDINGS, PRE-INSOLVENCY ARRANGEMENTS AND THE INSOLVENCY MORATORIUM

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Abstract

The inefficiency of Spanish insolvency proceedings – evidenced by their length and reflected in the fact that non-financial corporations and sole proprietors make limited use of both insolvency proceedings and pre-insolvency arrangements – is a structural shortcoming of the Spanish economy. It is a problem that has become particularly important against the backdrop of the COVID-19 crisis and the severe impact it is having on the financial situation of Spanish firms, despite the broad range of public measures introduced to mitigate it. This document analyses the functioning of the insolvency system, examines the pros and cons of the insolvency moratorium currently in place and proposes various alternatives that could make the system more efficient when the moratorium expires at the end of the year.

Keywords: insolvency proceedings, pre-insolvency arrangements, insolvency moratorium, business activity, debt discharge, court congestion.

JEL classification: G33, K35, H12.

Resumen

La baja eficiencia de los procedimientos de insolvencia en España, evidenciada por su larga duración y reflejada en el escaso uso tanto de los concursos de acreedores como de los mecanismos preconcursales por parte de las sociedades no financieras y los empresarios individuales, es un problema estructural de la economía española. Este problema cobra especial relevancia en la actual crisis del Covid-19 y en su fuerte impacto en la situación patrimonial de las empresas españolas, a pesar del amplio abanico de medidas públicas implementadas para mitigarlo. El presente documento analiza el funcionamiento del sistema concursal, estudia los pros y los contras de la actual moratoria concursal y propone diversas alternativas para mejorar la eficacia del sistema, una vez que dicha moratoria expire a finales de año.

Palabras clave: concursos de acreedores, mecanismos preconcursales, moratoria concursal, actividad empresarial, exoneración de deuda, congestión judicial.

Códigos JEL: G33, K35, H12.

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1 Introduction

Pre-insolvency arrangements and insolvency proceedings are essential for business activity, since they distinguish between firms that are highly indebted but viable (temporarily insolvent but with good business prospects), whose debt needs to be restructured, and non-viable firms (permanently insolvent), which should be liquidated (White, 1994). How these proceedings are designed has significant economic implications. First, efficient insolvency systems lead to higher aggregate productivity (McGowan et al., 2017), more innovation (Acharya and Subramanian, 2009) and higher investment (Ponticelli and Alencar, 2016). Second, insolvency proceedings allow creditors to recover part of their unpaid claims, in an orderly fashion, providing banks with greater incentives to lend (La Porta et al., 1997; Giannetti, 2003; Qian and Strahan, 2007; Rodano et al., 2016). Lastly, the correct functioning of personal insolvency proceedings encourages entrepreneurship (Fan and White, 2003; Armour, 2004; Armour and Cumming, 2008) owing to an "insurance effect": sole proprietors become less fearful of insolvency, as part of their debts may be discharged in these proceedings.

Insolvency proceedings (concursos de acreedores) in Spain are currently governed by the Insolvency Law (Ley Concursal), which was approved in 2003 and came into force on 1 September 2004.1 However, the increase in insolvency proceedings in the wake of the global financial crisis revealed many malfunctions in the system. This led to six reforms of the Insolvency Law between 2009 and 2015.2 Insolvency proceedings may also be used by consumers, but this document focuses on the case of firms and the self-employed.

These are legal proceedings that aim to resolve a situation of insolvency via one of two channels: a restructuring agreement or liquidation. A restructuring agreement is an agreement between creditors and the debtor company - a debt restructuring - which seeks to ensure that the lenders recover the highest possible proportion of credit and that the firm continues to operate. The agreement may envisage a reduction in the nominal amount of the debt, a deferral (a delay in the repayment schedule), a debt-equity swap and assignment of assets and rights in payment of debt, and it must have the backing of the majority of unsecured credit.3 Liquidation consists of the sale of a firm's assets to pay its creditors in accordance with a certain order of collection or priority of claims.4

In addition, there are two types of pre-insolvency arrangements, which aim to settle insolvency problems that are detected early, i.e. before the firm's financial situation becomes too serious and irreversible. One is the out-of-court payment agreement (acuerdo extrajudicial de pagos) for individuals and small firms. The other is the refinancing agreement

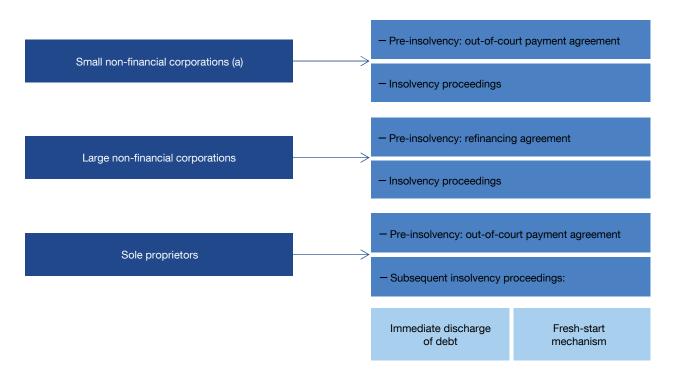
¹ Law 22/2003 of 9 July 2003. However, owing to the various changes made to the original text, the Consolidated Text of the Insolvency Law came into force on 1 September 2020. See Royal Legislative Decree 1/2020 of 5 May 2020 approving the Consolidated Text of the Insolvency Law.

² For a description and assessment of the reforms, see García-Posada and Vegas (2018).

³ Credit facilities, trade credit, credit cards, consumer loans, etc.

⁴ See the Appendix for an explanation of the order of priority and of the various kinds of claims.

Figure 1 PRE-INSOLVENCY ARRANGEMENTS AND INSOLVENCY PROCEEDINGS FOR NON-FINANCIAL CORPORATIONS AND SOLE



SOURCE: Banco de España.

a Fewer than 50 creditors, estimated liabilities of no more than €5 million, assets of no more than €5 million.

(acuerdo de refinanciación), a variant of which - the court-approved refinancing agreement (acuerdo de refinanciación homologado judicialmente) - offers most protection to the debtor; both alternatives are designed for firms of a certain size.

Lastly, insolvency proceedings for individuals, whether self-employed or small business owners, have certain specific characteristics. For owners of small firms, personal insolvency is linked to business insolvency, because even if the business activity is pursued through a limited liability company, the firm's debts are often the owner's personal debts, since lenders generally require personal or mortgage guarantees (Berkowitz and White, 2004; Mayordomo et al., 2020a). In this case, there are two insolvency channels: immediate discharge of debt following liquidation of the debtor's non-exempt assets, and the fresh-start mechanism (mecanismo de segunda oportunidad), which consists of a five-year repayment plan up to definitive discharge.⁵ Figure 1 illustrates the different pre-insolvency arrangements and insolvency proceedings by company type.

The sharp fall in corporate turnover caused by the COVID-19 crisis has had an adverse impact on the financial situation of some firms and has possibly given rise to temporary solvency difficulties. In this context, in April the Spanish Government approved

⁵ These two channels may also be used by individuals with no business activity.

Royal Decree-Law 16/2020⁶ which establishes an insolvency moratorium for all debtors, be they firms or individuals. Specifically, it suspends until 31 December 2020 the requirement that debtors must file for insolvency, i.e. voluntary filing *(concurso voluntario)* and it prevents their creditors from initiating filings *(concurso necesario)* before that date.

Following this introduction, the rest of the document is structured as follows: Section 2 documents the low level of use of insolvency proceedings and pre-insolvency arrangements in Spain and suggests possible causes for this; Section 3 analyses the pros and cons of the insolvency moratorium implemented in Spain in response to the COVID-19 crisis; Section 4 proposes solutions to the various problems relating to insolvency proceedings in Spain; Section 5 presents the main conclusions; and lastly, the Appendix contains a more detailed explanation of the various proceedings under the Insolvency Law.

⁶ Royal Decree-Law 16/2020 of 28 April 2020 on procedural and organisational measures to address the impact of COVID-19 on the justice system (Official State Gazette (BOE) of 29 April 2020).

2 The Spanish insolvency puzzle and how insolvency proceedings and pre-insolvency arrangements work

According to Hart (2000), all developed economies have some kind of insolvency system. The main reason for this is that, although private debt renegotiations may be more flexible and less costly than formal bankruptcy proceedings, they are hampered by significant problems of coordination (specifically, collective action problems where a firm has numerous creditors) and asymmetric information. This is especially true in the case of firms of a certain size and with a complex capital structure. Specifically, all insolvency legislation in advanced economies provides for an automatic stay on enforcement of guarantees from the moment the debtor applies for insolvency. This prevents creditors from rushing to enforce their guarantees against the firm's assets (i.e. a creditors' race). It also prevents the firm from being dismantled in a disorderly manner before it is possible to assess whether a debt restructuring may be more efficient. Moreover, the aim of the initial phase of insolvency proceedings (in Spain, the *fase cómun*) is to eliminate any information asymmetries between the debtor and the creditors, as the insolvency administrator draws up a public list of the firm's assets and debts.

In terms of international comparison, in Spain firms and the self-employed have traditionally made very limited use of insolvency proceedings. The business insolvency rate (the ratio of business insolvencies to total businesses in the country), which is the measure that is generally used to approximate the relative importance of insolvency proceedings, illustrates this. As shown in Table 1 (second column), which is taken from García-Posada and Mora-Sanguinetti (2012), in 2006 Spain had the second-lowest rate of business insolvencies among the countries analysed (behind Poland). Even after a period of economic crisis, such as that which began in 2008, when the number of insolvencies rose significantly in Spain, the business insolvency rate remained well below that of other developed economies (see Table 1, last column). For example, while in Spain there were around 15 insolvencies per 10,000 businesses in 2010, there were 88 in Japan, 89 in Germany, 98 in the United States, 137 in the United Kingdom and 217 in France. The same conclusion is drawn using an alternative indicator, the "conditional" business insolvency rate where the denominator uses the number of firms that exit the market (see Table 1, third column).7 It seems, therefore, that the low insolvency rate in Spain is not linked to the also low rate of market exits of firms (see Núñez (2004), and López-García and Puente (2006)).

An international comparison of business insolvency rates also reflects the low level of use of insolvency proceedings by the self-employed and microfirms (firms that employ fewer than 10 persons) in Spain, although here there is less evidence available. In the case of the self-employed (see Table 2), in 2019 there were 2.2 insolvencies per 10,000 self-employed in Spain, compared with 31.8 in France and 74 in England and Wales.⁸ In the case

⁷ To enhance the cross-country comparison, exits of firms in sectors with a high public sector presence (education, healthcare, social activities and personal services), are not included, as in these sectors companies may be dissolved for reasons unrelated to their economic solvency.

⁸ Sources: INE, Altares (2019), Eurostat and The Insolvency Service.

Table 1 **INSOLVENCY RATES IN 2006 AND 2010**

		2006	
	Insolvency rate (a)	"Conditional" insolvency rate (b)	Insolvency rate (a)
Poland	1.79	0.00	1.85
Spain	2.56	0.43	14.62
Czech Republic	5.43	1.19	6.55
Singapore	5.95	-	5.62
Brazil	5.95	2.73	5.92
Greece	6.81	-	10.18
South Korea	7.78	-	4.77
Hong Kong	8.10	-	4.92
Taiwan	10.02	-	4.64
China	11.17	-	7.49
Portugal	15.01	1.50	37.40
taly	25.48	4.03	25.33
Canada	29.83	9.23	16.77
Slovakia	32.66	4.54	14.95
United States	33.46	4.82	97.83
reland	53.39	3.19	86.02
Sweden	67.13	17.95	75.30
Denmark	67.61	9.50	207.40
Netherlands	79.60	12.39	84.14
Japan	86.59		87.88
Norway	95.51	19.64	126.38
Germany	96.31	12.22	89.11
-inland	96.64	11.69	105.93
Belgium	107.24	30.03	124.11
United Kingdom	114.69	12.19	137.34
Hungary	134.96	16.75	305.27
Switzerland	151.58	43.58	172.46
France	178.59	28.55	216.62
Luxembourg	231.62	30.57	307.64
Austria	239.81	28.77	212.01
Russia	-	-	33.56
Australia	-	-	56.49
Estonia	-	-	165.73
_ithuania	-	-	255.48
_atvia	-	-	368.44

SOURCE: García-Posada and Mora-Sanguinetti (2012).

<sup>a Number of business insolvency proceedings divided by the stock of firms, multiplied by 10,000.
b Number of business insolvency proceedings divided by the number of firms that exit the market, as a percentage.</sup>

Table 2 INSOLVENCY RATES, BY LEGAL FORM, IN 2019

Insolvency rates (per 10,000 firms)	Spain	France	England and Wales
Total	13.3	107.6	75.7
Self-employed	2.2	31.8	74.0
Limited liability companies	32.4	181.1	
Other legal forms	3.3	447.5	

SOURCES: INE, Altares (2019), Eurostat and The Insolvency Service.

of microfirms (see Table 3), in 2019 there were 9.5 insolvencies per 10,000 microfirms in Spain, 11 times fewer than in France where there were 104.8. In the case of firms with 10 or more employees, Spain's insolvency rates are also lower than those of France, although the difference is smaller: 65.8 compared with 179.2, i.e. the Spanish insolvency rate is 2.7 times lower than the French rate in this business segment. Considering that 90.5% of Spanish firms are microfirms, and that the self-employed account for 55% of all Spanish firms, these figures suggest that the main reason for the limited use of insolvency proceedings in Spain, shown in Table 1, is the low insolvency rate among microfirms and sole proprietors.

The low rate of use of insolvency proceedings by the self-employed and small firms is essentially on account of two factors: (i) the inefficiency of the insolvency system, reflected in how slow the proceedings are, which is a result, at least in part, of congestion in the Mercantile Courts; and (ii) the lack of appeal that the system has for individuals and owners of microfirms, considering how difficult it is to obtain a discharge of debts, despite the improvements made over the last five years. As regards the inefficiency of the system, insolvency proceedings are very lengthy. According to García-Posada and Vegas (2018), who use a sample of more than 44,000 insolvencies from 1 September 2004 (the date of entry into force of the Insolvency Law) to 16 February 2016, the average duration of insolvency proceedings was around 40 months. The available evidence suggests that the duration of insolvency proceedings in other European countries, such as France and the United Kingdom, is considerably shorter (12 and 14 months, respectively). This has not changed in recent years, which have been marked by economic recovery and a decline in the number of insolvencies: on internal Banco de España estimates, the average duration of insolvency proceedings in Spain in 2019 was almost four years.

Regarding the appeal of insolvencies for individuals, be they self-employed or owners of small firms, as indicated above, two channels were introduced in two reforms of the Insolvency Law, and therefore under court supervision: immediate discharge of debt

⁹ Figures at 1 January 2019. Source: Central Companies Directory (DIRCE-INE).

¹⁰ For insolvencies closed and resulting in liquidation, the duration is the difference (in days) between the date of closure of the proceedings and the date on which the court declaration of insolvency was made. For insolvencies resulting in a restructuring agreement, the duration is calculated as the difference (in days) between the date of approval of the agreement and the date on which the declaration of insolvency was made.

¹¹ Source: García-Posada and Vegas (2018).

Table 3 INSOLVENCY RATES, BY FIRM SIZE, IN 2019

Insolvency rates (per 10,000 firms)	Spain	France
Total	13.3	107.6
Nine or fewer employees	9.5	104.8
Ten or more employees	65.8	179.2

SOURCES: INE, Altares (2019), Eurostat and The Insolvency Service.

following liquidation of the debtor's assets, and the fresh-start mechanism. Immediate discharge of debt (introduced in 2013)¹² allows debtors to have their unpaid claims forgiven – excluding public claims (essentially taxes and social security contributions) which cannot be discharged – after liquidating their non-exempt assets to pay creditors, provided that all preferential, secured and privileged credit,¹³ and at least 25% of all unsecured credit,¹⁴ has been settled (this last condition does not apply if the debtor has unsuccessfully attempted to reach an out-of-court payment agreement). Accordingly, this system only permits discharge of unsecured and subordinate credit.¹⁵

As it was difficult to satisfy these conditions, an alternative system – the fresh-start mechanism – was introduced in the 2015 reform. ¹⁶ In this case, if business owners are unable to settle all the above-mentioned claims by liquidating their assets, they may submit to a five-year repayment plan. If they agree to do so, their unsecured and subordinate credit will be discharged (except for any public or alimony claims). In the case of claims secured with collateral, the part not settled by enforcement of the collateral will also be discharged. The repayment plan consists of settling non-discharged debts (preferential and privileged credit and other public claims and alimony claims) over the five years following the closure of the insolvency. Upon expiry of that period, and if the repayment plan has not been complied with in full, the judge hearing the insolvency proceedings may declare any unpaid claims to be definitively discharged, provided the debtor has made a substantial effort to comply, understood as having assigned at least 50% of his/her non-exempt assets¹⁷ to compliance with the plan. To benefit from discharge following a repayment plan, debtors must satisfy

¹² Law 14/2013 of 27 September 2013 on support for entrepreneurs.

¹³ Preferential credit includes wages for the last month of business activity, the cost of the proceedings, including remuneration for the insolvency administrator and for attendance and representation of the debtor, and also any new debts assumed by the firm in the pursuit of its activity after the insolvency declaration has been made, including workers' claims, and 50% of any fresh money, i.e. any new funding granted in the framework of a refinancing agreement. Secured credit refers to secured claims of all kinds. Privileged credit refers to other claims deriving from employment relationships, as well as those of tort creditors and public sector creditors, up to a set limit, and 50% of any fresh money.

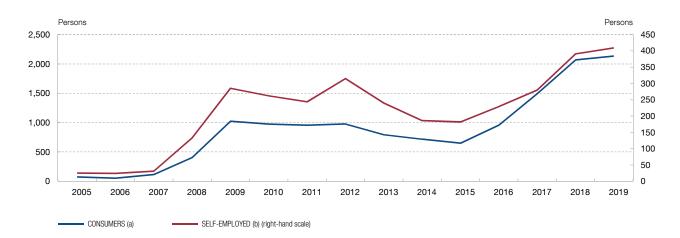
¹⁴ Credit facilities, trade credit, credit cards, consumer loans, etc.

¹⁵ Subordinated credit includes debts with persons who have special relationships with the insolvent firm (directors, shareholders, etc.) and some other types of claims, such as interest, penalties, fines, etc.

¹⁶ Royal Decree-Law 1/2015 of 27 February 2015 on the fresh-start mechanism, reducing the debt burden and other social measures.

¹⁷ Non-exempt assets are income below the national minimum wage and a certain percentage of income over that amount, pursuant to the provisions of Article 607 of the Civil Procedure Law.

Chart 1
NUMBER OF INSOLVENCY PROCEEDINGS FOR CONSUMERS AND THE SELF-EMPLOYED



SOURCE: Bankruptcy Proceedings Statistics (INE).

- a Consumers: individuals with no business activity.
- **b** Self-employed: individuals with business activity.

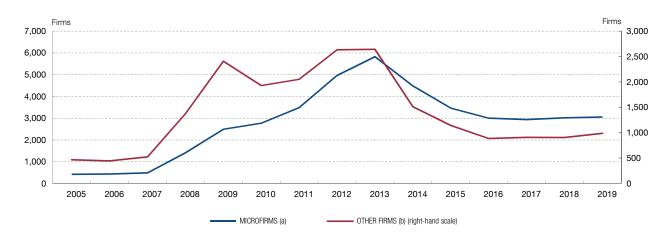
a series of requirements including, in particular, not having obtained a debt discharge in the last ten years and not having rejected an offer of employment in accordance with their abilities in the four years prior to the insolvency.¹⁸

The introduction of the fresh-start mechanism in 2015 probably contributed to the significant increase in insolvency proceedings, both among sole proprietors and, to a greater extent, consumers (see Chart 1), against a backdrop of economic expansion in Spain. Insolvencies among the self-employed rose from 182 in 2015 to 409 in 2019, a comparative increase of 125%. However, the absolute figures remain very low and, as indicated earlier, insolvency rates among this group are very low in comparison with those of other European countries (see Table 2). Consumer insolvencies rose from 649 in 2015 to 2,135 in 2019, an increase of 229%. However, these numbers remain low by international standards (see Table 4). Thus, in 2019, there were 0.5 consumer insolvencies per 10,000 inhabitants in Spain, compared with 2.5 in England and Wales. Lastly, the introduction of the fresh-start mechanism appears to have had no impact on the use of insolvencies by microfirms (see Chart 2). Specifically, between 2015 and 2019, microfirm insolvencies declined by 12%, while those of all other firms (i.e. those with 10 employees or more) fell by 14%.

Accordingly, it seems that insolvency proceedings remain unattractive to sole proprietors and small firms, despite the improvements made to the Insolvency Law in recent

¹⁸ In any event, both immediate discharge following liquidation and discharge of debt following a repayment plan will be provisional for the five years following its granting. If, during that period, the debtor ceases to comply with any of the conditions for debt discharge, his/her economic situation improves substantially as a result of fortuitous gains (e.g. lottery winnings or inheritance) or undeclared assets or income are discovered, the discharge will be revoked.

Chart 2
NUMBER OF INSOLVENCY PROCEEDINGS, BY FIRM SIZE



SOURCE: Bankruptcy Proceedings Statistics (INE).

a Microfirms: firms that employ fewer than 10 persons.

b Other firms: firms that employ 10 or more persons.

years. Various explanations for this have been put forward. One factor, according to the insolvency professionals interviewed by Van Hemmen (2020a), is that public claims, which make up a large part of the debt of microfirms and the self-employed, cannot be discharged.¹⁹ However, this cannot be the only factor since, as indicated above, rates of consumer insolvencies, where neither tax nor social security debts typically account for a large part of the liabilities, are also low by international standards. A second factor, according to Van Hemmen (2020a), is the excessive duration of the repayment plan envisaged in the fresh-start mechanism (five years to definitive discharge), and also its stringency, given that it requires that an offer of employment in accordance with the abilities of the consumer concerned has not been rejected in the preceding four years (which is, moreover, very difficult to verify). A third factor, mentioned by both Van Hemmen (2008) and García-Posada and Mora-Sanguinetti (2014), is the cost of the proceedings (legal costs, remuneration for insolvency administrators and lawyers), which is a further deterrent, as it is high and largely made up of costs that are fixed or not sufficiently dependent on the amount of debt and assets. Accordingly, sole proprietors and microfirms (which constitute the great majority of the Spanish productive system) and their creditors tend to use private debt renegotiations and alternative debt enforcement mechanisms such as mortgage foreclosures, which are more flexible and less costly (García-Posada and Mora-Sanguinetti, 2014). Nevertheless, as indicated above, an efficient personal insolvency system would have an "insurance effect" that would encourage entrepreneurship and innovation by sole proprietors and microfirms.

¹⁹ This could explain the greater increase in consumer insolvencies than in sole proprietor insolvencies since the fresh-start mechanism was introduced in 2015 (see Chart 1). It should also be noted that consumer insolvencies fall within the competence of the Courts of First Instance, which tend to be less congested than the Mercantile Courts (Celentani and Gómez Pomar, 2020).

Table 4
INSOLVENCY RATES FOR CONSUMERS AND THE SELF-EMPLOYED IN 2019

Insolvency rates (per 10,000 people)	United Kingdom	England and Wales	Spain	
Consumers and the self-employed	20.70	20.5	0.5	
Consumers		2.5	0.5	

SOURCES: INE, Altares (2019), Eurostat and The Insolvency Service.

In consequence, firms generally use insolvency proceedings only as a last resort. This means that the great majority of insolvencies (93% according to García-Posada and Vegas, 2018)²⁰ end in liquidation, because when firms file for insolvency their financial situation is already extremely vulnerable.21 García-Posada and Vegas (2018), who use a broad sample of firms that filed for insolvency between September 2004 and August 2016,22 find that these firms generally have high losses. Specifically, on average, they have a very negative (-27%) net profit to total asset ratio (ROA) and a negative (-6%) interest coverage ratio (ICR),23 well below the value of one, the benchmark generally used to indicate debt servicing problems. In addition, their current ratio (current assets to current liabilities) is also slightly below one, which likewise suggests debt servicing problems. Moreover, the average firm filing for insolvency is also highly indebted, with a debt-to-asset ratio of 106%, and 47% of these firms have negative equity. However, according to the same study, the financial situation of the few firms that achieve a restructuring agreement with their creditors (7% of the total) is notably different from that of firms that are liquidated, showing far fewer signs of deterioration. Thus, on average, firms that obtained a restructuring agreement posted ROA of -16% and a debt-to-asset ratio of 89%, and 26% of these firms had negative equity. By contrast, those which were liquidated had, on average, ROA of -28% and a debt-to asset ratio of 107%, and 47% had negative equity. These figures suggest that insolvency proceedings in Spain are able to distinguish between viable and non-viable firms.

The pre-insolvency arrangements for the self-employed and small firms (out-of-court payment agreements) are also not particularly attractive. The possible beneficiaries of these agreements are consumers, sole proprietors whose estimated liabilities are not in excess of €5 million and non-financial corporations that satisfy certain conditions (fewer than 50 creditors, estimated liabilities not in excess of €5 million and assets not in excess

²⁰ Other studies have similar findings. Thus, according to Celentani et al. (2010), between 2004 and 2008, out of more than 6,000 insolvencies, a restructuring agreement was reached in only 316 cases, which is just 5% of the total. According to Van Hemmen (2014), between 2006 and 2012 this figure ranges between 5% and 10% per year.

²¹ Indeed, "express insolvency" proceedings (concurso exprés) are not infrequent. These are designed for firms that have no assets to be liquidated, or firms that have assets whose liquidation value is insufficient to cover the cost of ordinary insolvency proceedings. In the "express" proceedings, once the court has examined the claim filed, and provided the necessary conditions are met, both the file and the insolvency proceedings are closed and the firm is immediately dissolved, with no liquidation of assets since, in effect, there are no assets.

²² Obtained from Mercantile Registers and the Banco de España's Central Balance Sheet Data Office.

²³ ICR = (Gross operating profit + interest income) / Interest expenses.

of €5 million). The essence of these arrangements is that, through an insolvency mediator,²⁴ the debtor and the creditors reach an agreement (repayment plan) without having to resort to insolvency proceedings. One advantage over a private debt renegotiation is that in out-of-court payment agreements, creditors cannot bring court or out-of-court enforcement proceedings against a debtor's assets for up to a period of three months while the debtor negotiates the agreement. Another advantage is that out-of-court payment agreements may be imposed on dissenting creditors (those who do not sign up to an agreement) if certain voting majorities are achieved. However, if the repayment plan is rejected by creditors, "subsequent" insolvency proceedings (concurso consecutivo) are opened to liquidate the assets of the business owner or firm concerned.

The empirical evidence shows that out-of-court payment agreements are very rarely used. In the case of firms, on Van Hemmen's data (2020b), between 1 March 2015 and 31 March 2020 only 93 out-of-court payment agreements were initiated. In addition, the firms that use these payment agreements have very similar financial ratios to those that file for insolvency, so the evidence does not appear to show that out-ofcourt payment agreements are channelling the debt restructurings of firms that are more viable than those that file for insolvency, which, as indicated earlier, are in almost all cases eventually liquidated. According to Van Hemmen (2020a), there are two reasons why outof-court payment agreements are so rarely used. First, as indicated above, debts with public creditors (tax authorities, social security, etc.) generally account for a very large part of the debts of microfirms and the self-employed, but negotiation of these debts is beyond the scope of out-of-court payment agreements. Second, there is generally little economic incentive for possible mediators to recommend an out-of-court payment agreement to potential beneficiaries, as remuneration tends to be very low, so most mediators neither recommend this procedure nor inform the debtors of its existence. In consequence, for the self-employed and small business owners, out-of-court payment agreements essentially serve to achieve total discharge of unsecured credit in the subsequent insolvency proceedings. As explained above, if they do not attempt to reach an out-of-court payment agreement, in addition to preferential, secured and privileged credit, they will have to pay at least 25% of unsecured credit. If they attempt but fail to reach an out-of-court payment agreement, they will not have to.

In the case of pre-insolvency arrangements for companies of a certain size, refinancing agreements are debt renegotiations that, subject to certain creditor voting majorities that must be verified by an auditor, are irreversible.²⁵ This means that no creditor may ask the judge to cancel the agreements, claiming that they are against the law or prejudicial to other

²⁴ The insolvency mediator is appointed by the notary, the mercantile registrar or the committee designated by the Chamber of Commerce from the official list of the Register of Mediators and Mediation bodies held by the Ministry of Justice.

²⁵ The auditor must verify that the agreement is backed by 3/5 of the liabilities or by 51% of the financial liabilities. Nevertheless, if this is not the case, any refinancing agreement, of an individual creditor or group of creditors, will be irreversible provided that a series of accounting and financial conditions are met, designed to ensure that the agreement improves the financial situation of the debtor (a limit on the interest rate applicable, a condition that the proportion of assets to claims increases, etc.).

creditors.²⁶ Therefore, refinancing agreements afford greater protection to the claims they cover than private renegotiations. This provides creditors with greater legal security and is an incentive for the debts of troubled companies to be refinanced. In addition, as soon as the debtor informs the competent court that negotiations on a refinancing agreement have begun, all enforcement proceedings against assets that the firm needs to continue to pursue its activity are automatically stayed for the three months allowed under the Insolvency Law for an agreement to be reached, thus preventing the firm's productive capacity from being dismantled. These advantages are extended if the agreement is verified and approved by a judge and thus becomes a court-approved refinancing agreement (acuerdo de refinanciación homologado judicialmente). Specifically, court approval, in addition to rendering the agreement irreversible, allows the terms of the agreement to be imposed on dissenting creditors (those who did not sign up to the refinancing agreement), provided certain qualified majorities are achieved, i.e. if the agreement is signed by a sufficiently high percentage of the financial liabilities. As this includes secured creditors (the main creditors that can bring enforcement proceedings against the firm's assets), the court approval automatically stays all enforcement proceedings against assets that the firm needs to continue to pursue its activity throughout the duration of the refinancing agreement.

Although few firms achieved these refinancing agreements with their creditors (fewer than 200 per year, on the latest data available, corresponding to 2013),²⁷ those that did so were generally much larger than most firms filing for insolvency. For example, in 2013, firms that obtained a refinancing agreement had average assets of €177 million, compared with €6 million for firms that filed for insolvency (Van Hemmen, 2014). According to the same source, firms that achieved refinancing agreements were in a clearly better financial situation than those filing for insolvency. Specifically, in 2013, firms that obtained refinancing agreements had a median leverage ratio²⁸ of 82% and median ROA (return on assets) of 3%, compared with 93% and -6%, respectively, for firms that filed for insolvency. Also, 61.6% of firms that obtained refinancing agreements reported a loss in the year, compared with 77.7% of those that filed for insolvency. This seems to indicate that the refinancing agreements were achieving the aim for which they were designed, i.e. to restructure the debt of large companies with complex capital structures²⁹ in the initial stages of insolvency, when their financial situation has still not deteriorated significantly. Although the latest evidence is very limited, there is a widely shared perception among insolvency professionals that these agreements are effective and that they are no longer used only by large corporations.

²⁶ Under the Insolvency Law, a refinancing agreement may be terminated if it has caused financial damage to the firm and has served only to grant a creditor a privileged position for collection of his/her debt compared with other creditors in the event that the firm's assets are eventually liquidated in the insolvency proceedings. If a refinancing agreement is terminated, the creditors are considered to have acted in bad faith, the claims deriving from the refinancing become subordinate debt (last in the order of collection, at the same level as shareholders) and the creditors may be accused of fraudulent behaviour.

²⁷ See Van Hemmen (2009-2014). Before the 2014 reform (Royal Decree-Law 4/2014 of 7 March 2014 adopting urgent measures on corporate debt refinancing and restructuring), the report of an independent expert appointed by the Mercantile Registrar was needed to validate a refinancing agreement. Since that reform, the only requirement is that an auditor verify the prescribed voting majorities. This is why Van Hemmen's Insolvency Yearbooks, based on data from the Spanish Association of Property, Personal Property and Mercantile Registrars, no longer include information on these agreements.

²⁸ Defined as the ratio of financial debt to total assets.

²⁹ Abengoa would be a paradigmatic example.

3 Insolvency moratorium in Spain

Against the backdrop of the economic crisis triggered by COVID-19, in April the Spanish Government approved Royal Decree-Law 16/2020,³⁰ which establishes an insolvency moratorium for all debtors, be they firms or individuals. Specifically, it suspends until 31 December 2020 the requirement that debtors must file for insolvency, i.e. voluntary filing *(concurso voluntario)* and it prevents their creditors from initiating filings *(concurso necesario)* before that date. Other European countries, including Germany, the Czech Republic, Luxembourg, Portugal and France, have implemented this measure,³¹ while jurisdictions such as Italy, Switzerland and Turkey have temporarily suspended the possibility of creditor-initiated filings.³²

In normal circumstances, the Insolvency Law stipulates that the filing may be made by any of the creditors or by the debtor firm itself. Indeed, the debtor is required to file for insolvency within two months of becoming insolvent (presumed to be after three months of default on payment of taxes, social security contributions or wages). If no filing is made in the prescribed time, it is presumed not to be a "fortuitous" but rather a "guilty" insolvency (concurso culpable) for which the firm's management is responsible. This, among other penalties, may include the management being held personally liable for the debts of the firm that remain unpaid after its assets have been liquidated. Further, in voluntary filings, the insolvent firm continues to manage its assets and commercial activity, although its operations are supervised by the insolvency administrator. By contrast, in creditor-initiated filings, the firm's officers are relieved of their duties and the firm is managed by the administrator. Since the entry into force of the Insolvency Law, approximately 94% of insolvency proceedings have been voluntary, which reflects the strong incentives for debtors to file for insolvency before it is initiated by their creditors.³³

The requirement is aimed at preventing an excessive delay in commencing insolvency, to avoid the risk of the firm already being in a very precarious financial situation when proceedings are initiated. Nevertheless, the aforementioned empirical evidence shows that this aim is not usually achieved.

Although such an incentive scheme may make sense in normal economic circumstances, it seems clear that these arrangements are too strict in the context of the COVID-19 crisis. Thus, the insolvency moratorium aims to prevent firms with considerable short-term losses and financing shortfalls attributable to exogenous circumstances, but

³⁰ Royal Decree-Law 16/2020 of 28 April 2020 on procedural and organisational measures to address the impact of COVID-19 on the justice system (Official State Gazette (BOE) of 29 April 2020).

³¹ This measure has also been adopted in Russia, albeit only for companies in sectors especially affected by COVID-19 (such as transportation, culture, leisure and entertainment, tourism and hospitality) and for companies considered to be of strategic or systemic importance.

³² Countries opting for a middle path include Singapore (where creditors may initiate filings, albeit with more stringent criteria and provided that the debtor has not availed itself of the moratorium allowed for firms affected by COVID-19) and Australia and India (where creditor-initiated filings have been restricted through the application of more onerous requirements for creditors).

 $^{{\}bf 33} \quad {\bf Obtained \ from \ Bankruptcy \ Proceedings \ Statistics \ (INE)}.$

that have viable projects in the medium and long term, from being subject to insolvency proceedings and, potentially, liquidation at times of extreme economic uncertainty, when it is difficult to distinguish between viable and non-viable firms. Consequently, its purpose is the same as that of other economic policies adopted during this crisis (Official Credit Institute guarantee programmes, moratoria on taxes and social security contributions, rental and mortgage payment moratoria, etc.) that aim to prevent a temporary negative liquidity shock from becoming a solvency problem. Indeed, the moratorium has notably reduced the number of insolvencies (remember that debtors may still file for insolvency, they are just not required to do so): in the first three quarters of 2020 there were 4,290 proceedings, compared with 5,478 in the same period in 2019.³⁴ It has also prevented an avalanche of insolvency filings that would have brought the Mercantile Courts to a standstill.

However, as with some of the other measures mentioned, if maintained over time the insolvency moratorium may contribute to an increase in the survival rate of non-viable firms which, in the absence of certain financial support measures (bank refinancing or new credit from their contractual counterparties), would disappear within a short period of time. In economic literature, these are frequently called "zombie firms". There is evidence that this phenomenon reduces profits for other firms, lowers investment and employment growth, discourages the entry of new companies and triggers a poor allocation of productive resources and productivity losses (Caballero et al. (2008); McGowan et al. (2017); McGowan et al. (2018); Acharya et al. (2019); Acharya et al. (2020)).

Specifically, "zombie lending" is based on the link between non-viable firms and poorly capitalised banks, as these banks have incentives to refinance zombie firms ("evergreening") so as to avoid an increase in their non-performing loans and having to record provisions,35 as part of a "gambling for resurrection" strategy.36 Further, recent literature (Andrews and Petroulakis, 2019) shows how inefficient insolvency systems (in general, those that are lengthy and costly), which hamper debt restructuring and reduce claim recovery rates, amplify this phenomenon. The reasoning is simple. In the event of default by a zombie firm, the creditor bank has two options: (i) it may participate in the insolvency and be required to classify all the credit to the firm in question as non-performing, waiting years to recover a small part of these claims; or (ii) it may refinance the debt with this firm, even if it is non-viable in the medium term, and thus avoid recognising the corresponding loss on its own balance sheet. Therefore, the opportunity cost of an evergreening strategy is especially low in inefficient insolvency systems. Consistent with this logic, McGowan et al. (2017) find that reforms to insolvency systems that smooth corporate debt restructuring and reduce the costs associated with sole proprietor insolvency decrease the share of capital held by zombie firms. This reallocation of capital normally increases the productivity of other firms.

³⁴ Obtained from Bankruptcy Proceedings Statistics (INE).

³⁵ However, under the current IFRS 9, refinancing implies a presumption of a "significant increase in credit risk", entailing a substantial rise in provisions.

³⁶ There is also evidence that these firms make strategic defaults. In other words, they decide to stop repayments on loans granted by poorly capitalised banks so as to obtain a restructuring, to increase the amount of such loans or extend their duration (Mayordomo et al., 2020b).

This reasoning can be applied to the insolvency moratorium, which may be interpreted as an extreme case of an inefficient insolvency system: it is not possible to restructure viable firms' debt or liquidate non-viable firms, unless such action is permitted or instigated by the firms themselves. Consequently, a careful assessment should be made of a possible extension to the insolvency moratorium beyond end-2020, given that it could exacerbate the problem, with non-viable firms remaining in the market, presenting increasingly impaired balance sheets, and insolvency cases building up, to be resolved when the moratorium is finally lifted.

4 The post-moratorium insolvency scenario: possible alternatives

The probable increase in insolvency problems generated by the COVID-19 crisis will foreseeably lead to a significant rise in insolvency filings when the insolvency moratorium expires at the end of the year. Given how easily the Mercantile Courts become congested, it is important to analyse possible solutions. These should promote debt restructuring for insolvent firms that are viable in the medium term, facilitate the liquidation of non-viable firms and reduce the duration of insolvency proceedings, so as to avoid the depreciation of business assets and increase credit recovery rates for creditors.

a Short-term alternatives

One way of avoiding congestion in the Mercantile Courts as a consequence of the foreseeable rise in insolvency proceedings would be to encourage the use of pre-insolvency arrangements, namely refinancing agreements and out-of-court payment agreements. In the case of refinancing agreements, their function as an alternative mechanism to insolvency seems to be working well for firms of a certain size. However, more information and statistics on their recent use and characteristics (e.g. the duration of agreements, debt discharge percentages, the number of failed agreements that lead to insolvency proceedings, etc.) would be desirable, to assess their operation rigorously and see if there is room for improvement in any of their aspects. Any increase in their use would significantly ease the workload of the Mercantile Courts.

Conversely, the scant use of out-of-court payment agreements shows that they are not attractive to sole proprietors or the owners of small firms. As mentioned above, the literature has identified two main reasons. First, public debts cannot be negotiated through out-of-court payment agreements (contrary to the IMF's recommendations for the Spanish economy, 2013, 2014 and 2015). In this respect, Blanchard et al. (2020) have recently proposed a mechanism whereby public sector creditors (including the tax and social security authorities) could be involved in and could encourage debt restructuring, accepting larger reductions in the nominal amount of the debt than private creditors in certain circumstances.37 Second, the economic incentives for any mediators involved to recommend an out-of-court payment agreement to potential beneficiaries are very slim as the remuneration of this activity is very low, so that most choose not to recommend them and do not inform debtors of the existence of this procedure. Accordingly, one channel that could be explored is to boost the participation and performance of the professionals involved in pre-insolvency procedures and insolvency proceedings, by for example increasing the remuneration of insolvency mediators who are entrusted with managing and negotiating outof-court payment agreements,38 guaranteeing the remuneration of insolvency administrators

³⁷ Especially in the case of firms with a social value that exceeds their private value, since their liquidation would have very negative effects on their suppliers or on jobs.

³⁸ For example, during the Great Recession, the Basque regional government provided subsidies to professional advisers to instruct financially distressed firms on how to renegotiate their debts. For further information see: https://www.euskadi.eus/web01-tramite/es/contenidos/ayuda_subvencion/spri_resiste_2011/es_spri_r/es_arch.html (Spanish version only).

and increasing the scope of application of justice provided free of charge (the *turno de oficio* system) to the insolvency realm, since it would increase the supply of professionals in this area. Alternatively, the English-speaking world's "pro bono publico" system could be promoted, whereby a legal expert (in this case an insolvency mediator or administrator) performs their work voluntarily, free of charge.³⁹ Lastly, debtors should be informed of the existence of out-of-court payment agreements as a mechanism for renegotiating their debts and of their various advantages, such as the discharge of unsecured credits in the subsequent insolvency proceedings in the event of failure of the payment agreement.

b Long-term alternatives

The number of Mercantile Courts has increased since the introduction of the Insolvency Law, from 32 in 2006 to 68 in 2018, but does not appear to have kept pace with the demand for their services⁴⁰ (even though this remains moderate), given the high levels of congestion before the COVID-19 crisis (Van Hemmen, 2020a). Moreover, it should be noted that, although it is the Mercantile Courts that are competent to hear insolvency matters, 41 they also hear other matters in the areas of transport, maritime law and the protection of intellectual and industrial property rights. Consequently, the system appears to be stuck in a vicious circle of low capacity to administer justice, low demand for insolvency proceedings (which should not be confused with a low need on the part of firms for solutions to their insolvency problems) and, as a result, a small number of insolvency proceedings, that are generally resolved over lengthy periods and normally end in liquidation. This in turn dissuades viable firms from filing for insolvency, reducing the demand for such proceedings even further. Thus, according to Celentani and Gómez Pomar (2020), the Spanish insolvency system needs more resources, whether in the form of more Mercantile Courts or an improvement in the capacity of the existing ones through increased use of technology.⁴² This would prevent court congestion from resulting in longer insolvency proceedings, which are undesirable from the standpoint of administration of justice and also in view of the favourable effects on the volume and terms and conditions of credit that an efficient insolvency system would have. 43

At the same time, the scant use of personal insolvency proceedings by the selfemployed and small business owners may indicate shortcomings in their design. First, public debts cannot be discharged, which means that the repayment plan following such liquidation is highly demanding for the individual or business. Some analysts have pointed out that this exceptionality of public claims is questionable from the viewpoint of economic

³⁹ For example, in the United States, the rules of professional conduct of the American Bar Association recommend that attorneys should provide at least 50 hours of pro bono services per year.

⁴⁰ According to Mora-Sanguinetti and Garoupa (2015), GDP growth in the long term can be expected to increase the complexity of the economy (with ever more numerous and complex transactions) and therefore generate more legal disputes, with a consequent increase in the courts' workload.

⁴¹ Except in the case of non-business personal bankruptcies, which are heard by the Courts of First Instance.

⁴² Although the Mercantile Courts are included in the plan of action approved by the Council of Ministers on 7 July to address high levels of post-COVID litigation, the measures are not sufficiently forceful or well-financed to address the new insolvency challenges that will emerge when the moratorium on insolvency filings is lifted.

⁴³ For example, according to Ponticelli and Alencar (2016), a Brazilian insolvency law reform that strengthened creditors' rights had a greater impact, in terms of access to financing and business investment, in municipalities with less concested courts.

efficiency; the State is a diversified creditor, of all taxpayers, and is therefore, in principle, better placed than other creditors to absorb the loss associated with discharge. It is also questionable from the viewpoint of distributive justice, since the only two types of debt that cannot be discharged are public claims and alimony claims. Thus, discharge of public claims would boost the use of the fresh-start mechanism, while it should also have a relatively limited impact on the Treasury, given the small average public debt of the self-employed and microfirms and, especially, the precarious financial situation of such businesses when they file for insolvency, which results in very low credit recovery rates. Also, according to numerous experts and organisations such as the OECD (McGowan and Andrews, 2016), the repayment plan in the fresh-start mechanism is too long and severe. An option for improvement would therefore be to reduce the duration of the repayment plan, to three years for example (as in the German system), and to eliminate as a condition for eligibility that no job offer has been rejected. However, it should be noted that the establishment of a moderately demanding but feasible repayment plan reduces the moral hazard and opportunism problems that may arise in the case of some self-employed persons and small business owners. This benefits most sole proprietors, by reducing the risk premium that lenders charge on loans to this group and mitigating the possible credit constraints these individuals may face if creditors expect very low credit recovery rates following default (Berkowitz and White, 2004).

Lastly, according to Celentani and Gómez Pomar (2020), as a supplementary measure, special insolvency mechanisms (fast-track procedures) should be designed for microfirms and the self-employed that are more rapid and less costly than the insolvency proceedings for larger firms. These mechanisms can be used by very small firms and the self-employed because they have a simpler capital structure than larger firms: for example, they usually have a smaller number of creditors. Also, it would be advisable to establish, as in other countries (e.g. France, the United Kingdom, Ireland and the United States), very-low-cost, fast procedures to process and resolve the bankruptcies of individuals⁴⁴ with low levels of debt and of assets and income by means of discharge of their debts after the liquidation of their exempt assets.⁴⁵ This is because it may not be efficient, in terms of a cost-benefit analysis, to use extensive judicial resources in situations in which not only is the amount discharged limited (given the low level of debt), but also the income and assets, so that the alternative to immediate debt discharge (a repayment plan) will not substantially increase credit recovery rates.

⁴⁴ Probably both small business owners and consumers.

⁴⁵ In England and Wales and in Ireland, approximately 25% of judicial approvals correspond to simplified procedures for individuals (with or without business activity) with small debts (less than €15,000 in the case of England and Wales, and less than €20,000 in the case of Ireland). Obtained from Gómez Pomar and Celentani (2015).

Conclusions

There is a broad consensus in the literature regarding the fundamental role played by insolvency procedures in business activity and entrepreneurship, through numerous channels, such as encouraging the provision of credit and facilitating the restructuring of the debt of insolvent firms that are nonetheless viable and the liquidation of non-viable firms, with important implications for investment, innovation and overall economic productivity. However, in comparison with the insolvency systems in most European countries, the Spanish system has traditionally been characterised by the limited use that financially distressed firms make of it, especially small firms and sole proprietors. Some observers suggest that the underlying reason is that insolvency proceedings do not work well: they are usually lengthy, costly and almost always end in liquidation. In spite of the numerous amendments made to the Insolvency Law during the global financial crisis and the subsequent recession, including the introduction of pre-insolvency arrangements to resolve insolvency situations at an early stage, this state of affairs does not seem to have changed much.

This structural shortcoming of the Spanish economy has become particularly important against the backdrop of the current COVID-19 crisis and the severe impact it is having on the financial situation of firms and the self-employed, despite the numerous measures that have been taken to mitigate it by the State, the European authorities and the European Central Bank. In this context, in order to avoid a substantial increase in insolvency proceedings, which would bring the Mercantile Courts (already congested before the pandemic) to a standstill, the Government decreed an insolvency moratorium. Under this moratorium, debtors are not obliged - and creditors are not able - to file for insolvency until the end of the year. The aim of this measure is to avoid the liquidation of firms with temporary liquidity problems that are nonetheless solvent in the medium term. However, in a context of heightened economic uncertainty, which makes it difficult to distinguish correctly between viable and non-viable firms, a possible side effect of the measure will be to permit a higher rate of survival of non-viable firms, which may have a negative impact in the medium term on the necessary reallocation of productive factors and the recovery of business activity in general. The measures proposed in this paper may help to relieve this problem when the insolvency moratorium is lifted.

References

- Acharya, V. V. and K. Subramanian (2009). "Bankruptcy Codes and Innovation", *The Review of Financial Studies*, Vol. 22, No 12, pp. 4949-4988.
- Acharya, V. V. and C. Hirsch (2019). "Whatever It Takes: The Real Effects of Unconventional Monetary Policy", *The Review of Financial Studies*, 32, pp. 3366-3411.
- Acharya, V. V. and C. Eufinger (2020). "Zombie Credit and (Dis-) Inflation: Evidence from Europe", mimeo.
- Altares (2019). Défaillances et sauvegardes d'entreprises en France.
- Andrews, D. and F. Petroulakis (2019). Breaking the Shackles: Zombie Firms, Weak Banks and Depressed Restructuring in Europe, ECB Working Paper No 2240.
- Armour, J. (2004). "Personal Insolvency Law and the Demand for Venture Capital", *European Business Organization Law Review*, 5, pp. 87-118.
- Armour, J. and D. Cumming (2008). "Bankruptcy Law and Entrepreneurship", *American Law and Economics Review*, Vol. 10, No 2, pp. 303-350.
- Berkowitz, J. and M. White (2004). "Bankruptcy and Small Firms' Access to Credit", Rand Journal of Economics, 35(1), pp. 69-84.
- Blanchard, A. and J. Pisani-Ferry (2020). "A New Policy Toolkit Is Needed as Countries Exit COVID-19 Lockdowns", PIIE Policy Brief, 20-8, June.
- Caballero, R., T. Hoshi and A. Kashyap (2008). "Zombie Lending and Depressed Restructuring in Japan", *American Economic Review*, 98(5), pp. 1943-1977.
- Celentani M. and F. Gómez Pomar (2010). The Spanish business bankruptcy puzzle and the crisis, FEDEA Working Paper No 2010-11.
- (2020). "Concursos y preconcursos de personas físicas, autónomos y microempresas: déjà vu all over again", InDret 3/2020.
- Fan, W. and M. White (2003). "Personal bankruptcy and the level of entrepreneurial activity", *Journal of Law and Economics*, 46(2), pp. 543-568.
- García-Posada, M. and J. S. Mora-Sanguinetti (2012). "El uso de los concursos de acreedores en España", *Boletín Económico*. December. Banco de España.
- (2014). "Are there alternatives to bankruptcy? A study of small business distress in Spain", SERIEs, Journal of the Spanish Economic Association, 5(2-3), pp. 287-332.
- García-Posada, M. and R. Vegas (2018). "Bankruptcy reforms in the midst of the Great Recession: the Spanish Experience", *International Review of Law & Economics*, Vol. 55, September, pp. 71-95.
- Giannetti, M. (2003). "Do Better Institutions Mitigate Agency Problems? Evidence from Corporate Finance Choices", Journal of Financial and Quantitative Analysis, 38(1), pp. 185-212.
- Gómez Pomar, F. and M. Celentani (2015). "Por fin, pero...", InDret 2/2015.
- Hart, O. (2000). Different Approaches to Bankruptcy, National Bureau of Economic Research, NBER Working Paper No 7921.
- IMF (2013). "Spain. 2013 Article IV Consultation", IMF Country Report No 13/245.
- (2014). "Spain. 2014 Article IV Consultation", IMF Country Report No 14/193.
- (2015). "Spain. 2015 Article IV Consultation", IMF Country Report No 15/232.
- La Porta, R., F. López de Silanes, A. Shleifer and R. W. Vishny (1997). "Legal Determinants of External Finance", Journal of Finance, 53, pp. 1131-1150.
- López-García, P. and S. Puente (2006). Business Demography in Spain: Determinants of Firm Survival, Documentos de Trabajo No 0608, Banco de España.
- Mayordomo, S., A. Moreno, S. Ongena and M. Rodríguez-Moreno (2020a). "Bank capital requirements, loan guarantees and firm performance", *Journal of Financial Intermediation*, forthcoming.
- Mayordomo, S., O. Rachedi, M. Rodríguez-Moreno and V. Saadi (2020b). "The night of the living dead: firm strategic default in bank loans", mimeo.
- McGowan, M. A. and D. Andrews (2016). *Insolvency regimes and productivity growth: a framework for analysis*, OECD Economic Department Working Papers Eco No 1309.
- McGowan, M. A., D. Andrews and V. Millot (2017). *Insolvency regimes, zombie firms and capital reallocation,* OECD Economic Department Working Papers Eco No 31.
- (2018). "The Walking Dead? Zombie Firms and Productivity Performance in OECD Countries", Economic Policy, pp. 687-736.
- Mora-Sanguinetti, J. S. and N. Garoupa (2015). "Do lawyers induce litigation? Evidence from Spain, 2001-2010", International Review of Law and Economics, 44, pp. 29-41.
- Morrison, E. (2009). "Bargaining around Bankruptcy: Small Business Workouts and State Law", *The Journal of Legal Studies*, Vol. 38, No 2 (June), pp. 255-307.

- Nuñez, S. (2004). "Salida, entrada y tamaño de las empresas españolas", Boletín Económico, March, Banco de España, pp. 53-60.
- Ponticelli, J. and S. Alencar (2016). "Court Enforcement, Bank Loans and Firm Investment: Evidence from a Bankruptcy Reform in Brazil", Quarterly Journal of Economics, 131(3), pp. 1365-1413.
- Qian, J. and P. Strahan (2007). "How Laws & Institutions Shape Financial Contracts: The Case of Bank Loans", Journal of Finance, 52(6), pp. 2803-2834.
- Rodano, G., N. Serrano-Velarde and E. Tarantino (2016). "Bankruptcy Law and Bank Financing", Journal of Financial Economics, Vol. 120, No 2, pp. 363-382.
- Van Hemmen, E. (2007-2014). Estadística concursal. Anuario 2006, Colegio de Registradores de la Propiedad y de lo Mercantil de España, Madrid (and subsequent editions).
- (2020a). "Acompañando la segunda oportunidad", Anuario de Derecho Concursal, No 50.
- (2020b). Estadística concursal. Anuario 2019, Colegio de Registradores de la Propiedad y de lo Mercantil de España, Madrid.
- White, M. (1994). "Corporate Bankruptcy as a Filtering Device: Chapter 11 Reorganizations and Out-of-Court Debt Restructurings", Journal of Law, Economics and Organization, 10, pp. 268-295.

Appendix: Insolvency Law Summary

1.1 Insolvency proceedings

The proceedings to deal with insolvency in Spain are currently governed by the 2003 Insolvency Law (*Ley Concursal*), which came into force on 1 September 2004.⁴⁶ This law was the first far-reaching renewal of insolvency legislation in more than a century. It replaced the provisions on bankruptcy (*quiebra*) and suspension of payments (*suspensión de pagos*) of the former Commercial Code of 1829 and the Suspension of Payments Law of 1922. However, the increase in insolvencies as a result of the global financial crisis highlighted various malfunctions in the system, which led to six reforms of the Insolvency Law between 2009 and 2015.⁴⁷

The Spanish insolvency system currently in force has one single insolvency proceeding (concurso de acreedores), although this has two variants, namely ordinary proceedings and shortened proceedings. The latter were initially intended for very small firms, but are currently used in most cases.⁴⁸ Insolvency proceedings can also be used by consumers, although this paper focuses solely on the case of firms and the self-employed.

Insolvency proceedings may be used by firms that have suspended payments and also by those that, although up to date with their obligations to their creditors, anticipate that they will imminently be unable to meet their payments. Any of a debtor company's creditors may file for insolvency, as may the company itself. The latter is required to file for insolvency within two months of becoming insolvent. The Insolvency Law presupposes insolvency in the event of default on payment of taxes, social security contributions or wages for three months. If no filing is made in the prescribed time, the insolvency is presumed not to be "fortuitous" but rather a "guilty" insolvency (concurso culpable) for which the firm's management is responsible, which may entail significant penalties, including the management being held personally liable for the debts of the firm that remain unpaid after its assets have been liquidated. Also, the degree of autonomy of the insolvent firm differs depending on which party files for insolvency. If the company itself files for insolvency (concurso voluntario), then it continues to manage its assets and its business activity, although its operations are supervised by the insolvency administrator. If the insolvency is filed by creditors (concurso necesario) the firm's officers are relieved of their duties and the firm is managed by the administrator. Since the entry into force of

⁴⁶ Law 22/2003 of 9 July 2003. The Consolidated Text of the Insolvency Law came into force on 1 September 2020, owing to the numerous amendments made to the original text. See Royal Legislative Decree 1/2020 of 5 May 2020, which approved the Consolidated Text of the Insolvency Law.

⁴⁷ See García-Posada and Vegas (2018) for a description and assessment of these reforms.

⁴⁸ The shortened proceeding is used in the following cases: a) for firms whose assets and liabilities are estimated not to exceed €5 million and that have fewer than 50 creditors; b) when there is an advance proposal for a restructuring agreement; and c) when a proposal for liquidation of the firm through its sale as a going concern is presented along with the petition. The shortened proceedings accounted for 91% of all insolvency proceedings in 2019, according to the INE's bankruptcy proceedings statistics.

the Insolvency Law, approximately 94% of insolvency proceedings have been voluntarily filed,⁴⁹ which reflects the strong incentives for debtors to file for insolvency before it is initiated by their creditors. Each insolvency filing is examined by a Mercantile Court judge who may accept or reject the petition.

The court declaration of insolvency, which commences the formal proceedings, automatically stays all unsecured credits, which – with very few exceptions – cease to accrue interest. Creditors whose claims are secured by assets used in the productive process of the debtor are also affected by the stay of enforcement, for at least one year or until a restructuring agreement that does not affect their rights has been approved.⁵⁰

Once insolvency has been declared, the initial phase of the proceedings commences, the purpose of which is to reduce information asymmetries between the various creditors and the debtor. The judge appoints an insolvency administrator, who shall be an attorney, an economist, an auditor or a commercial expert (titulado mercantil). The insolvency administrator performs various particularly important activities during the proceedings. Thus, the administrator is responsible for making a list of the debts and assets of the insolvent company, helping to determine whether it is viable. Also, as explained above, the administrator has broad powers of control over the firm, which depend on who filed for insolvency (i.e. whether it was a voluntary or creditor-initiated filing). The administrator also has to express an opinion on all the restructuring plans that may be presented and is responsible for drawing up the plan to liquidate the firm's assets, unless the debtor itself has submitted a prior liquidation plan that has been approved by the court.

After the initial phase, the insolvency proceedings enter the next phase, which ends either with a restructuring agreement between the creditors and the insolvent firm (a debt restructuring) or the liquidation of the firm (sale of the firm's assets).⁵¹ In the first case, the two parties are encouraged to reach an agreement under which the creditors recover the maximum proportion of credit possible and the company continues to operate. The agreement may be proposed either by the debtor or by the creditors – although in practice it is almost always proposed by the debtor (Celentani et al., 2010) – and must be accepted by a majority of the unsecured creditors in order to go ahead. Specifically, an agreement may envisage a reduction in the nominal amount of the debt, a deferral

⁴⁹ According to the INE's bankruptcy proceedings statistics. All insolvency proceedings between 2004 and 2019 are considered. Proceedings initiated in 2020 are not included in order to avoid possible distortions arising from the insolvency moratorium.

That is to say, creditors whose claims are secured by assets of the insolvent debtor that are used in its business activity or in a productive unit which it owns may not initiate enforcement of their security until a restructuring agreement has been approved that does not affect the exercise of their rights or one year has elapsed since the declaration of insolvency without liquidation having commenced. The actions already initiated in exercise of the rights referred to above shall be automatically stayed from the declaration of insolvency, even if announcements of the auction of the asset or right have already been published. Stay of enforcement will only be lifted and enforcement ordered to continue when evidence is submitted in the proceedings of a ruling by the insolvency judge that the assets or rights are not necessary for the continuity of the debtor's business activity.

⁵¹ There is also the possibility of selling the firm or part of the firm, as a productive unit, to a third party.

(delay in the payment schedule), a debt-equity swap (conversion of debt into participating loans,⁵² shares or other equity)⁵³ or the assignment of assets or rights in payment of claims, provided that they are not necessary for continuation of the firm's business activity. Approval of such agreements requires at least 50% or 65% of the unsecured liabilities to vote in favour, depending on the terms and conditions of the agreement.⁵⁴

If no proposed restructuring agreement is presented or the proposal is not approved, or if the approved agreement fails, the firm terminates its activities and the insolvency administrator submits a liquidation plan to the court, for the sale of the assets of the business to pay the creditors in the order of their ranking as prescribed by the Insolvency Law. In particular, the order of priority of claims is as follows: (i) preferential credit: these are the first claims to be paid, and include the wages corresponding to the last month of activity,55 the costs of the proceedings themselves, including remuneration for the insolvency administrator and for attendance and representation of the insolvent firm, any new debts contracted by the firm in the pursuit of its activities after the insolvency filing, including workers' claims,56 and 50% of any new funding granted within the framework of a refinancing agreement ("fresh money"); (ii) secured credit: claims of all types secured by assets of the insolvent firm; (iii) privileged credit: other claims deriving from employment relationships, as well as those of tort creditors and public sector creditors, up to a set limit, and 50% of any "fresh money"; (iv) unsecured credit: the residual category, which includes all claims not belonging to any other category; and (v) subordinated credit: the claims at the bottom of the ranking, which include debts to persons who have special relationships with the insolvent firm (directors, shareholders, etc.) and some other types of claim, such as interest, penalties, fines, etc.

1.2 Pre-insolvency arrangements

There are also two types of pre-insolvency arrangements, which were designed during the various reforms to the Insolvency Law. The purpose of these proceedings is to resolve insolvency problems detected early, before the financial situation of the firm becomes too serious and irreversible. One of them is the out-of-court payment agreement (acuerdo

⁵² A type of long-term loan characterised by the payment of variable-rate interest determined on the basis of the business performance of the borrower firm. The criterion to determine such performance may be net profit, turnover, total assets or any other that may be freely agreed by the contracting parties. Also, a fixed rate of interest may be agreed irrespective of the business performance.

⁵³ The conversion of debt into shares, other equity or participating loans is only possible in the case of creditors other than public sector entities and employees.

⁵⁴ Specifically, for a restructuring agreement to be able to contain reductions in the nominal amount of the debt of up to 50%, deferrals of up to five years or conversion of debt into participating loans with a maturity of five years, at least 50% of the ordinary liabilities must vote in favour. For an agreement to be able to comprise reductions in the nominal amount of the debt of more than 50%, deferrals of up to ten years, conversion of debt into participating loans with a maturity of ten years, conversion of debt into shares or other equity, or assignments of assets or rights in payment of claims, it is necessary for 65% of the ordinary liabilities to vote in favour.

⁵⁵ Up to no more than twice the amount of the national minimum wage.

⁵⁶ Including severance payments, and surcharges on benefits for breach of obligations in relation to health and safety at work, until the judge orders cessation of the professional or business activity, approves a restructuring agreement or declares the insolvency concluded.

extrajudicial de pagos), conceived in the 2013 reform⁵⁷ and improved in the 2015 reform,⁵⁸ for individuals⁵⁹ and small firms. The other is the refinancing agreement (acuerdo de refinanciación), introduced in the 2009 reform.⁶⁰ This has a variant, namely court-approved refinancing agreements, created in the 2011 reform⁶¹ and improved in one of the 2014 reforms,⁶² which give more protection to the debtor. Both alternatives are designed for companies of a certain size.

The possible beneficiaries of out-of-court payment agreements are consumers, sole proprietors whose estimated liabilities are not in excess of €5 million and non-financial corporations that satisfy certain conditions (fewer than 50 creditors, estimated liabilities not in excess of €5 million and assets not in excess of €5 million). The essence of these arrangements is that, through an insolvency mediator, appointed by the notary, the mercantile registrar or the committee designated by the Chamber of Commerce from the official list of the Register of Mediators and Mediation bodies held by the Ministry of Justice, the debtor and the creditors reach an agreement (the repayment plan) without having to resort to insolvency proceedings. One advantage over private debt renegotiations is that in out-of-court payment agreements, creditors cannot bring court or out-of-court enforcement proceedings against a debtor's assets for up to a period of three months while the debtor negotiates the agreement. Another advantage is that out-of-court payment agreements may be imposed on dissenting creditors (those who do not sign up to an agreement) if certain voting majorities are achieved. However, if the repayment plan is rejected by creditors, "subsequent" insolvency proceedings (concurso consecutivo) are opened to liquidate the assets of the business owner or firm concerned.

Refinancing agreements (acuerdos de refinanciacion) are debt renegotiations that are irreversible, subject to certain creditor voting majorities that must be verified by an auditor. ⁶³ This means that no creditor may ask the judge to cancel the agreements, claiming that they are against the law or prejudicial to other creditors. ⁶⁴ Therefore, refinancing agreements afford greater protection to the claims they cover than private renegotiations.

⁵⁷ Law 14/2013 of 27 September 2013 on support for entrepreneurs.

⁵⁸ Royal Decree-Law 1/2015 of 27 February 2015 on the fresh-start mechanism, debt burden reduction and other social measures.

⁵⁹ The 2013 reform only envisaged out-of-court payment agreements for businesses. The 2015 reform extended their use to individual debtors, including those without businesses.

⁶⁰ Royal Decree-Law 3/2009 of 27 March 2009 on urgent tax, financial and insolvency measures given the economic situation.

⁶¹ Law 38/2011 of 10 October 2011 on reform of Insolvency Law 22/2003 of 9 July 2003.

⁶² Royal Decree-Law 4/2014 of 7 March 2014 on urgent measures on the refinancing and restructuring of corporate debt.

⁶³ The auditor must verify that the agreement is backed by 3/5 of the liabilities or by 51% of the financial liabilities. Nevertheless, if this is not the case, any refinancing agreement, of an individual creditor or group of creditors, will be irreversible provided that a series of accounting and financial conditions are met, designed to ensure that the agreement improves the financial situation of the debtor (a limit on the interest rate applicable, a condition that the proportion of assets to debt claims increases, etc.).

⁶⁴ Under the Insolvency Law, a refinancing agreement may be terminated if it has caused financial damage to the firm and has served only to grant a creditor a privileged position for collection of his/her debt compared with other creditors in the event that the firm's assets are ultimately liquidated in the insolvency proceedings. If a refinancing agreement is terminated, the creditors are considered to have acted in bad faith, the claims deriving from the refinancing become subordinate debt (last in the order of collection, at the same level as shareholders) and the creditors may be accused of fraudulent behaviour.

This provides creditors with greater legal security and is an incentive for refinancing of debts of firms by lenders. In addition, as soon as the debtor informs the competent court that negotiations on a refinancing agreement have begun, all enforcement proceedings against assets that the firm needs to continue to pursue its activity are automatically stayed for the three months allowed under the Insolvency Law for an agreement to be reached, thus preventing the firm's productive capacity from being dismantled. These advantages are extended if the agreement is verified and approved by a judge (court approval), and thus becomes a court-approved refinancing agreement (acuerdo de refinanciación homologado judicialmente). Specifically, court approval, in addition to rendering the agreement irreversible, allows the terms of the agreement to be imposed on dissenting creditors (those who did not sign up to the refinancing agreement), provided certain qualified majorities are achieved, i.e. if the agreement is signed by a sufficiently high percentage of the financial liabilities. 65 As this includes secured creditors (which are the main creditors that can bring enforcement proceedings against the firm's assets), the court approval automatically stays all enforcement proceedings against assets that the firm needs to continue to pursue its activity throughout the duration of the refinancing agreement. As regards the terms of the refinancing agreements, the latter may include reductions in the nominal amount of the debt, deferrals, debt-equity swaps and deeds in lieu of foreclosure. Also, to encourage debtequity swaps, the claims of the new shareholders, as a consequence of such capitalisation, have higher priority than those of the existing shareholders.66

1.3 Insolvency proceedings for individuals: self-employed and small business owners

Lastly, we consider the insolvency arrangements for individual debtors, whether self-employed or owners of small companies. In the latter case, personal insolvency is linked to business insolvency, because even if the business activity is pursued through a limited liability company, the firm's debts are often also personal debts of the owner of the business, since lenders generally require personal or mortgage guarantees for the debts of the company from the members (Berkowitz and White, 2004; Mayordomo et al., 2020a). That is to say, in the case of microfirms, the reality is that limiting liability through incorporation as a company is very imperfect.

The 2013 individual insolvency reform (Law 14/2013) introduced the possibility of immediate debt discharge for business owners and consumers. This system allows debtors to have their unpaid claims forgiven (excluding public claims, ⁶⁷ which cannot be discharged)

Deferrals of up to five years and conversions of debt into participating loans with the same maturity can be imposed upon dissenting unsecured creditors (secured creditors) if the agreement has been signed by at least 60% (65%) of the financial liabilities, and deferrals of up to ten years, conversions of debt into participating loans with the same maturity, conversions of debt into shares, reductions in the nominal amount of the debt and assignments of assets or rights in payment may be imposed on such creditors if the agreement has been signed by at least 75% (80%) of the financial liabilities.

⁶⁶ Specifically, the claims of existing shareholders are classified as subordinated credit, while those of the new shareholders are unsecured credit.

⁶⁷ Essentially, tax and social security debts.

after liquidating their non-exempt assets to pay creditors, provided that all preferential,⁶⁸ secured⁶⁹ and privileged credit,⁷⁰ and at least 25% of all unsecured credit,⁷¹ has been settled. This last condition does not apply if the debtor has unsuccessfully attempted to reach an out-of-court payment agreement. Accordingly, this system only permits discharge of unsecured and subordinated credit.⁷² However, to benefit from immediate discharge the debtor must satisfy two requirements: that the insolvency has not been declared "guilty" and that the debtor has not been found guilty of fraud during the ten years prior to the insolvency.

Given the difficulty of satisfying the requirements of the aforementioned system, the 2015 individual insolvency reform introduced, as an alternative, the "fresh-start mechanism". In this case, if debtors are unable to settle all the above-mentioned claims by liquidating their assets, they may submit to a five-year repayment plan. If they agree to do so, their unsecured and subordinate credit will be discharged (except for any public or alimony claims). In the case of claims secured with collateral, the part not settled by enforcement of the collateral will also be discharged. The repayment plan consists of settling non-discharged debts (preferential and privileged credit and other public claims and alimony claims) over the five years following the closure of the insolvency. However, upon expiry of that period, and if the repayment plan has not been complied with in full, the judge hearing the insolvency proceedings may declare any unpaid claims to be definitively discharged, provided the debtor has made a substantial effort to comply, understood as having assigned at least 50%⁷³ of his/her non-exempt assets.⁷⁴ To benefit from discharge following a repayment plan, debtors must satisfy a number of requirements (apart from those necessary for immediate discharge): (i) they must co-operate during the insolvency proceedings; (ii) they may not have obtained a debt discharge within the preceding ten years; (iii) they may not have rejected an offer of employment in accordance with their abilities in the four years prior to the insolvency; and (iv) they must accept that this benefit will be recorded for five years in the Public Insolvency Register, with the possibility of public access.

In any case, both immediate discharge following liquidation and discharge of debts after a repayment plan are provisional for the five years after discharge is granted. If, during this period, the debtor ceases to comply with any of the requirements for debt discharge, his/her economic situation improves substantially on account of fortuitous gains (e.g. lottery winnings or inheritance) or undeclared assets or income are discovered, the discharge will be revoked.

⁶⁸ Including the wages corresponding to the final month of activity, the costs of the proceedings themselves, including the remuneration of the insolvency administrators and the new debts contracted by the firm in the pursuit of its activities after the insolvency filing.

⁶⁹ Claims of all types secured by assets of the firm.

⁷⁰ Other claims deriving from employment relationships, as well as those of tort creditors and public sector creditors, up to a set limit.

⁷¹ Credit cards, consumer loans, etc.

⁷² Subordinated credit includes debts with persons who have special relationships with the insolvent firm (directors, shareholders, etc.) and some other types of claims, such as interest, penalties, fines, etc.

⁷³ Except where there is risk of social exclusion, in which case this percentage is reduced to 25%.

⁷⁴ Non-exempt assets are income below the national minimum wage and a certain percentage of income over that amount, pursuant to the provisions of Article 607 of the Civil Procedure Law.

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