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Towards an optimal model of directors' duties in the zone of insolvency: an economic and comparative approach

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ABSTRACT

When a company becomes factually insolvent but it is not yet subject to a formal insolvency proceeding, the shareholders - or the directors acting on their behalf - may engage, even in good faith, in various forms of behaviour that can divert or destroy value at the expense of the creditors. For this reason, many jurisdictions impose special directors' duties in the zone of insolvency. From a sample of more than 25 countries from North America, Europe, Latin America, Africa, Middle East, and the Asia-Pacific, this article seeks to explore the most common regulatory models of directors' duties in the zone of insolvency existing around the world. It concludes by providing various policy recommendations to design directors' duties in the zone of insolvency across jurisdictions taking into account international divergences in corporate ownership structures, debt structures, level of financial development, efficiency of insolvency proceedings, and sophistication of the judiciary.

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KEYWORDS Directors' duties; zone of insolvency; shareholder opportunism; creditor protection

1. Introduction

When a company becomes factually insolvent but it is not yet subject to a formal insolvency proceeding, the shareholders – or the directors acting on their behalf – may engage, even in good faith, in various forms of behaviour that can divert or destroy value at the expense of the creditors. As a response, most jurisdictions around the world provide a variety of legal strategies to address this form of shareholder opportunism. One of these strategies is

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the imposition of special directors' duties in the zone of insolvency. For the understanding of this strategy, it is important to distinguish four stages in the financial situation of a company: (i) when a company is solvent; (ii) when a company is solvent but starts to face or foresee financial trouble ('zone of pre-insolvency' or 'vicinity of insolvency'); (iii) when a company is factually insolvent but it is not yet subject to a formal insolvency proceeding ('zone of insolvency'); and (iv) when a company is subject to a formal insolvency proceeding. From a comparative perspective, the most interesting divergences in the regulation of directors' duties are observed when a company starts to face financial trouble, and even more when it becomes factually insolvent. For this reason, this article will focus on the regulation of directors' duties in the zone of insolvency. However, it should be noted that the concept of insolvency differs across jurisdictions. For instance, while some countries define insolvency as the situation where the value of the liabilities exceeds the value of the company's assets ('balance-sheet test'), other jurisdictions focus on the ability of the company to pay its debts as they fall due ('cash-flow test').[1] Therefore, the triggering point for the imposition (if so) of these special directors' duties may vary depending on the definition of insolvency adopted in a particular jurisdiction.

Section 2 starts by analysing the misalignment of incentives generally existing when a company is factually insolvent but it is not yet subject to a formal insolvency proceeding. Section 3 explores different forms of shareholder opportunism potentially arising in the zone of insolvency. Section 4 analyses the regulatory framework of directors' duties during the transitional period from solvency to factual insolvency. Section 5 provides an overview of the primary regulatory models of directors' duties in the zone of insolvency observed internationally, highlighting the features, advantages and weaknesses of each model. Section 6 analyses the legal, economic and institutional factors affecting the desirability of a particular regulatory model of directors' duties in the zone of insolvency. Section 7 concludes.

[1]For instance, the United States formally embraces the concept of balance-sheet insolvency for entities other than partnerships and municipalities. See § 101(32)(A) 11 U.S. Code. However, this test has been subject to many controversies and interpretations. See *Matter of Foreman Industries, Inc.,* 59 B.R. 145 (Bankr. S.D. Ohio 1986); *In re Roblin Industries,* Inc., 78 F.3d 30 (2nd Cir. 1996); *Prod. Res. Group, L.L.C. v. NCT Group, Inc.*, 863 A.2d 772 (Del. Ch. 2004). The United Kingdom adopts both insolvency tests. See section 123 of the Insolvency Act. See also Kristin van Zwieten, *Goode on Principles of Corporate Insolvency Law* (Sweet & Maxwell, 5th edn, 2018) Chapter 4. In Australia, while section 95(A) of the Corporations Act seems to adopt a concept of insolvency based on a cash-flow test, the interpretation of this provision is far from clear. See David Morrison, 'When is a Company Insolvent?' (2002) 10 Insolvency Law Journal 4. In Germany, the concept of insolvency includes both tests. See § 64(1) GmbH-Gesetz and § 92(2) Aktiengesetz. In the literature, see Horst Eidenmüller, 'Trading in Times of Crisis: Formal Insolvency Proceedings, Workouts and the Incentives for Shareholders/Managers' (2006) 7 European Business Organization Law Review 239, 250. In Singapore, a recent decision of the Court of Appeals has established that the sole applicable test to determine whether a company is unable to pay debts is the cash-flow test. See *Sun Electric Power v RCMA Asia Pte Ltd* [2021] SGCA 60.

2. The misalignment of incentives existing in the zone of insolvency

When a company has sufficient assets to pay its debts, the shareholders are the residual claimants of the firm – that is, the group of investors enjoying the benefits and bearing the costs of the company's business decisions.[2] Therefore, they will want the directors to make value-maximising decisions, which generally implies pursuing those investment projects with the highest net present value ('NPV').[3]

However, when the firm's assets are insufficient to cover the company's debts, the incentives of the shareholders may change significantly.[4] Under this scenario, the creditors will become the new residual claimants of the firm.[5] In other words, they will experience any losses or gains associated with the company's actions. Nonetheless, until the company enters a formal insolvency proceeding, the creditors will have no formal power over the company's assets. Indeed, factually insolvent firms not yet subject to an insolvency proceeding are still run by the directors.[6] Therefore, as the shareholders continue to have the ability to appoint, remove and remunerate the directors, when they are not the directors themselves,[7] the directors will have incentives to run the company in the interest of the shareholders.[8] As a result,

[2]For the concept of residual claimants, see e.g. Thomas H. Jackson, *The Logic and Limits of Bankruptcy Law* (Harvard University Press 1986) 167.

[3]See eg John Armour and Jeffrey N Gordon, 'Systemic Harm and Shareholder Value' (2014) 6 Journal of Legal Analysis 35, 50–53.

[4]Robert Clark, 'The Duties of the Corporate Debtor to Its Creditors' (1977) 90 Harvard Law Review 505; Douglas Baird, 'The Initiation Problem in Bankruptcy' (1991) 11 International Review of Law and Economics 223; Riz Mokal, 'An Agency Cost Analysis of the Wrongful Trading Provisions: Redistribution, Perverse Incentives and the Creditors' Bargain' (2000) 59 Cambridge Law Journal 335; Paul Davies, 'Directors' Creditor-Regarding Duties in Respect of Trading Decisions Taken in the Vicinity of Insolvency' (2006) 7 European Business Organization Law Review 301.

[5]Within the creditors, some authors consider that the position of residual claimants is generally held by the body of unsecured creditors. See Jackson (n 2) 168. See also David Skeel Jr, 'The Nature and Effect of Corporate Voting in Chapter 11 Reorganization Cases' (1992) 78 Vanderbilt Law Review 461; Douglas Baird and Robert Rasmussen, 'Chapter 11 at Twilight' (2003) 56 Stanford Law Review 673, 696. However, see Lynn Lopucki, 'The Myth of the Residual Owner: An Empirical Study' (2004) 82 Washington University Law Quarterly 1341(concluding that no identifiable, single residual owner class exists in most reorganisations of large public companies).

[6]Even if a company initiates an insolvency proceeding, the directors can remain in office if, as it happens in some countries (e.g. United States), the insolvency legislation adopts a 'debtor in possession' governance model of insolvency proceedings. See Aurelio Gurrea-Martinez, 'The Future of Reorganization Procedures in the Era of Pre-Insolvency Law' (2020) 21(4) European Business Organization Law Review 829.

[7]These situations will often exist in the context of small firms and companies with controlling shareholders, which are the most common types of firms around the world. See Adriana de la Cruz, Alejandra Medina and Yun Tang, 'Owners of the World's Listed Companies' (2019) OECD Capital Market Series, Paris <http://www.oecd.org/corporate/ca/Owners-of-the-Worlds-Listed-Companies.pdf> accessed 17 May 2020; Gur Aminadev and Elias Papaioannou, 'Corporate Control around the World' (2020) 75(3) Journal of Finance 1191. For the prevalence of micro, small and medium-sized enterprises in most countries around the world, see The World Bank, 'Report on the Treatment of MSME Insolvency' (The World Bank 2017) <http://documents.worldbank.org/curated/en/973331494264489956/Report-on-the-treatment-of-MSME-insolvency> accessed 17 May 2020.

[8]Mokal (n 4); Davies (n 4).

in the context of financially distressed firms, there will be a misalignment of incentives between those running the company and those bearing the financial consequences of the company's actions. As mentioned in Section 3, this misalignment of incentives can exacerbate various types of opportunistic behaviour of shareholders vis-à-vis creditors.

3. Shareholder opportunism in financially distressed firms

When a company is factually insolvent, the shareholders can engage in various forms of behaviour that can destroy or divert value at the expense of the creditors. For the purpose of this article, all these forms of behaviour will be included in the concept of 'shareholder opportunism' even if, as it will be shown, some of them do not necessarily require bad faith on the part of the debtor.

The existence of shareholder opportunism in the zone of insolvency may take different forms. First, since the shareholders are no longer the residual claimants of the firm and they enjoy limited liability, they may have incentives to invest in risky projects in an attempt to 'gamble for resurrection'.[9] These projects often have a negative NPV. However, in the unlikely event of success, they can yield sufficient returns to turn around the company, allowing the shareholders to recover part of their investments. Therefore, as any losses associated with the project would be exclusively borne by the creditors but the shareholders can benefit from any increase in the firm's value, they will have incentives to pursue these projects.[10] Thus, companies would pursue investment projects that should not be undertaken, leading to a problem of overinvestment.[11]

Second, another factor potentially leading to shareholder opportunism in the zone of insolvency might be the desire to hide assets once the shareholders realise that the company is no longer viable.[12] Indeed, since the

[9]Michael Jensen and William Meckling, 'Theory of the firm: Managerial Behaviour, Agency Costs and Ownership Structure' (1976) 3 Journal of Financial Economics 305; Katherine Daigle and Michael Maloney, 'Residual Claims in Bankruptcy: An Agency Theory Explanation' (1994) 37(1) Journal of Law and Economics 157; Barry Adler, 'A Re-Examination of Near-Bankruptcy Investment Incentives' (1995) 62 2(2) University of Chicago Law Review 575; John Armour, Gerard Hertig and Hideki Kanda, 'Transactions with Creditors' in John Armour, Luca Enriques et al, *The Anatomy of Corporate Law: A Comparative and Functional Approach* (3rd edn, Oxford University Press 2017) 111. However, the empirical evidence does not clearly support this 'gamble for resurrection hypothesis' generally assumed in the literature. See B Espen Eckbo and Karin S Thorburn, 'Control Benefits and CEO Discipline in Automatic Bankruptcy Auctions' (2003) 69 Journal of Financial Economics 227; Assaf Eidorfer, 'Empirical Evidence of Risk Shifting' (2008) 63(2) The Journal of Finance 609; Pablo Hernandez, Paul Povel and Giorgo Sertsios, 'Does Risk Shifting Really Happen?' (2015) Working Paper <https://pablohernandez-lagos.com/wp-content/uploads/2014/09/Hernandez_Povel_Sertsios_v-2-26-2015.pdf> accessed 15 July 2020; Erik Gilje, 'Do Firms Engage in Risk-Shifting? Empirical Evidence' (2016) 29 Review of Financial Studies 2925.

[10]Davies (n 4) 303–305.

[11]Elazar Berkovitch and E. Han Kim, 'Financial Contracting and Leverage Induced Over - and Under-Investment Incentives' (1990) 45 Journal of Finance 765, 766.

[12]Armour, Hertig and Kanda (n 9).

company will likely end up in a formal insolvency proceeding and the creditors will ultimately control the debtor's assets, the shareholders may have perverse incentives to hide or opportunistically divert assets towards related parties. This practice, generally known as 'asset diversion', implies the enrichment of the shareholders (or some of their related parties) at the expense of the creditors.[13]

Third, while financially distressed debtors may have incentives to overinvest, the opposite problem may also occur in a situation of insolvency. That is, insolvent firms may also have incentives to underinvest. An underinvestment problem occurs when a firm does not pursue investment projects with a positive NPV.[14] The shareholders may not have incentives to fund new investment projects with positive NPV since they know that, due to the company's level of debt, most (if not all) of the project's payoff will go to the creditors.[15] Therefore, the existence of this problem, generally known as 'debt overhang', may lead to a situation of underinvestment that can destroy value for the creditors and society as a whole.[16]

Finally, another form of shareholder opportunism can be found when non-viable firms are kept alive. This situation can be the result of three primary problems: (i) perverse economic incentives associated with moral hazard; (ii) lack of awareness about the viability of the company; and (iii) behavioural biases. Firstly, according to the economic hypothesis based on a moral hazard problem, the shareholders/managers may have incentives to keep non-viable firms alive because they are not bearing the costs associated with this decision. However, if the company's financial situation eventually improves, the shareholders might able to recover their investments. Therefore, the shareholders have incentives to engage in a 'waiting for resurrection' behaviour even if this decision destroys or diverts value at the expense of the creditors. Secondly, many shareholders/managers may decide to keep a non-viable firm alive because, due to a variety of factors (e.g. lack of diligence or lack of resources to get external advice), they do not even know that the company is no longer viable and therefore it should be shut down.[17] Thirdly, a non-viable firm can also be kept alive because of some behavioural factors such as over-optimism, over-confidence, attachment to the business,

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[13]ibid.

[14]See Steward Myers, 'The Determinants of Corporate Borrowing' (1977) 5 Journal of Financial Economics 147.

[15]ibid

[16]See, however, Robert Parrino and Michael Wiesbach, 'Measuring investment distortions arising from stockholder-bondholder conflicts' (1999) 53 Journal of Financial Economics 3 (finding little evidence of the debt overhang problem).

[17]For the concept of viability, and why non-viable (or economically distressed) firms should be liquidated and viable companies just facing a problem of financial distress should be reorganised, see Michelle J White, 'The Corporate Bankruptcy Decision' (1989) 3 Journal of Economic Perspectives 129; Alan Schwartz, 'A Normative Theory of Corporate Bankruptcy' (2005) 91 Virginia Law Review 1199, 1200–1201.

and status quo bias.[18] In these situations, even if the company's prospects and financial performance show that the business is no longer viable, many shareholders may be reluctant to take early actions to shut down the business.

These types of behaviour in the zone of insolvency can create several problems. *Ex post*, they can destroy or opportunistically divert value at the expense of the creditors. Moreover, failing to promote the quick liquidation of non-viable firms may hamper the efficient reallocation of assets in the economy. *Ex ante*, this opportunistic behaviour of the shareholders vis-à-vis creditors may make lenders more reluctant to extend credit. Thus, unless this problem is addressed in a credible manner, the risk of being subject to shareholder opportunism in the zone of insolvency may hinder firms' access to debt finance, ultimately hampering economic growth.[19] For this reason, most jurisdictions around the world have implemented various legal strategies to respond to this problem. This article will focus on one of them: the imposition of special directors' duties in the zone of insolvency.

4. Regulating the transition from solvent to factually insolvent firms

4.1. *Directors' duties in the zone of solvency*

When a company is solvent, and therefore the assets are sufficient to pay the company's debts, most creditors are no more than contractual counterparties.[20] Under these circumstances, corporate directors are generally required to act in the best interest of the company,[21] and most

[18]For an analysis of behavioural biases potentially affecting managerial decisions, see Dan Lovallo and Daniel Kahneman, 'Delusions of Success: How Optimism Undermines Executives' Decisions' (2003) 81 Harvard Business Review 56. In the context of directors' duties in the zone of insolvency, see Amir N Licht, 'My Creditor's Keeper: Escalation of Commitment and Custodial Fiduciary Duties in the Vicinity of Insolvency' (2020) European Corporate Governance Institute - Law Working Paper No 551 <https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3680768> accessed 18 January 2021 (emphasising managers' tendency to remain married to their original choices even when it is no longer rational).

[19]For an analysis of the impact of creditor protection on firms' access to finance, see Sergei A Davydenko and Julian R Franks, 'Do Bankruptcy Codes Matter? A Study of Default in France, Germany and the UK' (2008) 53 The Journal of Finance 565; Simeon Djankov, Oliver Hart, Caralee McLiesh and Andrei Shleifer, 'Debt Enforcement Around the World' (2008) 116(6) Journal of Political Economy 1105; John Armour, Antonia P Menezes, Mahesh Uttamchandani and Kristin van Zweiten, 'How Do Creditor Rights Matter for Debt Finance? A Review of Empirical Evidence' in Frederique Dahan (ed), *Research Handbook on Secured Financing of Commercial transactions* (Edward Elgar Publishing 2015) 3–25; Giacomo Rodano, Nicolas Andre Benigno Serrano-Velarde and Emanuele Tarantino, 'Bankruptcy Law and Bank Financing' (2016) 120(2) Journal of Financial Economics 363.

[20]John Armour, Gerard Hertig, and Hideki Kanda (n 9) 109.

[21]What a corporation is, and for whom a corporation should be run, is more unclear though. For some authors, corporations should be run for the interest of the shareholders as a whole. See Adolf Berle, 'Corporate Powers as Powers in Trust' (1931) 44 Harvard Law Review 1049; Michael C Jensen, 'Value Maximization, Stakeholder Theory, and the Corporate Objective Function' (2002) 12 Business Ethics

jurisdictions only impose mandatory disclosure obligations and restrictions on certain transactions that, without proper safeguards, can be used opportunistically to shift wealth from the creditors to the shareholders.[22] Apart from these constraints, corporate directors do not usually owe any formal duties to the creditors, at least directly.[23]

4.2. *Directors' duties in the zone of pre-insolvency*

Nonetheless, when a solvent company starts to face or foresee financial difficulties, this situation of pre-insolvency may lead to the imposition of special directors' duties.[24] In the United States, it was discussed whether corporate directors should be subject to special duties in the vicinity of insolvency.[25] However, this doctrine was strongly criticised[26] and it was not ultimately adopted.[27] In other parts of the world, however, the imposition of duties in the zone of pre-insolvency has been more successful.

The most comprehensive framework of directors' duties in the zone of pre-insolvency can be found in the European Union ('EU'). The recent Directive 2019/1023 of the European Parliament and of the Council of 20 June 2019

Quarterly 135; Lucian Bebchuk and Roberto Tallarita, 'The Illusory Promise of Stakeholder Governance' (2020) 106 Cornell Law Review 91. For other authors, however, the corporation should be run for the interest of the shareholders and other stakeholders. See E Merrick Dodd, 'For Whom Corporate Managers Are Trustees: A Note' (1932) 45 Harvard Law Review 1365; Margaret Blair and Lynn Stout, 'A Team Production Theory of Corporate Law' (1999) 85 Virginia Law Review 247; Colin Mayer, 'Shareholderism Versus Stakeholderism – a Misconceived Contradiction. A Comment on "The Illusory Promise of Stakeholder Governance" by Lucian Bebchuk and Roberto Tallarita' (2020) European Corporate Governance Institute – Law Working Paper No 522/2020, <https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3617847> accessed 7 September 2020.

[22]These transactions include share buybacks, fundamental changes, and distribution of dividends. For an overview of the general corporate law rules protecting creditors in solvent firms, see Armour, Hertig and Kanda (n 9) 119–127. Analysing the protection of creditors and other stakeholders in the context of fundamental changes, see Edward Rock, Paul Davies, Hideki Kanda, Reinier Kraakman and Wolf-Georg Ringe, 'Fundamental Changes', in John Armour, Luca Enriques et al, *The Anatomy of Corporate Law: A Comparative and Functional Approach* (3rd edn, Oxford University Press 2017) 171–201.

[23]In some countries, however, corporate directors may owe certain duties to the creditors even if the company is solvent. For instance, under New Zealand corporate law, directors must not act in a manner likely to create a substantial risk of serious loss to the company's creditors. See article 135 of the Companies Act of 1993.

[24]In addition to the imposition of special directors' duties in the zone of pre-insolvency, some countries are starting to require companies to adopt a system of 'early warnings' to detect circumstances that could give rise to a likelihood of insolvency. In fact, article 3 of the European Directive on Preventive Restructuring Frameworks requires the adoption of a system of early warnings. Therefore, all members of the European Union shall have in place a system for the early detection of a situation of financial distress.

[25]This discussion became more relevant after a controversial footnote included in a decision of the Delaware Court of Chancery. See *Credit Lyonnais Bank v Pathe Communications Corp,* No 12150, 1991 WL 277613 (Del Ch Dec 30, 1991), footnote 55.

[26]See Henry Hu and Jay Westbrook, 'Abolition of the Corporate Duty to Creditors' (2007) 107 Columbia Law Review 1321.

[27]*North American Catholic Educational Programming Foundation, Inc v Gheewalla*, 930 A.2d 92 (Del 2007).

('the Directive') requires all EU members to implement certain directors' duties in the zone of insolvency. Namely, article 19 of the Directive requires Member States to ensure that, where there is a likelihood of insolvency, directors have due regard, as a minimum, to the following: (i) the interests of creditors, equity holders and other stakeholders; (ii) the need to take steps to avoid insolvency; and (iii) the need to avoid deliberate or grossly negligent conduct that threatens the viability of the business.[28]

Therefore, the Directive changes the regulatory framework of directors' duties in the zone of pre-insolvency in EU countries in at least two main aspects. To start with, even if, under the general corporate law of some EU members, directors of non-insolvent firms were not required to take into account the interest of creditors and other stakeholders, they will need to do so if there is a likelihood of insolvency. In that regard, expanding the scope and beneficiaries of directors' duties in the zone of pre-insolvency seems to be consistent with the shift in the firm's residual claimants when a company transitions from solvency to insolvency. However, while this solution may sound theoretically convincing in the zone of pre-insolvency, it may create certain problems and challenges. On the one hand, expanding the beneficiaries of directors' duties can reduce managerial accountability without necessarily providing greater protection to the company's stakeholders.[29] On the other hand, if it is difficult to determine when a company becomes factually insolvent, identifying the 'vicinity of insolvency' can be even more problematic.[30] Therefore, imposing directors' duties when there is a 'likelihood of insolvency' can create uncertainty.

Further, when there is a likelihood of insolvency, the Directive also imposes a duty to take steps to avoid insolvency and requires corporate directors to avoid deliberate or grossly negligent conduct that threatens the viability of the business. Again, the adoption of these duties in the zone of pre-insolvency seems to pursue a reasonable goal: minimising the potential losses borne by the actors *likely* becoming the new residual claimants of the firm. However, it is not clear whether the imposition of these duties is needed, desirable, and even effective to yield the expected effects. First, in many jurisdictions, grossly negligent conducts usually lead to a breach of the duty of care.[31] Therefore, these special duties might not be needed. In fact, if the

[28]Supporting the existence of these special duties in the likelihood of insolvency, see Lorenzo Stanghellini, Riz Mokal, Christoph G Paulus and Ignacio Tirado (eds), *Best practices in European restructuring: Contractualised distress resolution in the shadow of the law* (Wolters Kluwer 2018) 20.

[29]Jensen (n 21); Bebchuk and Tallarita (n 21).

[30]The uncertainty generated by the imposition of directors' duties in the vicinity of insolvency was one of the several arguments against the adoption of directors' duties in the vicinity of insolvency in the United States. See *North American Catholic Educational Programming Foundation, Inc v Gheewalla*, 930 A.2d 92 (2007).

[31]Gross negligence can lead to a breach of the duty of care even in countries with a strong business judgment rule. See *Smith v. Van Gorkom* 488 A.2d 85 (Del. 1985). This risk for corporate directors will be higher in countries without a formal business judgment rule. For a comparative analysis of

Directive is not carefully implemented by EU members, the adoption of these new duties can create coordination problems with the existing framework of the duty of care at a national level. Second, if the shareholders still have skin in the game, as it generally happens in a situation of pre-insolvency, they should have incentives to avoid reckless decisions that can worsen the company's financial situation.[32] Therefore, even if, due to the limited liability, the shareholders take a level of risk potentially unwanted by the creditors (as it also occurs when the company is totally solvent), they still have incentives to internalise the costs of the company's business decisions, reducing the need to impose these special duties in the zone of pre-insolvency. Third, it is not clear whether these special duties in the vicinity of insolvency are economically desirable. On the one hand, the duty to take steps to avoid insolvency may discourage corporate directors from pursuing risky but value-creating investment projects that can ultimately generate growth. On the other hand, even in the context of gross negligence, it is not clear whether courts should review business decisions, especially taking into account that judges – like any other individuals – are subject to hindsight bias.[33] Therefore, a reasonable decision *ex ante* may look reckless *ex post*.[34] As a result, the desirability of the new framework of directors' duties in the zone of pre-insolvency adopted in the EU is far from clear.

4.3. *Directors' duties in the zone of insolvency*

From a comparative perspective, however, the most interesting divergences across countries are observed once a company becomes *factually insolvent* – that is, when it enters the 'zone of insolvency'.[35] In this situation, jurisdictions

the adoption of the business judgment rule, see Aurelio Gurrea-Martínez, 'Re-examining the law and economics of the business judgment rule: notes for its implementation in non-US jurisdictions' (2018) 18(2) Journal of Corporate Law Studies 417.

[32]Gurrea-Martínez, 'The Future of Reorganization Procedures' (n 6) 837.

[33]John Armour, Luca Enriques, Henry Hansmann, and Reinier Kraakman, 'The Basic Governance Structure: The Interests of Shareholders as a Class' in John Armour, Luca Enriques et al, *The Anatomy of Corporate Law: A Comparative and Functional Approach* (3rd edn, Oxford University Press 2017) 70.

[34]ibid.

[35]For an overview of directors' duties in the zone of insolvency from a comparative perspective, see Justin Wood, 'Director Duties and Creditor Protections in the Zone of Insolvency: A Comparison of the United States, Germany and Japan' (2007) 26(1) Penn State International Law Review 139; Lorenzo Stanghellini, 'Directors' duties and the optimal timing of insolvency: A reassessment of the recapitalize or liquidate rule' in P Benazzo, M Cera and S Patriarca (eds), *Il Diritto delle società oggi: Innovazioni e persistenze* (UTET Giuridica 2011); Carsten Gerner-Beuerle, Philipp Paech and Edmund Schuster, 'Study on Directors' Duties and Liability' (LSE Enterprise 2013) <xhttp://eprints.lse.ac.uk/50438/> 208-224 accessed 15 October 2020; Philip R Wood, 'Directors in the Twilight Zone V' (INSOL International 2017) <https://www.insol.org/_files/Publications/TwilightV/Twilight%20V%209%20May%20BM%20linked%202017.pdf> accessed 18 January 2021; Philip R Wood, Principles of International Insolvency (3rd edn, Sweet & Maxwell 2019), Chapters 30–34; Christopher Symes and Beth Nosworthy, 'The Components of Corporate Governance for Financially Distressed Firms' (2020) 35 Australian Journal of Corporate Law 98. See also UNCITRAL, Legislative Guide on Insolvency Law Part Four: Directors' Obligations in the Period Approaching Insolvency (United Nations Office 2013).

respond very differently. Section 5 analyses the primary models of directors' duties in the zone of insolvency observed in a sample of more than 25 countries around the world.

5. Regulatory models of directors' duties in the zone of insolvency

5.1. Duty to initiate insolvency proceedings

Many jurisdictions, including Austria, Czech Republic, France, Germany, Luxembourg, Poland, Portugal, Russia and Spain, require corporate directors to initiate insolvency proceedings once a company becomes insolvent.[36] While this regulatory model of directors' duties in the zone of insolvency is very common in Europe, it is rarely found in other parts of the world.[37]

Under this regulatory model, corporate directors are required to initiate an insolvency proceeding within a period of time that usually ranges from three weeks to two months from the time the directors knew, or ought to have known, that the company had become insolvent.[38] Failure to comply with this duty may expose the directors to several consequences. Depending on the country, these consequences can include disqualification, liability for damages, liability for the company's debts, and even criminal liability.[39]

There are several advantages associated with forcing financially distressed companies to initiate insolvency proceedings. First, if a company initiates an insolvency proceeding as soon as it becomes factually insolvent, the risk of opportunistic behaviour of shareholders/managers vis-à-vis creditors can be significantly reduced. After all, once a company is subject to a formal insolvency proceeding, the company's creditors will decide the fate of the firm,

[36] Aurelio Gurrea-Martinez, 'Insolvency Law in Times of COVID-19' (2020) 41 (7) Company Lawyer 191.

[37] Exceptions include Vietnam, Cambodia and the United Arab Emirates. In these countries, directors of factually insolvent firms are also subject to a duty to initiate insolvency proceedings. In Vietnam, see article 5.3 of the 2014 Bankruptcy Law. In Cambodia, see article 9 of the 2007 Insolvency Law. In the United Arab Emirates, see article 68 of the 2016 Federal Law on Bankruptcy.

[38] One of the shortest periods (three weeks) is found in Germany. See § 92(2) Aktiengesetz. One of the longest periods (two months with the possibility of getting an extension of up to four additional months) is found in Spain. See articles 5.1 and 595 of the Spanish Insolvency Act. Other countries, such as Poland and France, adopt a period somewhere in-between (e.g., 30 or 45 days). See article 21 of the Polish Bankruptcy Law (Act of 28 February 2003) and article L631-4 of the French Commercial Code. As mentioned in Section 1, it should also be noted that the definition of insolvency differs across jurisdictions. Therefore, this aspect will also lead to international divergences in terms of when the duty is triggered.

[39] For example, disqualification can be imposed in Spain. In Germany, failure to initiate insolvency proceedings within 3 weeks from the time the directors knew, or ought to have known, that the company was insolvent can expose the directors to criminal liability. In Spain and France, corporate directors can be liable for the company's debts under certain circumstances. For a general overview of the regime of directors' duties and liability in insolvency in the European Union, see Gerard McCormack, Andrew Keay, Sarah Brown and Judith Dahlgreen, 'Study on a New Approach to Business Failure and Insolvency: Comparative Legal Analysis of the Member States' Relevant Provisions and Practices' (European Commission, January 2016), 62–63. See also Bob Wessels and Stephan Madaus, 'Rescue of Business in Insolvency Law' (Instrument of the European Law Institute 2017) 164–167.

and independent third parties (e.g. judges and, where applicable, insolvency practitioners) will be managing or monitoring the debtor. Therefore, creditors will enjoy a higher degree of protection. As a result, this solution can credibly solve the risk of shareholder opportunism, facilitating firms' access to debt finance from an *ex ante* perspective.

Second, this regulatory approach may provide clearer guidance for judges, directors, creditors, and other stakeholders. Indeed, when assessing the appropriateness of directors' behaviour in the zone of insolvency, the only relevant factors to be considered are when the company became insolvent and whether the directors initiated insolvency proceedings in a timely manner. Other considerations, including whether the initiation of the insolvency proceeding was the most desirable solution for the creditors, will be irrelevant.

Third, when a company becomes factually insolvent, in addition to the destruction of value potentially generated by the debtor,[40] *creditors* can also destroy or opportunistically divert value.[41] For instance, by terminating contracts and initiating individual enforcement actions, they can destroy the going concern value of economically viable firms at the expense of the creditors as a whole.[42] Since the commencement of an insolvency proceeding can stop some of these actions, forcing debtors to initiate an insolvency proceeding may also be a way to minimise costs created by individual creditors.

However, despite the potential benefits of this regulatory model, the imposition of a duty to initiate insolvency proceedings can create various costs and problems. First, unless either a suspension of the duty to initiate insolvency proceedings is provided under certain circumstances[43] or the debtor manages to sort out its financial trouble within the period of time given to file the insolvency petition, this solution will force companies to bear the significant costs associated with insolvency proceedings.[44]

[40]For an analysis of different corporate actions destroying or redistributing value at the expense of creditors, see Section 3.

[41]In fact, some authors have emphasised that minimising the costs created by creditors should be the primary goal of insolvency law. See Thomas H Jackson, *The Logic and Limits of Bankruptcy Law* (Harvard University Press 1986) 7–19. See also Anthony J Casey, 'Chapter 11's Renegotiation Framework and the Purpose of Corporate Bankruptcy', 120 Columbia Law Review 1709 (2020).

[42]Aurelio Gurrea-Martinez, 'The Role of Corporate Insolvency Law in the Promotion of Economic Growth' (*Singapore Global Restructuring Initiative Blog*, 1 July 2020), <https://cebcla.smu.edu.sg/sgri/blog/2020/o07/01/role-corporate-insolvency-law-promotion-economic-growth> accessed 20 October 2020.

[43]For example, under Spanish Insolvency Law, the duty to initiate insolvency proceedings can be suspended for fourth months if the debtor communicates the court that it is trying to reach an out-of-court agreement. During this period, the debtor also enjoys a moratorium against most legal actions initiated by the creditors. See articles 588–594 of the Spanish Insolvency Act.

[44]The costs of financial distress can be very significant. For instance, see Jerold B Warner, 'Bankruptcy Costs: Some Evidence' (1977) 32 Journal of Finance 337 (showing that the direct costs of bankruptcy were 3–4 percent of the pre-bankruptcy market value of total assets in large firms); Gregor Andrade and Steven N Kaplan, 'How Costly Is Financial (not Economic) Distress? Evidence from Highly Leveraged Transactions That Became Distressed' (1998) 53 Journal of Finance 1443 (showing that the costs of financial distress represent 10–20 percent of the market value of the firm); Julian Franks and Oren Sussman, 'Financial Distress and Bank Restructuring of Small to Medium Size UK Companies' (2005)

Second, determining the precise day in which a company becomes insolvent is no easy task. Generally, a company does not become insolvent overnight. In most cases, a situation of insolvency is the result of a prolonged period of financial deterioration. Besides, determining whether the value of the assets exceeds the value of the liabilities can be a complex and subjective exercise.[45] Thus, the existence of a duty to initiate insolvency proceedings can create uncertainty and litigation costs. Besides, if this duty is strictly enforced, it may encourage directors to initiate an insolvency proceeding at a very early stage as a means to reduce the risk of being held liable for a delayed filing. Therefore, debtors and creditors will be forced to bear the costs of the insolvency proceeding even if less expensive solutions, such as an out-of-court restructuring, may be feasible.[46]

5.2. Duty to promote the recapitalisation or liquidation of the company

Several jurisdictions around the world, including Argentina, Ecuador, France, Mexico, Peru, Spain, Sweden and Uruguay,[47] require corporate directors to call a shareholders' meeting with the purpose of promoting the recapitalisation or liquidation of the company whenever, due to the existence of losses, the firm's net assets fall below the company's legal capital.[48] Failure to comply with these rules can make the director liable for damages and even for the company's debts.[49]

9 Review of Finance 65 (reporting that insolvent liquidations subtract 20–40 percent of the company's proceeds in the context of small and medium size enterprises in the United Kingdom).

[45] While determining whether a company is insolvent can create controversies and litigation costs in most jurisdictions, they might differ depending on the definition of insolvency adopted in a particular country.

[46] For a critical analysis of this regulatory model, emphasising the costs potentially created by forcing companies to initiate insolvency proceedings, see Davies (n 4). See also Stanghellini (n 35) 739.

[47] Gurrea-Martinez, 'Insolvency Law in Times of COVID-19' (n 36). The recapitalise or liquidate rule is not very common outside Europe and Latin America. Also, it should be noted that, in certain jurisdictions (e.g. Spain, France), the duty to promote the recapitalisation or liquidation of the company coexists along with the duty to initiate insolvency proceedings. Therefore, an individual country may jointly adopt two or more regulatory models of directors' duties in the zone of insolvency.

[48] In some countries, such as Argentina and Uruguay, the duty to promote the recapitalisation or liquidation of the company is indeed triggered when the company's net asset falls below the company's legal capital. In other countries (e.g. Spain), however, this duty is triggered when the company's net assets fall below 50% of the company's legal capital. Therefore, the adoption of this rule has been implemented differently across jurisdictions. For the recapitalise or liquidate rule in Argentina, see articles 94.5 and 96 of the Law 19,550. In Ecuador, see articles 361.6 of the Companies Act. In France, see L225-248 of the Commercial Code. Italy also adopts a recapitalise or liquidate rule. However, in addition to a minimum level of equity compared to the legal capital, the equity must also have reduced below the statutory minimum. See articles 2447 and 2448.4 of the Civil Code. In Mexico, see article 229.5 of the Companies Act. In Peru, see articles 407.4 and 209 of the General Corporation Act. In Spain, see article 363.1.e) of the Companies Act. In Sweden, see Chapter 15, sections 13–16, of the Companies Act. In Uruguay, see articles 159.6 and 160 of the Companies Act.

[49] While most countries impose a general liability regime for damages, corporate directors can be liable for the company's new debts in some countries. For example, in Spain, see article 367 of the Spanish Companies Act.

Although the imposition of this duty is triggered when a company experiences significant losses, and not necessarily when the company becomes insolvent, this duty is included among the regulatory models of directors' duties in the zone of insolvency for two primary reasons. First, the existence of significant losses often leads to a situation of insolvency. Therefore, this duty will generally be triggered when a company becomes, or is likely to become, insolvent from a balance-sheet perspective.[50] Second, as it happens with the special duties triggered in the zone of insolvency, the recapitalise or liquidate rule also seeks to protect creditors. In this case, however, this protection is supposed to be achieved by forcing companies to improve their financial situation (recapitalisation) or leave the market (liquidation) whenever the company becomes, or is likely to become, insolvent due to the existence of losses.

Despite the potential advantages of this rule, the imposition of a duty to promote the recapitalisation or liquidation of a company may generate various problems.[51] First, unless companies in these situations can effectively raise capital, the existence of this rule, especially if it is strictly enforced (as it happens in some jurisdictions[52]), may push many *viable* firms temporarily reporting losses towards exiting the market. Therefore, even if the rule is useful to protect creditors, value can be destroyed for society.[53] Second, from an *ex ante* perspective, the existence of this rule can encourage directors to pursue safe investment projects with a very low NPV. Thus, they will reduce the firm's exposure to potential losses. As a result, the company might fail to pursue risky but value-creating investment projects. Therefore, the recapitalise or liquidate rule may end up harming innovation and the creation of jobs and wealth. Third, the enforcement of this rule presents several problems. On the one hand, it is not always easy to determine the precise moment in which a firm's net assets fall below the company's legal capital. On the other hand, this rule is based on balance-sheet data.[54] Therefore, in companies without audited financial statements, the accounting data might not be reliable. Besides, given the discretion of corporate insiders in the registration and valuation of assets and liabilities, as well as the fact that many assets might

[50]Davies (n 4); Gurrea-Martinez, 'Insolvency Law in Times of COVID-19' (n 36).

[51]For a critical assessment of the recapitalise or liquidate rule, see Luca Enriques and Jonathan R Macey, 'Creditors Versus Capital Formation: The Case Against the European Legal Capital Rules' (2001) 86 Cornell Law Review 1165, 1201. See also Stanghellini (n 35).

[52]For example, in Spain, directors are personally liable for the company's debts incurred after they fail to promote the recapitalisation of liquidation of the company within 2 months from the time the company's net assets fell below 50% of the company's legal capital. These new creditors can initiate direct actions against the directors and easily get their debts paid. Therefore, the Spanish rule can be easily enforced, making the recapitalise or liquidate rule a powerful mechanism to protect creditors. See articles 363.1.e) and 367 of the Spanish Companies Act.

[53]Emphasising that this rule can destroy value when the company is worth saving, its shareholders cannot contribute fresh funds, and they are not able to sell their shares at market value, see Stanghellini (n 35).

[54]Enriques and Macey (n 51) 1201.

be registered for their historical cost instead of their fair value, the balance sheet will not provide an accurate valuation of the company's assets.

5.3. Duties towards creditors

Once a debtor becomes factually insolvent, some countries require corporate directors to change the focus of their corporate strategy. Namely, instead of maximising the value of the firm, it has been argued that they should focus on protecting the company's assets.[55] After all, since creditors (especially senior creditors) are more risk-averse than shareholders due to the limited returns that they can receive from the firm's upside,[56] it will make sense to adopt a strategy aligned with the interest of the new residual claimants.

Nonetheless, even though this view appears to be indirectly embraced in many insolvency legislations, the way this strategy has been implemented differs across jurisdictions. For example, while many jurisdictions, including Australia, Singapore, and the United Kingdom, impose a general duty to take into account the interest of the creditors,[57] other jurisdictions impose a prohibition on making payments to existing creditors[58] or on engaging in 'reckless behaviour' that can harm the creditors.[59] More interestingly, several jurisdictions, including some of the countries imposing a general duty to take into account the interests of the creditors, such as the United

[55] Amir Licht, 'What's so Wrong with Wrongful Trading?—on Suspending Director Liability during the Coronavirus Crisis' (*Oxford Business Law Blog*, 9 April 2020) <https://www.law.ox.ac.uk/business-law-blog/blog/2020/04/whats-so-wrong-wrongful-trading-suspending-director-liability-during> accessed 20 October 2020.

[56] Some creditors (especially junior creditors) might be out of the money. Under this scenario, the interests of these creditors will be more aligned with the interests of the shareholders.

[57] In Australia, see *Walker v Wimborne* (1976) 137 CLR 1 (HCA). In Singapore, see *Kinsela v Russel Pty Ltd* (1986) 10 ACLR 395 (CA), 401; *Liquidators of Progen Engineering Pte Ltd v Progen Holdings Ltd* [2010] 4 SLR 1089 (SGCA). In the United Kingdom, see *West Mercia Safetywear v Dodd* [1988] BCLC 250 (CA).

[58] This prohibition has traditionally been imposed, for example, in Austria and Germany. See Symes and Nosworthy (n 35). In Germany, however, the Law for the further development of restructuring and insolvency law (*Gesetz zur Fortentwicklung des Sanierungs- und Insolvenzrechts*), which entered into force on 1 January 2021, has abolished this prohibition. In any case, it should be noted that, even if many countries do not have a formal duty to prevent the company from making payments to the creditors, this outcome is indirectly achieved by the rules facilitating the avoidance of preferences existing most jurisdictions around the world. See Aurelio Gurrea-Martinez, 'The Avoidance of Pre-Bankruptcy Transactions: An Economic and Comparative Approach' (2018) 93(3) Chicago Kent Law Review 711.

[59] The clearest form of this duty can be found in New Zealand with the imposition of a duty to prevent 'reckless trading' that can harm the creditors. See article 135 of the Companies Act 1993. This duty also applies to solvent companies. However, the risk of harming creditors will be higher in a situation of insolvency. In other words, when a company has sufficient assets to pay all its debts, the existence of reckless behaviour by the directors will be less relevant for the creditors, since they are supposed to be paid in full. In those situations, the shareholders, rather than the creditors, will bear the losses associated with any reckless behaviour. However, if the company starts to face financial trouble, and even more if it is financially distressed, any decision from the directors may end up affecting the recoveries of the creditors. A similar provision can be found in South Africa. See section 22(1) of the Companies Act 2008.

Kingdom, also subject corporate directors to an additional duty to minimise losses for the creditors.[60]

Indeed, under the United Kingdom's wrongful trading regime, directors are required to take steps to minimise the potential losses for the creditors once they foresee that the company will end up in an insolvent liquidation.[61] Failure to comply with this duty can expose the directors to various consequences, including liability for damages and the risk of being disqualified.[62] Moreover, as it happens in many other jurisdictions, including Hong Kong, India, Nigeria, Malaysia, Singapore, and Australia, trading with the intention to defraud creditors while the company is insolvent will also expose the directors of UK companies to criminal liability.[63]

The imposition of duties towards the company's creditors is supposed to facilitate the alignment of incentives between managers and the creditors as new residual claimants of the insolvent firm. Additionally, it can save the costs associated with forcing companies to initiate insolvency proceedings.[64] Therefore, this approach has many advantages. However, it also exhibits several weaknesses.

First, as the directors of factually insolvent firms are still appointed, removed and remunerated by the shareholders, when they are not the shareholders themselves, they will have incentives to keep acting in the interest of the shareholders.[65] Therefore, this system might not provide a *credible* solution to the misalignment of incentives and the risk of shareholder opportunism existing in the zone of insolvency.[66] As a result, regardless of whether value is eventually destroyed or opportunistically divested at the expense

[60]Analysing the interaction between the different duties towards creditors existing in the United Kingdom, see Kristin van Zwieten, 'The Wrong Target? COVID-19 and the Wrongful Trading Rule', (*Oxford Business Law Blog*, 15 March 2020) <https://www.law.ox.ac.uk/business-law-blog/blog/2020/03/wrong-target-covid-19-and-wrongful-trading-rule> accessed 28 October 2020.

[61]See section 214 of the UK Insolvency Act 1986. For an analysis of this rule, see Daniel Prentice, 'Creditor's Interests and Director's Duties' (1990) 10 Oxford Journal of Legal Studies 265; Mokal (n 4); van Zwieten (n 1) Chapter 12. See also *West Mercia Safetywear v Dodd* [1988] BCLC 250 (CA).

[62]In practice, however, there are not many enforcement actions against corporate directors. Therefore, this liability regime does not seem to generate a deterrent effect. See Andrew Hicks, 'Wrongful Trading – Has it Been a Failure?' (1993) Insolvency Law and Practice 134; Michael Murray, 'The Empty Threat of Insolvent Trading' (2009) 126 Insolvency Law Bulletin; Insolvent Law Review Committee, Final Report, Singapore (2013); Andrew Keay, 'Wrongful Trading: Problems and Proposals' (2014) 65(1) Northern Ireland Legal Quarterly 63; Lynne Taylor, 'Directors' Duties on Insolvency in New Zealand: An Empirical Study' (2018) 28(2) New Zealand Universities Law Review; Ian Ramsay and Stacey Steele, 'Insolvent Trading in Australia: A Study of Court Judgments from 2004 to 2017' (2019) 27(3) Insolvency Law Journal 156; Stacey Steele, Ian Ramsay and Miranda Webster, 'Insolvency Law Reform in Australia and Singapore: Directors' Liability for Insolvent Trading and Wrongful Trading' (2019) 28(3) International Insolvency Review 363. Analysing a variety of factors making the enforcement of these duties more difficult, see McCormack, Keay, Brown and Dahlgreen (n 39) 62–65.

[63]See section 213 of the UK Insolvency Act 1986.

[64]Davies (n 4) 314.

[65]Mokal (n 4).

[66]Andrew Keay and Michael Murray, 'Making Company Directors Liable: A Comparative Analysis of Wrongful Trading in the United Kingdom and Insolvency Trading in Australia' (2005) 14 International Insolvency Review 27. See also Keay (n 62).

of the creditors when a firm becomes factually insolvent, lenders will have incentives to discount this risk.

Second, unless corporate directors are provided with clear guidelines on how to proceed in a situation of financial distress, this regulatory model can create uncertainty for both creditors and directors.[67] From the perspective of the directors, uncertainty can discourage many qualified candidates from serving on corporate boards. Additionally, it may incentivise directors to be risk-averse, leading to suboptimal investment decisions and the initiation of insolvency proceedings even when more desirable solution can be achieved outside the formal insolvency system. From the perspective of creditors, a general mandate to minimise their losses in the event of insolvency, or even to act on their behalf, can also create uncertainty. Sometimes, losses can be minimised if a financially distressed firm invests in risky projects with a high NPV. Moreover, a conflict among creditors might arise. On the one hand, junior creditors may prefer a higher level of risk, especially if they are out of the money. On the other hand, senior creditors will probably prefer safer investment projects even if they yield a very low NPV. Therefore, in situations where the interests of various classes of creditors may differ, it is not clear how corporate directors will proceed. Therefore, it can create uncertainty for both creditors and directors.

Third, imposing certain duties towards the company's creditors, and especially a duty to minimise losses, can lead to suboptimal business decisions. Indeed, since the creditors (especially senior creditors) are more risk-averse than the shareholders, the directors may have incentives to reject value-creating projects just because they are riskier. As a result, value will be destroyed for society.

Fourth, as financially distressed firms not yet subject to a formal insolvency proceeding are governed by company law, the imposition of duties towards creditors might not work properly under a legislation mainly focused on protecting shareholders.[68] Instead, it would make more sense to use insolvency law, which provides a regulatory framework more suitable for the protection of creditors.[69]

Finally, it has been argued that this regulatory model of directors' duties in the zone of insolvency faces various enforcement problems.[70] First, investigations and legal actions seeking to make the directors liable are often initiated by insolvency practitioners. In many cases, however, insolvency

[67]Analysing how the directors of UK companies should proceed in a situation of financial distress, van Zwieten (n 1) Chapter 12.
[68]Hu and Westbrook (n 26).
[69]ibid.
[70]Paul James, Ian Ramsay and Polat Siva, 'Insolvent Trading – An Empirical Study' (University of Melbourne, 2004) <https://papers.ssrn.com/sol3/papers.cfm?abstract_id=555892> accessed 28 October 2020. See also Keay and Murray (n 66); Keay (n 62).

practitioners do not have the incentives or even the resources needed to conduct these investigations.[71] Therefore, many faulty directors may not be found liable for a breach of their duties towards the company's creditors.[72] Second, this regulatory approach requires the existence of judges with the expertise to determine when the new directors' duties were triggered and whether the directors took into account the interests of the creditors and, under the wrongful trading provisions existing in the United Kingdom, took 'reasonable steps' to minimise losses for the creditors. Third, any *ex post* analysis judging the conduct of corporate directors can be subject to hindsight bias.[73] This bias can unfairly punish directors, leading to various *ex ante* inefficiencies, including excessively risk-averse behaviour, initiation of insolvency proceedings at a very early stage, and fewer honest and qualified directors willing to serve on corporate boards. Fourth, even if the directors are found guilty, they often become insolvent themselves - especially in case of small companies where the directors are the shareholders of the company – and might not have assets to pay damages. Therefore, the deterrence effect of this rule will be notably reduced, undermining the effectiveness of this approach for the protection of creditors in the zone of insolvency.[74] In any case, it should be noted that, while these enforcement problems have been traditionally associated with the wrongful and insolvent trading provisions existing in many common law countries, most of them might exist in the context of other regulatory models of directors' duties in the zone of insolvency. Compared to other models, the most unique enforcement problem associated with the imposition of duties towards the company's creditors, especially in the form of the wrongful trading provisions existing in the United Kingdom, is the fact that courts will enjoy a high degree of discretion when deciding *ex post* about the desirability of the directors' actions. Therefore, as discussed in Section 6, even though this regulatory approach might make sense in countries with experienced courts such as the United Kingdom, it will be less desirable in countries without an efficient, sophisticated and reliable judiciary.

[71]Keay (n 62).

[72]A possible mechanism to reduce this problem may include the promotion of litigation funding in insolvency proceedings, which is a trend observed in many jurisdictions.

[73]This bias occurs due to the inclination, after an event has occurred, to think that the outcome was predictable, despite the fact that there was no objective basis for that at the moment of making the decision. For a definition of hindsight bias, see Neal J Roese and Kathleen D Vosh, 'Hindsight Bias' (2012) 7 Perspectives on Psychological Science 411. See also Baruch Fischhoff, 'Hindsight ≠ Foresight: The Effect of Outcome Knowledge on Judgment Under Uncertainty' (1975) 1 Journal of Experimental Psychology 288; Baruch Fischhoff, 'For Those Condemned to Study the Past: Heuristics and Biases in Hindsight' in Daniel Kanheman, Paul Slovic and Amos Tversky (eds), *Judgment under Uncertainty: Heuristics and Biases* (Cambridge University Press 1982); Daniel Kahneman, *Thinking, Fast and Slow* (Farrar, Straus and Giroux 2011) 202–204.

[74]Keay (n 62). See also Richard Williams, 'What Can We Expect to Gain from Reforming the Insolvent Trading Remedy' (2015) 78 Modern Law Review 55

5.4. Duty to prevent the company from incurring new debts

Several jurisdictions require corporate directors to prevent the company from incurring new debts once the firm becomes insolvent. This model has been adopted by various countries around the world, including Australia and South Africa, and it has been generally implemented under the form of insolvent trading provisions.[75] In Australia, an insolvent company can only incur new debts in very limited circumstances mainly related to the adoption of a restructuring plan.[76] A similar regime of insolvent trading exists in South Africa.[77] Failure to comply with these rules may make the directors personally liable for the company's debts, in addition to being subject to disqualification.[78]

The imposition of this regulatory model of directors' duties has several advantages. On the one hand, it can encourage non-viable firms facing financial trouble to exit the market. Therefore, this solution can create several benefits, including the quick reallocation of assets of non-viable businesses, the reduction of 'zombie companies' in the economy, and the protection of non-sophisticated creditors unable to determine whether their counterparties are facing financial trouble.[79] On the other hand, this regulatory model can encourage viable but financially distressed firms to take corrective actions in a timely manner.

However, restricting companies from incurring new debts once they are insolvent can create various costs. First, unless the directors enjoy some degree of flexibility, as they currently do in Australia after the 2017 reform,[80] this system can encourage companies to initiate an insolvency

[75]In Australia, see section 588G of the Corporations Act 2001. In South Africa, see section 22(1) of the Companies Act 2008.

[76]Prior to the reform implemented in 2017, Australia imposed a duty to stop insolvent trading without any exceptions. Under the new regime, corporate directors are allowed to incur new debts in certain circumstances mainly associated with the adoption of a restructuring plan. See section 588GA and 588GB of the Corporations Act 2001. For an analysis of the Australian regime prior to the 2017 reform, see Justin Mannolini, 'Creditors' Interest in the Corporate Contract: A Case for the Reform of Our Insolvent Trading Provisions' (1996) 6 Australian Journal of Corporate Law 14; David Morrison, 'The Australian Insolvent Trading Prohibition – Why Does it Exist?' (2002) 11(3) International Insolvency Review 153; Jason Harris, 'Director Liability for Insolvent Trading: Is the Cure Worse than the Disease?' (2009) 23(3) Australian Journal of Corporate Law 266. See also James, Ramsay and Siva (n 70); Keay and Murray (n 66). For an analysis of the Australian provisions after the 2017 reform, see Steele, Ramsay, and Webster (n 66).

[77]See section 22(1) of the Companies Act 2008.

[78]In Australia, see section 588G(2) of the Corporations Act 2001. In Singapore, the compensation order may include making any party involved in the transaction personally responsible, without any limitation of liability, for all or any of the debts or other liabilities of the company. See section 239(1) of the Insolvency, Restructuring and Dissolution Act 2018. In New Zealand, the directors can be liable for a sum that the court thinks 'just'. See section 301 of the Companies Act 1993.

[79]For a critical analysis of insolvent trading laws, see Jason Harris, 'Reforming Insolvent Trading to Encourage Restructuring: Safe Harbour or Sleepy Hollows?' (2016) 27(4) Journal of Banking and Finance Law and Practice 294. See also Keay and Murray (n 66).

[80]In Australia, under section 588H of the Corporations Act 2001, there are four defences against insolvent trading. First, where the director had reasonable ground to expect, and did expect, that the company was solvent and would remain solvent even if it incurred the debt. Second, where the director: (i) had

proceeding even when a less costly solution (e.g. workout) may be possible. Second, the inability to incur new debts when the company is insolvent will discourage many viable but financially distressed businesses from pursuing value-creating investment projects that can ultimately generate jobs, wealth and growth. Finally, if a failure to comply with this duty exposes the directors to a credible threat of being subject to a severe liability regime,[81] this system can discourage talented people from serving on corporate boards.[82] However, this latter problem is not necessary a consequence of this model of directors' duties. Instead, it is more related to the liability of directors for a breach of these duties as well as the credibility of the enforcement. Therefore, this drawback can also be found in other regulatory models.

5.5. Duty to prevent the company from incurring new debts that cannot be met in full

Other jurisdictions around the world, including Singapore and New Zealand, also require directors, in certain circumstances, to prevent the company from incurring new debts.[83] However, unlike the regulatory model existing in Australia and South Africa, the solution adopted in Singapore and New Zealand only prevents the company from incurring new debts when there is no

reasonable ground to believe, and did believe, that a competent and reliable person was responsible for providing to the director adequate information about the solvency of the company; (ii) had reasonable grounds to believe, and did believe, that the person was fulfilling that responsibility; and (iii) expected, on the basis of the information provided, that the company was solvent and would remain solvent even if it incurred the debt. Third, where the director did not take part in the management of the company because of illness or for some other good reason. Fourth, where the directors took all reasonable steps to prevent the company from incurring the debt. Relevant considerations as to whether the director took reasonable steps include any action with a view to appoint an administrator of the company, when that action was taken and the results of that action. In addition, under section 588GA of the Corporations Act 2001, where the director, after suspecting that the company may become or be insolvent, develops a course of action that is reasonably likely to lead to a better outcome for the company and the debt incurred in connection with this course of action was taken during a specified period. The specified period commences when the director starts developing the course of action and ends at the earliest of any of the following times: (i) at the end of a reasonable period after the director fails to take any course of action; (ii) when the director ceases to take any such course of action; (iii) when the course of action ceases to be reasonably likely to lead to a better outcome for the company; or (iv) an administrator or liquidator is appointed over the company. For an analysis of the insolvency trading provisions in Australia, see Ian Ramsay and Stacey Steele, 'The "Safe Harbour" Reforms of Directors' Insolvent Trading Liability in Australia: Insolvency Professionals' Views' (2020) 48 Australian Business Law Review 7.

[81] In Australia, see James, Ramsay and Siva (n 70) (showing that there were not many cases of insolvent trading brought against corporate directors in Australia in the past decades; however, in the vast majority of the insolvent trading cases (75%), the defendant was found liable for insolvent trading).

[82] These arguments have been traditionally given against the insolvent trading provisions existing in Australia. See Keay (n 62); Williams (n 74).

[83] In Singapore, see section 239(12) of the Insolvency, Restructuring and Dissolution Act 2018. In New Zealand, see section 136 of the Companies Act 1993. For an analysis of the similarities and divergences of the regime in Australia and Singapore, see Steele, Ramsay, and Webster (n 62). In New Zealand, see also *Vivien Judith Madsen-Ries and Henry David Levin as Liquidators of Debut Homes Limited (in liquidation) v Leonard Wayne Cooper* [2020] NZSC 100.

reasonable prospect of meeting them in full.[84] Therefore, this duty is not necessarily triggered once a company becomes factually insolvent. However, as this duty will only be relevant if the creditors have not been paid in full, and therefore the company became insolvent, the existence of this duty can also be included as a regulatory model of directors' duties in the zone of insolvency.

Failure to comply with the duty to prevent the company from incurring new debts that cannot be paid in full may make the directors liable for the company's debts.[85] Moreover, the directors can be subject to disqualification.[86]

The existence of this duty may generate most of the benefits associated with the insolvent trading provisions adopted in Australia and South Africa. Therefore, it can be a valuable mechanism to protect creditors and force non-viable firms to exit the market. Moreover, since the approach adopted in Singapore and New Zealand does not necessarily prevent insolvent firms from incurring new debts, it will provide more flexibility to turn around viable but financially distressed companies. In the context of solvent companies, however, this regulatory approach can create several costs. Namely, due to the fact that the directors can be liable for the company's debts if they do not prevent the company from incurring new debts that cannot be paid in full, viable companies without clear prospects of generating cash-flows in the near future—as it often occurs in the context of many start-ups—may be discouraged from borrowing. Therefore, they might be forced to exit the market at an early stage. To address this concern, some countries have adopted various safe harbour provisions. For example, under Singapore law, corporate directors will not be liable for wrongful trading if they acted honestly[87] or if the company obtains a declaration of the court determining that a particular course of conduct, a particular transaction or a particular series of transactions does not constitute wrongful trading.[88]

5.6. Duty to maximise the value of the firm

In some jurisdictions, such as Canada and the United States, directors are required to act in the best interest of the corporation *even if* the firm

[84] The adoption of this solution was also discussed in the United Kingdom. See Kenneth Cork, *Report of the Review Committee on Insolvency Law and Practice* (Cmnd 8558, 1982), para 1806.
[85] In Singapore, see section 239(1) of the Insolvency, Restructuring and Dissolution Act 2018. In New Zealand, the directors can be liable for a sum that the court thinks 'just'. See section 301 of the Companies Act 1993.
[86] As it happens in many other common law countries, Singapore and New Zealand also have a system of disqualification for corporate directors.
[87] See section 239(2) of the Insolvency, Restructuring and Dissolution Act 2018.
[88] See section 239(2) of the Insolvency, Restructuring and Dissolution Act 2018.

becomes factually insolvent.[89] Therefore, directors' duties do not change in the zone of insolvency. The primary difference between solvent and factually insolvent firms are the people *indirectly* bearing the costs and benefits associated with the managers' actions, that is, the shareholders (solvent firms) or the creditors (factually insolvent firms). In either case, though, the potential gains and losses are directly borne by the company, and the directors will be required to maximise the value of the firm by pursuing those investment projects with the highest NPV.[90] If the company is solvent, this mandate will indirectly benefit or harm the shareholders. If the company is insolvent, this mandate will indirectly benefit or harm the creditors—especially the class of creditors becoming the residual claimants of the firm.

This regulatory model has various advantages. First, by not forcing companies to initiate insolvency proceedings, this regulatory approach can save significant costs if the situation of insolvency can be solved through an out-of-court restructuring. Second, since courts would not need to determine the precise moment in which the company became insolvent, this regulatory approach can also reduce uncertainty and litigation costs. Third, this model of directors' duties in the zone of insolvency can avoid the problem associated with adopting an excessively risk-averse behaviour in the zone of insolvency. In the context of *insolvent* firms, the shareholders may have incentives to pursue risky projects that, even if they have a negative NPV, may allow them to recover their investments in case of success. After all, since the shareholders have lost everything and they enjoy limited liability, they have nothing to lose. Similarly, in *solvent* companies, the creditors are generally entitled to fixed returns. Therefore, as they will not enjoy the benefits associated with an increase in the firms' value, they would ideally want the company to pursue investment projects that, even if they yield low returns, do not entail any risks. From a social-welfare perspective, both types of business decisions should be avoided.

[89]In Canada, see *Peoples Department Stores Inc (trustee of) v Wise* [2004] 3 SCR 461. In the United States, see *North American Catholic Educational Programming Foundation, Inc v Gheewalla*, 930 A.2d 92 (Del 2007) and *Quadrant Structured Prods Co v Vertin, 102 A.3d 155* (Del Ch 2014).

[90]While identifying the best interest of the company with the maximisation of the value of the firm can be controversial in certain countries, it is generally accepted in the United States – especially in Delaware. See Stephen Bainbridge, 'Much Ado About Little? Directors Fiduciary Duties in the Vicinity of Insolvency' (2005) 2 Journal of Business and Technology Law 335; Anil Hargovan and Timothy M Todd, 'Financial Twilight Re-Appraisal: Ending the Judicially Created Quagmire of Fiduciary Duties to Creditors' (2017) 78(2) University of Pittsburgh Law Review 135; Jared A Ellias and Robert J Stark, 'Delaware Corporate Law and the "End of History" in Creditor Protection' in Russell and Laby (eds) *Fiduciary Obligations in Business* (forthcoming, 2021) <https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3670399> accessed 1 August 2021. Brad Scheler, Gary Kaplan and Jennifer Rodburg, 'Director Fiduciary Duty in Insolvency' (*Harvard Law School Forum on Corporate Governance*, 15 April 2020) <https://corpgov.law.harvard.edu/2020/04/15/director-fiduciary-duty-in-insolvency/> accessed 15 July 2020. See also Armour and Gordon (n 3).

The former involves an over-investment problem because the company will pursue a project that should not be undertaken.[91] The latter will lead to an underinvestment problem, due to the fact that the company will not undertake a project that should be pursued.[92] In both situations, value will be destroyed. Therefore, the adoption of this regulatory model existing in several jurisdictions, including the United States and Canada, can encourage the directors to make value-maximising decisions.

Even though this regulatory approach has several advantages, it entails a significant drawback. Namely, as the directors of financially distressed companies not yet subject to a formal insolvency proceeding are still appointed, removed and remunerated by the shareholders, this model cannot credibly solve the problem of shareholder opportunism in the zone of insolvency. Therefore, even if the directors do not eventually harm the interests of the creditors in the zone of insolvency, lenders may discount this risk. As such, unless the problem of shareholder opportunism can be effectively addressed through other mechanisms,[93] the existence of this regulatory model can reduce firms' access to debt finance.

5.7. Summary

Despite the formal divergences existing in the design of directors' duties in the zone of insolvency, most regulatory approaches observed internationally can be summarised into six primary models: (i) the imposition of a duty to initiate insolvency proceedings, generally found in Europe; (ii) the imposition of a duty to recapitalise or liquidate the company, existing in many countries in Europe and Latin America; (iii) the imposition of duties towards creditors, including the duty to minimise losses for the company's creditors found in the United Kingdom; (iv) the imposition of a duty to prevent the company from incurring new debts, found in countries like Australia and South Africa; (v) the imposition of a duty to prevent the company from incurring new debts that cannot be paid in full, existing in jurisdictions such as Singapore and New Zealand; and (vi) the imposition of a duty to maximise the value of the firm, as found in Canada and the United States. Table 1 shows a summary of these models, as well as some of the jurisdictions adopting each regulatory approach.

[91]See Berkovitch and Kim (n 11).
[92]See Myers (n 14).
[93]Other solutions may include covenants, avoidance actions, and criminal sanctions for fraudulent behaviour.

Table 1. Regulatory models of directors' duties in the zone of insolvency

Regulatory model	Jurisdiction
1. Duty to initiate insolvency proceedings	Austria, Cambodia, Czech Republic, France, Germany, Luxembourg, Poland, Portugal, Russia, Spain, United Arab Emirates, Vietnam
2. Duty to recapitalise or liquidate	Argentina, Ecuador, France, Italy, Mexico, Spain, Sweden, Uruguay
3. Duty towards creditors	Hong Kong, Singapore, United Kingdom
3.1. Duty to take into account the interests of the creditors	Hong Kong, Singapore, United Kingdom
3.2. Duty to minimise losses for the creditors	United Kingdom
4. Duty to prevent the company from incurring new debts in insolvency	Australia, South Africa
5. Duty to prevent the company from incurring new debts that cannot be paid in full	Singapore, New Zealand
6. Duty to maximise the value of the firm	United States, Canada

6. Choosing an optimal model of directors' duties in the zone of insolvency

6.1. Introduction

Section 5 has provided a general overview of the features, advantages and weaknesses of the primary regulatory models of directors' duties in the zone of insolvency observed internationally. As has been mentioned, none of these models are entirely convincing. Therefore, from a policy perspective, it might not be clear which one seems a more desirable option. The following sections will show that the answer will depend on a variety of country-specific factors, including divergences in corporate ownership structures, debt structures, sophistication of the judiciary, efficiency of insolvency proceedings, and level of financial development.[94] However, even though, individually considered, the country-specific factors analysed in Section 6.2 may make a particular regulatory model of directors' duties more or less desirable, most countries have mixed features. For that reason, Section 6.3 will provide policy recommendations to design directors' duties in these latter countries. Additionally, it should be kept in mind that, within a country, companies may also have totally different legal and economic features. As a result, Section 6.4 will discuss the optimal design of directors' duties in the zone of insolvency depending on the particular features of a company. Section 6.5 will conclude by summarising the primary arguments and policy recommendations discussed in Section 6.

[94]For a pioneering work analysing the role of corporate ownership and debt structures in the design, evolution and practice of insolvency law, see John Armour, Brian R Cheffins, David A Skeel, 'Corporate Ownership Structure and the Evolution of Bankruptcy Law: Lessons from the United Kingdom' (2002) 55 Vanderbilt Law Review 1699.

6.2. Country-specific factors affecting the desirability of regulatory models

6.2.1. Corporate ownership structures

In micro, small and medium-sized enterprises ('MSMEs') as well as large controlled firms, there is a greater alignment of incentives between directors and shareholders.[95] Therefore, in the event of insolvency, the directors may have more incentives to engage in various forms of opportunistic behaviour that will advance the shareholders' interests even if it is at the expense of the creditors.[96] As a result, in countries with a significance presence of these companies, which are most jurisdictions around the world,[97] a more interventionist approach to protect the creditors, such as the duty to initiate insolvency proceedings, may make more sense. Otherwise, even if the directors do not ultimately act in the interest of the shareholders once the company becomes insolvent, the higher *risk* of being exposed to opportunistic behaviour by the debtor may make lenders more reluctant to extend credit, harming firms' access to finance.

By contrast, in the context of companies with dispersed ownership structures, generally found in the United Kingdom and the United States,[98] a more flexible approach for the regulation of directors' duties in the zone of insolvency may be more justified. For this reason, the duty to maximise the value of the firm or a duty to take steps to minimise potential losses for the creditors will make more sense, at least for listed companies. In the context of listed companies in the United Kingdom and the United States, the directors are usually less influenced by the shareholders. As such, by being in a better position to preserve their independence, they will have incentives to make value-maximising decisions even if, in the event of insolvency, these decisions do not always favour the interests of the shareholders.[99] If the shareholders are unhappy with these decisions, the existence of more pronounced collective action problems will prevent them from easily removing the directors. Therefore, while this separation between shareholders and directors can be the primary source of agency problems in solvent firms,[100] it can actually be desirable for the protection of creditors when a company becomes factually insolvent.[101]

[95] See Aurelio Gurrea-Martinez, 'Insolvency Law in Emerging Markets' (2020) Ibero-American Institute for Law and Finance, Working Paper 3/2020 <https://ssrn.com/abstract=3606395> accessed 15 July 2020.
[96] See Armour, Hertig and Kanda (n 9) 142.
[97] ibid
[98] See Rafael La Porta, Florencio Lopez de Silanes and Robert Vishny, 'Corporate Ownership around the World' (1999) 54 Journal of Finance 471. In the United States, however, see Clifford G Holderness, 'The Myth of Diffuse Ownership in the United States' (2009) 44 The Review of Financial Studies 1377.
[99] Gurrea-Martinez, 'Insolvency Law in Emerging Markets' (n 95).
[100] See Jensen and Meckling (n 9).
[101] See Armour, Hertig and Kanda (n 9) 142 (arguing that the fragmentation of share ownership reduces concerns about shareholder-creditor agency costs).

6.2.2. Debt structures

In companies with concentrated debt structures, as generally occurs in MSMEs[102] and large companies mainly relying on bank finance,[103] creditors do not face significant coordination costs.[104] Therefore, these companies will find it easier to reach an out-of-court agreement with their creditors.[105] As a result, since insolvency proceedings might not be needed, it would not make sense to impose a duty to file an insolvency petition.[106]

By contrast, in companies with dispersed debt structures, the provisions and special forum for renegotiation and the adjustment of debts provided by insolvency laws will be more valuable. Therefore, forcing companies to initiate insolvency proceedings may be more justified. As a result, while a duty to initiate insolvency proceedings might not be desirable in countries with many MSMEs and large firms usually relying on bank finance (that is, most countries around the world), it can make more sense in jurisdictions where companies usually have dispersed debt structures, as it happens in the context of listed companies in the United States.

6.2.3. Sophistication of the judiciary

In countries with sophisticated courts, such as in the United States, the United Kingdom and Singapore, it will make sense to give more discretion to the courts. Therefore, the imposition of a duty to take steps to minimise losses for the creditors can be more justified in these countries. By contrast, in jurisdictions without sophisticated and reliable judicial systems, as tends to

[102] Aurelio Gurrea-Martinez, 'Implementing an Insolvency Framework for Micro and Small Firms' International Insolvency Review (Forthcoming 2021) <https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3715654> accessed 22 October 2020.

[103] Explaining that many large companies in the United Kingdom have concentrated debt structures due to their reliance on bank lending, and this factor justifies, at least in part, the success of out-of-court restructurings, see Armour, Cheffins, and Skeel (n 94).

[104] See Stuart Gilson, Kose John and Larry Lang, 'Troubled Debt Restructurings: An Empirical Study of Private Reorganization of Firms in Default' (1990) 27 Journal of Financial Economics 315 (showing that debt restructurings can easily be achieved in companies with concentrated capital structures). See also Edward Morrison, 'Bargaining Around Bankruptcy: Small Business Distress and State Law' (2009) 38 Journal of Legal Studies 255; Armour, Hertig and Kanda (n 9) 140–141.

[105] For this reason, it is important to promote workouts in countries where companies usually have concentred debt structures. This goal has been promoted through a variety of mechanisms. For example, in the United Kingdom, the adoption of a non-statutory and informal framework supported by the Bank of England to deal with company in financial distress, generally known as 'The London Approach', has been a successful mechanism to promote workouts. See John Armour and Simon Deakin, 'Norms in Private Insolvency: The "London Approach" to the Resolution of Financial Distress' (2001) 1 Journal of Corporate Law Studies 21. In Singapore, the Association of Banks has promulgated a set of principles to facilitate workouts through its Principles & Guidelines for Restructuring of Corporate Debt ("ABS Guidelines"). See Association of Banks in Singapore, 'Principles & Guidelines for Restructuring of Corporate Debt' <https://www.abs.org.sg/docs/library/spore_approach.pdf> accessed 26 June 2020.

[106] In companies with concentrated debt structures, formal insolvency proceedings will be mainly used by non-viable companies unable to reach an out-of-court agreement. See Armour, Cheffins, Skeel (n 94) 1772–1777.

occur in many emerging markets and some advanced economies,[107] the discretion of courts should be reduced. For this reason, the use of rules rather than standards should be favoured.[108] As a result, a duty to initiate insolvency proceedings may be more desirable in countries without sophisticated courts.

6.2.4. Efficiency of insolvency proceedings

In many countries, insolvency proceedings are not very efficient.[109] These inefficiencies are usually translated into slow and value-destructive insolvency proceedings.[110] Therefore, in countries with inefficient insolvency proceedings, imposing a duty to initiate insolvency proceedings may do more harm than good for debtors and creditors. As a result, this solution should be avoided. As discussed in Section 6.3, the most suitable regulatory approach in these jurisdictions will depend on the remaining legal, economic and institutional features of the country.

6.2.5. Level of financial development

In countries with developed financial systems, companies should not have significant problems having access to finance. In many jurisdictions, however, even solvent and viable firms may have trouble raising funds.[111] Therefore, in these latter jurisdictions, adopting a solution that does not credibly solve the risk of shareholder opportunism in the zone of insolvency can exacerbate the problems associated with the lack of access to external finance. In these countries, it could be argued that the duty to initiate insolvency proceedings can be more desirable as it will lead to a shift of control from the shareholders to the creditors as soon as the company becomes insolvent.[112] Therefore, the interests of the creditors will be protected once they become the new residual claimants of the firm. However, this intuition rests upon on two underlying assumptions. First, the duty to initiate insolvency proceedings has to be properly enforced, so that an insolvency proceeding will be initiated as soon as a company becomes factually insolvent. Second, insolvency proceedings must be efficient. As a result, they can provide a desirable solution for the creditors as a whole. Unfortunately, these assumptions are not always met. In fact, as mentioned in Section 6.3,

[107]Gurrea-Martinez, 'Insolvency Law in Emerging Markets' (n 95).
[108]For a definition and economic analysis of rules and standards, see Louis Kaplow, 'Rules versus Standards: An Economic Analysis' (1992) 42 Duke Law Journal 557.
[109]Despite the difficulties associated with measuring the efficiency of insolvency proceedings, a useful reference can be provided by the insolvency resolution index of the World Bank's Doing Business Report.
[110]Even though these value-destructive insolvency proceedings can be found in some advanced economies, they are very common in emerging markets. See Gurrea-Martinez, 'Insolvency Law in Emerging Markets' (n 95).
[111]ibid.
[112]See Section 5.1.

many countries with underdeveloped financial systems usually have inefficient insolvency proceedings and poor enforcement institutions.[113] Therefore, imposing a duty to initiate insolvency proceeding does not seem a desirable policy to achieve the expected goal of enhancing creditor protection and facilitating firms' access to finance. Instead, other approaches should be explored. The next section will explain the most suitable approach for countries with these mixed features.

6.3. Countries with mixed features

The previous sections have provided various policy recommendations to design directors' duties in the zone of insolvency taking into account some individual features of a country. Unfortunately for regulators and policymakers, most countries have mixed features. Therefore, while some features (e.g. concentrated ownership structures) may suggest a particular regulatory model (e.g. duty to initiate insolvency proceedings), other features (e.g. inefficient insolvency proceedings) may suggest other models (e.g. duty to prevent the company from incurring new debts).

In some cases, the weight and importance of some features over others can make the selection of the regulatory model easier. For instance, in Germany, where the insolvency system is very efficient,[114] and companies generally have concentrated ownership structures,[115] the duty to initiate insolvency proceedings seems to make more sense. In the United States and the United Kingdom, at least in the context of listed companies with dispersed ownership structures, the duty to keep maximising the interest of the company (existing in the US), or even the duty to minimise losses for the creditors (existing in the UK) can be desirable. Since the directors of these companies are more independent from the shareholders, a more flexible regulatory model of directors' duties in the zone of insolvency will be more justified. This assertion can be challenged, however, due to the fact that the remuneration of managers of listed companies in the United States and, to a lesser extent, in the United Kingdom, often includes stock options and other forms of equity-based compensation.[116] Therefore, it can be

[113]Gurrea-Martinez, 'Insolvency Law in Emerging Markets' (n 95).

[114]In 2020, Germany was ranked 4th worldwide in terms of efficient resolution of financial distress. See Doing Business: Germany (Doing Business, 2020), <https://www.doingbusiness.org/content/dam/doingBusiness/country/g/germany/DEU.pdf> accessed 28 October 2020. The academic literature also seems to accept that the German insolvency system is relatively efficient, or at least it does not exhibit any fundamental flaws. See Horst Eidenmüller, 'Contracting for a European Insolvency Regime' (2017) 18(2) European Business Organization Law Review 273, 285. See also Davydenko and Franks (n 19).

[115]Marco Becht and Ekkehart Böhmer, 'Voting control in German corporations' (2003) 23 International Review of Law and Economics 1. See, however, Wolf-Georg Ringe, 'Changing Law and Ownership Patterns in Germany: Corporate Governance and the Erosion of Deutschland AG' (2015) 63 American Journal of Comparative Law 493 (showing a gradual fragmentation of share ownership in large German companies).

argued that the interests of managers and shareholders are aligned. Nonetheless, while the shareholders only have their investments at risk, the managers can also jeopardise their jobs if the company is ultimately shut down (or even if it ends up in an insolvency proceeding). Therefore, the managers may have incentives to avoid excessive risk-taking in the zone of insolvency.[117] As a result, the directors of companies with dispersed ownership structures will remain more independent from the shareholders in the zone of insolvency even if their pay includes equity-based compensation.

In other countries, the assessment of the most appropriate regulatory model of directors' duties can be more complex. For instance, in countries with inefficient insolvency proceedings and companies with concentrated debt and ownership structures, as it generally occurs in most emerging markets and some advanced economies,[118] a duty to initiate insolvency proceedings may sound attractive if the primary goal of regulators and policymakers is preventing the risk of shareholder opportunism. However, the inefficiency of insolvency proceedings, as well as the existence of firms with concentrated debt structures, makes the duty to initiate an insolvency proceeding a less desirable solution. In emerging economies, the adoption of enhanced workouts or hybrid procedures (that is, out-of-court restructuring vested with some tools generally existing in formal insolvency proceedings such as a moratorium and a majority rule) and the imposition of a duty to initiate this enhanced workout in the event of insolvency can be a more desirable strategy.[119] Thus, the risk of shareholder opportunism would be addressed as soon as the creditors become the residual claimants of the firm, and debtors and creditors would not be forced to bear the significant costs associated with the initiation of the inefficient insolvency proceedings generally existing in these countries.[120] Alternatively, another solution potentially suitable for emerging economies may consist of requiring corporate directors to prevent the company from incurring new debts if they know, or ought to have known, that the company will not be able to repay those debts. By adopting this regulatory model, pre-existing creditors should be protected since their debts are supposed to be paid in full. Likewise,

[116] Armour, Enriques, Hansmann and Kraakman (n 33) 66–67.

[117] See Eckbo and Thorburn (n 9) (demonstrating that the desire to preserve their jobs reduces managerial incentives to take risks in a situation of financial distress).

[118] Emphasising these features in emerging economies, see Gurrea-Martinez, 'Insolvency Law in Emerging Markets' (n 95). Examples of advanced economies with these features may include various European countries such as Italy, Greece and Spain. Analysing the inefficiencies of the Italian insolvency regime, see Jose Garrido, 'Insolvency and Enforcement Reforms in Italy' (2016) IMF WP/16/134 <https://www.imf.org/external/pubs/ft/wp/2016/wp16134.pdf> accessed 18 January 2021. For Greece, see Wolfgang Bergthaler, Jose Garrido, Ivohasina Razafimahefa, and Alvar Kangur, 'Selected Issues Paper: Greece' (2017) IMF Country Report No 17/41 <https://www.imf.org/-/media/Files/Publications/CR/2017/cr1741.ashx> accessed 18 January 2021. For Spain, see Aurelio Gurrea-Martinez, 'The Low Usage of Bankruptcy Procedures: A Cultural Problem? Lessons from Spain' (2020) 27 University of Miami International & Comparative Law Review 275.

[119] Gurrea-Martinez, 'Insolvency Law in Emerging Markets' (n 95).

[120] ibid

prospective creditors will also be protected either because the company will not borrow once the new debts cannot be paid in full or, if they do, the directors will be liable for the new debts.[121]

6.4. Different regulatory approaches based on the type of companies

In addition to the complexity associated with the existence of countries with mixed features, it should also be kept in mind that, within a country, companies may also differ significantly. For this reason, it may be desirable to adopt different regulatory approaches for different types of companies. For example, it has been argued that, due to the fact that the directors of listed companies in the United States and the United Kingdom are more independent from the shareholders, a more flexible regime of directors' duties in the zone of insolvency makes more sense in these jurisdictions.[122] However, some listed companies in the United States and the United Kingdom have controlling shareholders.[123] Moreover, the majority of firms in these countries are MSMEs.[124] As a result, since the interests of shareholders and directors will be more aligned in the context of controlled companies and MSMEs, a different regulatory model of directors' duties in the zone of insolvency can be justified for these firms.

The efficiency of insolvency proceedings in the United States and, to a lesser extent, in the United Kingdom may suggest the imposition of a duty to initiate insolvency proceedings as a reasonable approach for firms subject to a higher risk of shareholder opportunism such as MSMEs and large controlled companies.[125] However, due to the prohibitive costs of the insolvency system for MSMEs,[126] this solution would only be desirable for large controlled firms. For MSMEs, a duty to minimise the potential losses for

[121]ibid

[122]See Section 6.3.

[123]In the United States, many of these companies have controlling shareholders due to the existence of dual-class shares structures. See Robert J Jackson Jr, 'Perpetual Dual-Class Stock: The Case Against Corporate Royalty' (U.S. Securities and Exchange Commission 2018) <https://www.sec.gov/news/speech/perpetual-dual-class-stock-case-against-corporate-royalty> accessed 23 October 2020. In the United Kingdom, however, dual-class shares are prohibited for Premium-listed companies. See Aurelio Gurrea-Martinez, 'Theory, Evidence, and Policy on Dual-Class Shares: A Country-Specific Response to a Global Debate' (2021) European Business Organization Law Review <https://link.springer.com/article/10.1007/s40804-021-00212-4> accessed on 20 June 2021.

[124]In the United Kingdom, MSMEs represented more than 99% of all businesses in 2020. See <https://researchbriefings.files.parliament.uk/documents/SN06152/SN06152.pdf> accessed on 9 July 2021. Similar figures can be found in the United States: <https://cdn.advocacy.sba.gov/wp-content/uploads/2020/06/04144224/2020-Small-Business-Economic-Profile-US.pdf> accessed on 9 July 2021.

[125]In 2020, the United States and the United Kingdom were ranked 2nd and 14th, respectively in the insolvency resolution index of the World Bank's Doing Business Report. See <https://www.doingbusiness.org/en/data/exploretopics/resolving-insolvency> accessed on 9 July 2021.

[126]Merton Miller, 'Leverage' (1990) 46(2) The Journal of Finance 479, 484; Edward R Morrison and Andrea C Saavedra, 'Bankruptcy's Role in the COVID-19 Crisis' (2020) Columbia Law and Economics Working Paper No 624, 6–7, <https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3567127> accessed on 10 September 2020.

the creditors will be a better approach, especially taking into account that the judiciary in these countries is highly sophisticated, and therefore it will be more equipped to assess *ex post* the desirability of the decisions made by the directors. However, in countries without sophisticated courts, a duty to initiate insolvency proceedings will be more desirable, provided that there is an efficient insolvency framework for MSMEs in place.[127] In the absence of efficient insolvency proceedings for MSMES, a different approach should be adopted. For example, directors could be subject to a duty to prevent the company from incurring new debts that cannot be expected to be paid in full. Even if this approach has various drawbacks,[128] it can provide a more effective protection to creditors in the context of these firms that, due to several factors, including the involvement of the shareholders in the management of the company, and the inability of many MSMEs to know that they are no longer viable due to the lack of resources to obtain professional advice, there is a higher risk of shareholder opportunism.[129] Therefore, from an *ex ante* perspective, this solution can facilitate firms' access to finance, which is actually a major problem faced by many MSMEs around the world.[130]

6.5. Lessons for policymakers

The desirability of each regulatory model of directors' duties depends on the particular features of a country. Therefore, it cannot be argued that some models are necessarily more desirable than others.[131] As a result, any attempt to improve or design a regulatory framework of directors' duties in the zone of insolvency should take into account a variety of country-specific factors, including the sophistication of the judiciary, the efficiency of insolvency proceedings, the level of financial development, and the type of companies, creditors and corporate ownership structures prevailing in a country. Sometimes, the assessment of these features may suggest the adoption of one of the existing models analysed in this article. In other cases, however, regulators and policymakers may be required to be more creative when designing or improving the regulatory framework of directors' duties in the zone of insolvency.

[127] For an analysis of different regulatory strategies to design an efficient insolvency framework for MSMEs, see Aurelio Gurrea-Martinez, 'Implementing an Insolvency Framework for Micro and Small Firms' (n 102).
[128] See Section 5.4.
[129] See Gurrea-Martinez, 'Implementing an Insolvency Framework for Micro and Small Firms' (n 102).
[130] ibid
[131] Advocating for the superiority of the German model (based on a duty to initiate insolvency proceedings), however, see Thomas Bachner, 'Wrongful Trading – A New European Model for Creditor Protection?' (2004) 5 European Business Organization law Review 293. Suggesting that the UK model (based on wrongful trading provisions imposing a duty to minimise losses for the creditors) may be more efficient than the German approach, see Davies (n 4).

7. Conclusion

When a company becomes factually insolvent but it is not yet subject to a formal insolvency proceeding, the shareholders – or the directors acting on their behalf – may engage, even in good faith, in various forms of behaviour that can divert or destroy value at the expense of the creditors. For this reason, most jurisdictions around the world respond to this risk of shareholder opportunism with a variety of legal strategies, including the imposition of special directors' duties in the zone of insolvency. From a sample of more than 25 countries from North America, Europe, Latin America, Africa, Middle East, and the Asia-Pacific, this article has identified six primary regulatory models of directors' duties in the zone of insolvency existing around the world. After analysing the advantages and weaknesses of these models, it has been argued that none of the existing approaches is necessarily superior to the others. Instead, the desirability of a particular regulatory approach depends on a variety of country-specific and firm-specific factors.

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