Small Bus Econ (2020) 54:373–382 https://doi.org/10.1007/s11187-018-0039-z



brought to you by

Entrepreneurship and failure: two sides of the same coin?

Johan Eklund · Nadine Levratto · Giovanni B. Ramello

Accepted: 7 October 2017 / Published online: 13 April 2018 © The Author(s) 2018

Abstract This paper attempts to shed light on the nexus of relationships existing between failure, bankruptcy, institutional context, and local characteristics on one hand and entrepreneurship, firm survival, and performance on the other. The aim is to provide a larger vantage point from which to read the research included in this issue with the overall ambition to contribute to a better understanding of our entrepreneurial societies and the role of failure within markets. In this respect, the focus here is mainly on the institutions governing the bankruptcy procedures which do much more than simply regulating the exit of insolvent firms and protecting creditors' investments, minimizing the social cost of failures. They set up the revolving doors through which creditors can reinvest the recovered capital in new entrepreneurial projects and failed entrepreneurs can bring back to the market their skills and their entrepreneurial spirit for fostering new and hopefully successful ventures. Therefore, by managing bankruptcy, the institutions are not only protecting the economy. Instead, they have become a tool of economic policy, devoted to the delicate issue of regulating a physiological event to the market while avoiding too much waste of resources. In a more positive perspective, managing insolvency and failure is also a mean to strengthen competitiveness and growth, making it possible to stimulate the market in reshuffling skills and resources into new activities. A deeper understanding can in turn contribute to the implementation of better and more efficient policies by integrating bankruptcy as a natural component of firm and market life.

Keywords Entrepreneurship · Failure · Bankruptcy · Insolvency · Firms

JEL codes: D22 · G33 · L26

J. Eklund (⊠)

Swedish Entrepreneurship Forum and Blekinge Institute of Technology, Grevgatan 34, SE-114 53 Stockholm, Sweden e-mail: johan.eklund@bth.se

N. Levratto

Economix, CNRS, Université Paris Nanterre, Centre d'Etudes de l'Emploi et du Travail, 92000 Nanterre, France e-mail: nadine.levratto@parisnanterre.fr

G. B. Ramello (🖂)

Università del Piemonte Orientale, Dept. DiGSPES, v. Cavour, 84, 15121 Alessandria, Italy e-mail: giovanni.ramello@uniupo.it

1 Introduction

"Ever tried. Ever failed. No matter. Try again. Fail again. Fail better." Samuel Beckett's words in "Worstward Ho," published in 1983, which echo how his early artistic failures turned into great poetry, sound like a life lesson. This tenet fully applies to virtually every domain of human activity, especially in markets where it might represent an aspiring entrepreneur who tries, fails, tries again, and eventually succeeds. In effect, the path of most successful entrepreneurs is marked by a number of failures so that even though we cannot infer any causal relationship



from these failures (and it would be dangerous to do so), we can use the rule of thumb to assess that a great many accomplishments very often required a previous number of trials and relative failures. In a sense, this concept is embedded in many of the definitions of an entrepreneur (Ebner, 2006), which is an individual who not only discovers new successful combinations following Schumpeter Mark I (Schumpeter 1911) but also someone who can manage uncertainty (Knight, 1921).

However, since failing is a possibility for any entrepreneur, it represents a financial and psychological cost to the entrepreneur, his/her family, creditors and other stakeholders and, what is more, to society as a whole. For this reason, the cost of firm failure albeit functional to the market and to the economy should be minimized, calling for a better understanding of its possible causes. Accordingly, flourishing literature on failure and insolvency has become a regular companion to the literature on firms and entrepreneurship, entangling the topic with several nuances. A first stream of contributions, led by the seminal paper by Altman (1968), focuses on critical financial ratios that can help entrepreneurs and funders predict insolvency (Dimitras et al. 1996). A second stream of literature aims to determine the causes of firm bankruptcy by looking at variables beyond those that come from accounting books (Bottazzi, Grazzi, Secchi, and Tamagni, 2011; Lukason and Hoffman, 2014; (Lukason & Hoffman, 2014) Mueller and Stegmaier 2014). Other studies additionally propose methodologies and tools to improve the prediction of firm failures (Barboza et al. 2017, Zhao et al. 2017).

It is quite evident that most of these papers show the common trait of looking inside the firm in search of predictor signals, as if bankruptcy were something relating to the firm's operations and its internal characteristics, essentially neglecting the fact that firms do not exist in vitro, and they interplay in an environment in which great momentum is given by the external environment, including the institutional context. They rather seek to provide "other things equal" solutions.

The papers included in this special issue of course not only recognize the importance of the internal characteristics of the firms in determining success or the failure but also stress the importance of properly considering the impact of the external features, not only in establishing the boundaries for the entrepreneurial action but also in specifically providing incentives to the entrepreneurs. In this respect, the institutions governing the bankruptcy procedures do much more than simply regulating the exit of insolvent firms and protecting creditors' investments, minimizing the social cost of failures. They set up the revolving doors through which creditors can reinvest the recovered capital in new entrepreneurial projects and failed entrepreneurs can bring back to the market their skills and their entrepreneurial spirit for fostering new and hopefully successful ventures. Therefore, by managing bankruptcy, the institutions are not only protecting the economy, but rather they have become a tool of economic policy, devoted to the delicate issue of regulating on one hand a physiological event to the market while avoiding too much waste of resources, and on the other hand making it possible to stimulate the market itself in reshuffling skills and resources into new activities.

In this respect, the institutions, by managing bankruptcy, are no longer devoted to simply protect the economy or even to somewhat setting limits on the behavior of failed entrepreneurs, but rather operating the delicate issue of regulating a physiological event with the general aim of providing the proper stimuli to the market, for fostering as soon as possible the reshuffling of skills and resources into new, hopefully successful, entrepreneurial activities.

In other words, the institutional framework sets up part of the incentives affecting entrepreneurial action and is thus relevant not only for failed entrepreneurs but for the whole market. Today, the evolution of the legal system that characterizes bankruptcy has a profound impact on the dynamics of the creation of a firm and its life cycle, and finally, the economic system. So, for example, the limits on the responsibility of debtors are strictly related to risk-taking behaviors and finally on the promotion of entrepreneurship. We also argue that entrepreneurs take advantage of this permissive view and that new companies and SMEs, characterized by a higher probability of failure, benefit from bankruptcy laws at different stages of their life cycle.

On the whole, although we do not have any specific normative aim, the papers gathered in this special issue lead to practical recommendations and concrete business propositions that may help entrepreneurs, stakeholders, and business support organizations to determine and adopt the best performing strategies before, during, and after bankruptcy.



2 General framework: the metamorphosis of bankruptcy procedure

It took a very long time to transform failure from a pathology of the market, severely sanctioned, into a sort of a natural phenomenon, functional to the economic system and its dynamics. This change has been disruptive not only for what can be defined the metamorphosis of bankruptcy law but also for the policy supporting entrepreneurship in the modern markets. Technically speaking, bankruptcy law provides an institutional setting for tackling failures in the market. More precisely, it designs a procedure that should create a balance between debtor treatment, including her assets, and creditors' interests, while promoting the general social interest. In different jurisdictions, distinct bankruptcy procedures are available for corporate and individual debtors.² To a large extent, the design of the procedure depends on the political goal defined by the legislator so that the impact of failures on the economy largely varies according to whether it is more in favor of debtors or of creditors.

Even before any *de jure* bankruptcy law, many societies issued de facto harsh bankruptcy measures against insolvent debtors. In ancient Greece, if a man was unable to repay a debt, he and his family, including servants, were forced into "debt slavery," that is to say, bonded labor, until they had provided enough labor to permit the creditor to recoup their losses (Levinthal, 1919).³ An even harsher attitude towards failed entrepreneurs appears in one of the first bankruptcy laws, the Roman law of the XII Tables. There, bankruptcy was ruled by means of the *partes secanto*, a drastic measure

implying not only the splitting of the patrimony of the insolvent debtor among creditors but also his physical dismemberment into small pieces as a warning to the rest of the society. It is worth underlining that while these cruel measures were trying give back to creditors as much as possible of the debtor's remaining patrimony and conveying all the possible stigma to the failed entrepreneur, the complementary outcome was to put him/her in the condition of no longer practicing in the market.

Many elements thus characterized the law: the creditor protection, the social vengeance towards the wrongdoer (at least this was the perception of the failed entrepreneur), and also his/her elimination from the economic scene. For centuries, being a bankrupt entrepreneur was an outlaw, deserving shame and the harshest punishment, as if the failed entrepreneur was a sort of contagious infection to be cut out of the market and society as soon as possible.

The association of the failure to a crime was for a long time the rule as witnessed in the famous definition attributed to Baldo degli Ubaldi, a legal scholar of the fourth century illustrates: "decoctor ergo fraudator" (Santarelli 1964; in English something such as "to be bankrupt equates to be a crook"). While the balance between the first and the second issue experienced a change across the years so that, for example, the subsequent blend of Roman law with the Barbarian law shifted the emphasis from vengeance on the failed person to debt recovery, the elimination of the failed entrepreneur from the market remained as the necessary common trait for a very long time. Therefore, although across the centuries the "physical" measure against the failed merchant became softer, a clear tenet remained unchanged: a bankrupt entrepreneur is an evil that must be expunged from the economic system. Accordingly, again as an example, in Florence or in Genua, the "rotti"-i.e., failed-had their trading bench broken (from which "banco rotto," hence bankruptcy) to convey the clear message that they ought to avoid trade and commerce in the future, following the idea that a failed entrepreneur represented a danger to the economy and the society (Guglielmucci, 2006).

In the subsequent centuries, the severe attitude towards bankrupt entrepreneurs continued everywhere, implying in many cases jail for debt, with the aim once more of "punishing" the failed entrepreneur and taking him out of the market. In the meanwhile, increasing attention was directed to the recovery of the lost assets



¹ Bankruptcy law solves a collective action problem. When a debtor becomes insolvent, creditors have incentives to engage in a "run on the bank," enforcing their individual claims as quickly as possible, even if this results in a reduced overall value being obtained for the debtor's assets. In response, bankruptcy law provides a mandatory and orderly mechanism for the realization of the insolvent's assets (Jackson, 1982). ² In the USA, Chapter 7 and Chapter 11 bankruptcy proceedings are open both to individuals and to corporate debtors. However, many countries have different procedures for individuals and corporations, or distinguish according to whether the debtor is a "trader" (individual or corporate) or a consumer. In addition to collective enforcement, bankruptcy procedures open to individuals ("personal bankruptcy law") serve important social functions of providing social insurance against failure, and of punishing or rehabilitating financially distressed individuals (Adler et al. 2000).

³ A similar measure is found in a number of societies, like in the Code of Hammurabi of Babylonia, in ancient Egypt, and with the ancient Hebrews, as witnessed also by many Biblical references (Levinthal 1918).

of creditors, which may have come from a slowly increasing consciousness about the role of the legal incentives for investors.

It was only in the second half of the nineteenth century that most of the European countries moved towards the mitigation of the severity of bankruptcy law against debtors (Hautcoeur & Levratto, 2010, 2018; Sgard, 2006).4 Two concurring forces possibly led to this novel attitude towards failed entrepreneurs that brought about a deep transformation in the understandings of the bankruptcy system. On one hand, there was an increasing spread of the moral sentiment that failure was not necessarily equivalent to fault and that much of the entrepreneur's good faith was dependent on luck rather than on guiltiness. Of course, there can be a criminal side, as in the case of fraudulent bankruptcy. However, in most cases, failed entrepreneurs do not have any criminal intentions. On the other hand, a more economic view emerged showing that the bankruptcy system was setting incentives that have consequences for behaviors. Some of them were to the detriment of the creditors such as, for example, debtors scared by the implications of bankruptcy using extrajudicial agreements to hamper the creditors or simply delaying the declaration of bankruptcy (and then increasing their losses) in the vain hope of escaping bankruptcy's harshness (Hautcoeur & Di Martino, 2013). Others were much more connected with the discovery of the pivotal role of entrepreneurs as risk takers and economic innovators, and how bankruptcy can affect negatively both sides, to the detriment of not only potential investors but also the economic system as a whole (Lee, Yamakawa, Peng, & Barney, 2011; Peng, Yamakawa, & Lee, 2010).

Thus, a new consciousness started to emerge, seeing bankruptcy procedure as the locus to fine tune the individual interests of debtors and creditors, with the social interest of keeping entrepreneurship and risk-taking alive.

This change led to the mitigation of the "severity" for the debtor in two ways. First, some assets might be exempted from the process. Universally, debtors are

⁴ This institutional innovation concerning firm exit had an equivalent on the entry side with the introduction of the limited liability principle which is at the core of the modern corporation (Guinnane, Harris, Lamoreaux, & Rosenthal, 2007; Mueller, 2003). See also note 5.



entitled to retain living expenses, personal effects, and the like.⁵ Secondly, many jurisdictions or at least many courts allow a bankrupt entrepreneur to obtain a "fresh start," which after a certain timespan, permits the debtor to discharge outstanding credit obligations and to emerge from bankruptcy proceedings, making it possible to start new, hopefully successful entrepreneurial activities. The legal change in turn affected the sociological attitude towards failure so that the circumstance of "being bankrupt" or "having been bankrupt," once viewed solely as a signal of financial irresponsibility and general unreliability has now partially changed, although the de facto social stigmatization is more difficult to totally remove than the de jure, and it varies extensively across countries (Athreya, 2004).

Since the publication of the seminal paper by Claessens and Klapper (2005), international comparisons over time show that the number of bankruptcies varies tremendously between countries, but that common trends emerge. Doing business reports insist upon the fact that easy access to bankruptcy procedures is indicative of efficiency in financial distress resolution. Many governments around the world have thus initiated reforms in their bankruptcy regimes to open their procedures to a larger number of entrepreneurs and enterprises, diversifying the list of sectors allowed to file for bankruptcies while implementing procedures opening the possibilities for automatic stays. In today's view, entering a bankruptcy procedure is no longer seen, as least within the law, as the final act terminating the failed firms, but is often considered as a fundamental device, a revolving door through which resources and capabilities can be re-shuffled. The prevailing view is that failure is inseparable from trial and, in an entrepreneurial society (Audretsch, 2007), failure should be better accepted and less costly to incentivize business creation. In most OECD countries, failure and insolvency are thus facilitated, giving potential entrepreneurs more chances to undertake their projects (Lee et al. 2007; Lee et al. 2011; Peng et al. 2010).

However, beside the enouncement in the law on the books, much of the real perception depends also on the laws in action, that is to say, how the regulations are

⁵ In France, the so-called *patrimoine de la famille* (family heritage and wealth) was originally composed of the dower and nowadays is equivalent to the minimum income necessary to live. It cannot be seized. In the USA, debtors are also allowed to retain an interest in their homes, although the maximum value of this "homestead exemption" varies from state to state.

enforced and how effective the procedures are in the real world.⁶

3 Financing, the first and primary link between bankruptcy and entrepreneurship

One of the main results of the long and winding road concerning bankruptcy doctrine is the awareness that entrepreneurship and bankruptcy are in fact two faces of the same coin. We can take as a striking example of the interplay between starting and closing a business, two leading entrepreneurs in the digital world, Shawn Fanning and Shawn Parker, with accomplishments starting companies such as Snocap, Rupture, Facebook, Spotify, and Airtime.com. They were equally responsible for perhaps the largest bankruptcy case in US history, the Napster case, involving the first file sharing system, which was heavily targeted by the major recording companies until its shutdown. Despite this substantial failure, the institutional system did not preempt them from the possibility of new entrepreneurial activities.

The new consciousness is witnessed by a flourishing number of academic papers and institutional reports emphasizing that institutions influence economic agents' behavior and, as a consequence, entrepreneurial action (Simmons et al. 2014). Some specifically focus on bankruptcy procedures (Estrin et al. 2017, Lee et al. 2007). They not only show that creditor-friendly regimes tend to be more favorable to firm creation than debtor-friendly regimes but also provide evidence of the interaction between personal and corporate insolvency regimes.

Ideally, the studies included in this special issue try to pursue the very same direction and present some new results. In particular, our overall aim is to show that bankruptcy affects firm creation and propensity in several ways. Some are directly connected to financial stakes and asset recovery, which has been intensively studied in the literature (Eger 2001; La Porta, Lopez-de-Silanes, Shleifer, & Vishny, 1998) Others depend on a set of indirect yet still important transmission channels.

Let us recall first how a bankruptcy regime shapes the relationship between a firm and its stakeholders, among which lenders play a specific role. As providers of financial resources, banks are deeply involved in the projects undertaken by an entrepreneur, without having any control over their management. Moreover, as demonstrated by credit rationing theory, the asymmetry of information, worsened by the hands-off management system imposed on external investors, often causes a shortage of credit that can worsen the probability of an investment's success. Thus, the expectations of failure that are generally considered from a purely statistical point of view are worth introducing in the entrepreneurial process. The integration of the probability of bankruptcy from the start of any project leads to two key questions. What means are available in collective proceedings to distribute the risks among all the actors in a predictable, fair, and transparent way? What incentive mechanisms do collective proceedings promote to encourage economic agents to make sound decisions?

The solutions adopted associate a double objective to bankruptcy laws. On one hand, they incentivize debtors and creditors to develop new projects and, on the other hand, they ensure a good selection of companies by eliminating from the market those that are performing poorly while rescuing the others. Bankruptcy law is then essentially designed to keep businesses going and to protect the value of the company in the interest of stakeholders. To achieve this objective, collective proceedings must avoid competition among creditors and enable viable businesses with temporary problems to be filtered out from those with a structurally compromised future. Two types of efficiency determine the possibility of reaching these two objectives:

- ex ante efficiency, consisting of encouraging the economic agents (mainly entrepreneurs and creditors) to make the right decisions to avoid situations resulting in shortfalls of short-term liquidity and medium- or long-term insolvency. Here again the means available for collective proceedings must be balanced so as not to appear too disadvantageous and discourage the risk-taking inherent in entrepreneurship and the smooth workings of the market economy.
- ex post efficiency, consisting of liquidating only non-viable companies and maximizing, or at least protecting, the value of the company in the interest



⁶ On the pivotal role of enforcing institution in making regulation effective, see Marciano et al. (2018).

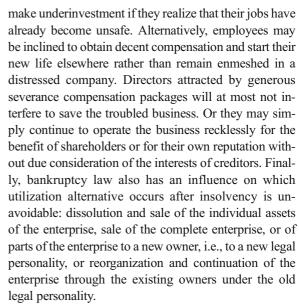
⁷ The definition comes from the documentary "Download" (2013), directed by Alex Winter.

⁸ A&M Records, Inc. v. Napster, 239 F.3d 1004 (9th Cir. 2001). The bankruptcy was then filed under Chapter 11 of the US Bankruptcy Code with the US Bankruptcy Court in Delaware in 2002.

of all the stakeholders and of the economy in general.

Keeping in mind that financing is the first step in any entrepreneurial project, a number of US commentators (Baird, 1986; Jackson, 2001; Jackson & Scott, 1989; Skeel, 1998, 2003) have for a long time argued that the proper functioning of insolvency law can be used to ease firms' financing. From this perspective, the judicial treatment of economic failure is seen in terms of a single objective: to maximize the collective return to creditors. Thus, the bankruptcy procedure is best seen as a "collectivized debt collection device" and a response to the "common pool" problem created when diverse "co-owners" assert rights against a common pool of assets (Finch 1997, p. 231). Moreover, Jackson (2001) states that these procedures should be seen as a system designed to mirror the agreement one would expect creditors to arrive at where they are able to negotiate such an agreement ex ante from behind a "veil of ignorance" (Jackson 2001, p. 17). In agreement with the conclusions of the Law and Economic movement, Jackson sees the collectivist, compulsory system as attractive to creditors in reducing strategic costs, increasing the aggregate pool of assets and as administratively efficient. From the opposite perspective, many other scholars consider that keeping firms in operation must be seen as a fundamental objective of bankruptcy laws (Armstrong and Cerfontaine 2000).

Because of its influence upon the sharing of remaining assets in case of failure, bankruptcy laws affect a firm's normal life. When insolvency becomes a possible option, significant changes to the existing governance structure occur. As information about the worsening performance spreads among stakeholders, they modify their behavior accordingly. In the vicinity of bankruptcy or when it becomes imperative, shareholders may prefer risky projects in consideration of their own short-term interests at the expense of the interests of creditors. Indeed, they know what is at stake is the money of creditors and the utmost loss for them is the fixed amount of share capital, which may be worth nothing in the case of insolvency. Shareholders may also simply prefer a quick exit than a long, troubled distress. In comparison, creditors, especially secured creditors, may want to realize their collateral as quickly as possible so that they can invest in other businesses. The result of such exits, however, is a decrease of the value of the pool of assets of the company. Employees may also



Bankruptcy laws also concern start-ups or normally operating companies. Indeed, creditors can make predictions about the consequences of their decisions prior to being involved in a run where the winners are the owners of securitized debts as organized by the law (Lamoreaux and Rosenthal 2005). As in the case of disclosure of information, this device was experimented with at the very beginning of the modern version of bankruptcy. Modern laws early on organized creditors as a class, introducing a clear cut between secured and unsecured debts. The rank of the liabilities determines the probability and the amount of repayment. However, the expectations of failure of any potential creditor makes upon financing a project exert an influence upon his will to become a creditor and upon the sort of credit he provides. Bankruptcy law influences how many credit contracts altogether are entered upon, under which conditions, and how much money is spent to examine the creditworthiness of the borrowers. In addition, the legal framework also influences the concrete use of the money lent, i.e., the business model and the investment strategy of the company, as well as the costs the lender is willing to expend on the control of the ongoing business.

In general, bankruptcy does not come into being as a sudden event springing out in a favorable period. On the contrary, payments disruption can be expected from signals that empirical works try to identify using either zeta score-based models or a more qualitative approach. Empirical evidence does not show a clear causal relationship between good governance practices and good



corporate performance mainly because it is almost impossible to determine if success results from a favorable conjuncture or from good practices. However, it is quite probable that corporate insolvency can be a predictable result of bad corporate governance when the company is still a going concern.

Moreover, governance arrangements instituted in ordinary life can still persist when companies become distressed. If so, it is very possible that what fits a safe company may be completely inappropriate for an endangered firm. For instance, even though creditors are protected collectively in insolvency, the interests of secured creditors over their collateral or security are expressly excluded from the collective distribution scheme. Alternatively, creditors can stipulate in their contracts with the company much stricter initiating terms than the general requirements in insolvency law. This form of credit rationing on terms other than prices is however scarcely studied from a theoretical point of view. It is precisely informed by surveys implemented by the Central banks. As a consequence, creditors may intervene in corporate governance when such terms are satisfied rather than when rescue efforts will be tried in vain. Therefore, pre-insolvency contractual arrangements may penetrate into the control structure around the invocation of insolvency.

4 Something entrepreneurs should know on insolvency

Whatever its nature, bankruptcy is accompanied by set of foreseeable and unexpected consequences that entrepreneurs and policy makers should know to contribute to the organization of a performing entrepreneurial system. The papers selected for the special issue have in common the attention paid to the influence of the institutional and economic framework on bankruptcy and on the reciprocal relationship since it is clearly established that the risk of bankruptcy shapes the economy. They provide empirical evidence on the diversity of the transmission channels thanks to the use of various individual, local, and national datasets covering different countries and periods.

A broad and extensive analysis of the interplay between insolvency regulation and entrepreneurship is provided by Kun Fu, Karl Wennberg, and Björn Falkenhall (this issue) in a paper showing that if firm creation is influenced by corporate bankruptcy laws, this relationship is different according to the type of rules and the type of entrepreneurship considered. The richness of the dataset used and the originality of the estimation technique implemented combine to provide robust and original results. Indeed, using multilevel modeling of approximately 300,000 individuals in 27 countries over the 2005-2010 period enables the authors to disentangle the somehow simplistic direct relationship between the legal context and the propensity of individuals to start a business, with major attention being paid to the nature of the entrepreneurial process. The distinction between opportunity-driven, necessity-driven, and innovative entrepreneurship contributes to a better understanding of the relationship between bankruptcy laws and entrepreneurship. When reforming the rules, policy makers should thus pay attention to the type of entrepreneurship affected by the changes introduced.

As a complement to this country comparison analysis, two papers propose a sub-national or local perspective. The first one, authored by Alessandro Melcarne and Giovanni Battista Ramello (this issue), sheds some light on how the time required by judges to make their decision on bankruptcy cases may exert an influence on firm demography. To clarify this relation, they provide an analysis of bankruptcy delays in 165 Italian first-instance tribunal districts between 2005 and 2011. Looking at the effective practices considerably enriches the "law in the books" usual perspective while showing that local socioeconomic factors combined with court organization contribute to a better explanation of the local levels of entry and exit rates. This unique mix of legal practices and entrepreneurial decisions contributes to the literature by showing that the law does not determine everything and that, instead, some significant differences may be noted at the local level.

The importance of the system in which firms are embedded in determining bankruptcy is also at the core of the paper by Giuseppe Arcuri and Nadine Levratto (this issue). Their analysis of a sample of firms incorporated in Italy between 2008 and 2012 shows that, despite the uniqueness of the formal institutions such as rules of law, constitutions, and civil and criminal codes, cross regional differences in the new firms' bankruptcy persist over time. They are mainly caused by the financial context, appreciated by their two main indicators, i.e., the local financial



development and banking concentration. The fragility of young companies is a major concern for policy makers, who tend to promote firm creation to prop up the local competitiveness and the local labor market. It is thus all the more important to be aware of the impact of public expenditures in favor of firm creation and to have a precise idea of the role of the local context, information provided by this research.

As decision makers of last resort, entrepreneurs remain very responsible for the direction of their business. Three papers explore this research field.

The article by Marcus Box, Karl Gratzer, and Xiang Lin (this issue) addresses the dark side of bankruptcy, that is to say the issue of the fraudulent behavior of entrepreneurs. Instead of assuming that entrepreneurs are all worried about the future of their business and unanimously try to make it successful and profitable, the authors introduce the possibility of deviant behaviors leading to destructive entrepreneurship. They mainly take the form of fraudulent bankruptcy, a phenomenon identified thanks to a comprehensive series on all bankruptcies and bankruptcy frauds in Sweden during nearly two hundred years (1830-2010) combined with several contemporary and historical sources, including archival materials. The results obtained show that fraudulent behavior should not be forgotten, that fraudulent bankruptcies depend on the legal context, and that destructive entrepreneurship may have effects on the economic system. This indirect and often hidden effect of bankruptcy regimes should merit the attention of legislators whenever they propose a change in the law, mainly because nothing can change if the agents primarily targeted by the reform maintain their deviant behavior.

As clearly stressed formerly, however, cheating does not motivate all entrepreneurs and bankruptcy is rarely the outcome of criminal intent. Rather, a large share of entrepreneurs fight hard to support their activity during crisis periods, as discussed by the paper of Marco Cucculelli and Valentina Peruzzi (this issue). Thanks to empirical analysis of a dataset covering 67,241 Italian manufacturing firms, this research clarifies the relationship between post-crisis firm survival, business model changes, and organizational learning, an explanatory chain that puts some emphasis on business model changes as a critical condition of survival. In this process, learning and firm dynamics are noted as major aspects to be

considered. One may expect that internal incentives and entrepreneurial motivations matter in determining which firms are able to make the proper decisions to capitalize on their weaknesses, making the good decisions to transform their business model and industrial strategy. It is, however, very possible that entrepreneurs and executive committees should not be alone when industrial transformation occurs since some strategies are shown to be less effective than others in reducing default probability. Business support organizations should be warned of this risk and could help in this field too.

Last but not least, entrepreneurs themselves are not the only ones to be touched by the transformation and the failure of their business. Employees are also concerned, as shown by Kristina Nyström in a paper (this issue) that raises the question of the capacity and willingness of displaced employees to create their own business. Whereas many efforts are devoted to promoting firm creation by employees fired after a firm closure, this phenomenon is still barely documented, mainly because of the lack of available data. Using a unique dataset of matched employer-employees providing information on entrepreneurial ventures started by displaced employees in Sweden during the period of 2001-2010, this research makes a great contribution to the understanding of dismissed employees' motivation and shows that all of them are far from equal in entrepreneurship and that the businesses they launch are fragile. This result should lead to a rethinking of policies promoting entrepreneurship as a solution to unemployment. Taking into consideration the increased rate of failure of this class of entrepreneurs would lead policy makers to systematically associate training and other types of support with the firm creation incentives to secure the candidates and improve their chance of survival.

Contributing to an enriched vision of the nexus of relationships between failure, bankruptcy, institutional context, and local characteristics on one hand and entrepreneurship, firm survival and performance on the other, the articles in this issue contribute to a better understanding of our entrepreneurial societies. In addition to their heuristic contribution, they can also contribute to the implementation of better and more efficient policies by integrating bankruptcy as a natural component of firm and market life.



Open Access This article is distributed under the terms of the Creative Commons Attribution 4.0 International License (http://creativecommons.org/licenses/by/4.0/), which permits unrestricted use, distribution, and reproduction in any medium, provided you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons license, and indicate if changes were made.

References

- Adler, B., Polak, B., & Schwartz, A. (2000). Regulating consumer bankruptcy: a theoretical inquiry. *The Journal of Legal Studies*, 29(2), 585–613. https://doi.org/10.1086/468086.
- Altman, E. I. (1968). Financial ratios, discriminate analysis and the prediction of corporate bankruptcy. *The Journal of Finance*, 23(4), 589–609. https://doi.org/10.1111/j.1540-6261.1968. tb00843.x.
- Armstrong, M. A., & Cerfontaine, A. (2000). Échecs économiques et dérive du pragmatisme juridique: l'expérience anglaise du droit de la faillite. *Droit et Société*, 46(1), 547–568. https://doi.org/10.3406/dreso.2000.1520.
- Athreya, K. (2004). Shame as it ever was: stigma and personal bankruptcy. Federal Reserve Bank of Richmond Economic Quarterly, 90(2), 1–19.
- Audretsch, D. B. (2007). Entrepreneurial Society. Entrepreneurial Society. Oxford: Oxford University Press. https://doi. org/10.1093/acprof:oso/9780195183504.001.0001
- Baird, D. G. (1986). The uneasy case for corporate reorganizations. *The Journal of Legal Studies*, 15(1), 127–147.
- Barboza, F., Kimura, H., & Altman, E. (2017). Machine learning models and bankruptcy prediction. *Expert Systems with Applications*, 83, 405–417. https://doi.org/10.1016/j.eswa.2017.04.006.
- Bottazzi, G., Grazzi, M., Secchi, A., & Tamagni, F. (2011). Financial and economic determinants of firm default. *Journal of Evolutionary Economics*, 21(3), 373–406. https://doi.org/10.1007/s00191-011-0224-6.
- Claessens, S., & Klapper, L. F. (2005). Bankruptcy around the world: explanations of its relative use. American Law and Economics Review. https://doi.org/10.1093/aler/ahi004
- Dimitras, A. I., Zanakis, S. H., & Zopounidis, C. (1996). A survey of business failures with an emphasis on prediction methods and industrial applications. *European Journal of Operational Research*, 90(3), 487–513. https://doi.org/10.1016/0377-2217(95)00070-4.
- Ebner, A. (2006). Institutions, entrepreneurship, and the rationale of government: an outline of the Schumpeterian theory of state. *Journal of Economic Behavior & Organization*, 59(4), 497–515.
- Eger, T. (2001). Bankruptcy regulations and the new German Insolvency Law from an economic point of view. *European Journal of Law and Economics*, 11(1), 29–46. https://doi.org/10.1023/A:1008761612177.
- Estrin, S., Mickiewicz, T., & Rebmann, A. (2017). Prospect theory and the effects of bankruptcy laws on entrepreneurial aspirations. *Small Business Economics*, 48(4), 977–997. https://doi.org/10.1007/s11187-016-9810-1.

- Finch, V. (1997). The measures of Insolvency Law. *Oxford Journal of Legal Studies*, 17(2), 227–251.
- Guglielmucci, L. (2006). Diritto fallimentare. Torino: Giappichelli editore.
- Guinnane, T., Harris, R., Lamoreaux, N. R., & Rosenthal, J.-L. (2007). Putting the corporation in its place. *Enterprise & Society*, 8(3), 687–729.
- Hautcoeur, P.-C., & Di Martino, P. (2013). The functioning of bankruptcy law and practices in european perspective (ca.1880-1913). Enterprise and Society. https://doi. org/10.1093/es/kht037
- Hautcoeur, P. C., & Levratto, N. (2010). Petites et grandes entreprises face à la faillite en France au 19e siècle : du droit à la pratique. In N. Levratto & A. Stanziani (Eds.), Le capitalisme au futur antérieur. Crédit et spéculation en France fin XVIIIe - début XXe siècles (pp. 199–265). Bruxelles: Bruylant Editions.
- Hautcoeur, P. C., & Levratto, N. (2018). Legal vs. economic explanations of the rise in bankruptcies in 19th century France. Revue d'Economie Industrielle, 160, forthcoming.
- Jackson, T. H. (1982). Bankruptcy, non-bankruptcy entitlements, and the creditors' bargain. Yale Law Journal, 91, 857–907.
- Jackson, T. H. (2001). The Logic and Limits of Bankruptcy Law. Beard Books.
- Jackson, T. H., & Scott, R. E. (1989). On the nature of bankruptcy: an essay on bankruptcy sharing and the creditors' bargain. Virginia Law Review, 75(2), 155–204.
- Knight, F. H. (1921). Risk, uncertainty, and profit. Boston, MA: Hart, Schaffner & Marx; Houghton Mifflin Co.
- La Porta, R., Lopez-de-Silanes, F., Shleifer, A., & Vishny, R. W. (1998). Law and finance. *Journal of Political Economy*, 106(6), 1113–1155. https://doi.org/10.1086/250042.
- Lamoreaux, N. R., & Rosenthal, J.-L. (2005). Legal regime and business's organizational choice: a comparison of France and the United States during the era of industrialization. *American Law and Economics Review*, 7, 28–61. https://doi.org/10.3386/w10288.
- Lee, S. Y., Peng, M. W., & Barney, J. B. (2007). Bankruptcy law and entrepreneurship development: a real options perspective. Academy of Management Review, 32(1), 257–272.
- Lee, S. H., Yamakawa, Y., Peng, M. W., & Barney, J. B. (2011). How do bankruptcy laws affect entrepreneurship development around the world? *Journal of Business Venturing*, 26(5), 505–520. https://doi.org/10.1016/j.jbusvent.2010.05.001.
- Levinthal, L. E. (1919). The early history of bankruptcy law. University of Pennsylvania Law Review and American Law Register, 66, 223–250.
- Lukason, O., & Hoffman, R. C. (2014). Firm bankruptcy probability and causes: an integrated study. *International Journal of Business and Management*, 9(11), 80–90. https://doi.org/10.5539/ijbm.v9n11p80.
- Marciano, A., Melcarne, A., & Ramello, G.B. (2018), The economic importance of judicial institutions, their performance and the proper way to measure them, *Journal of Institutional* Economics (forthcoming).
- Mueller, D. C. (2003). The corporation. Routledge.
- Mueller, S., & Stegmaier, J. (2014). Economic failure and the role of plant age and size. *Small Business Economics*, 44(3), 621–638. https://doi.org/10.1007/s11187-014-9616-y.
- Peng, M. W., Yamakawa, Y., & Lee, S. H. (2010). Bankruptcy laws and entrepreneur-friendliness. *Entrepreneurship: Theory and*



Practice, 34(3), 517–530. https://doi.org/10.1111/j.1540-6520.2009.00350.x.

- Schumpeter, J. A. (1911). The theory of economic development: an inquiry into profits, capital, credit, interest and the business cycle. New Brunswick (U.S.A) and London (U.K.): Transaction Publishers.
- Sgard, J. (2006). Do legal origins matter? The case of bankruptcy law in Europe (1808–1914)? *European Review of Economic History, 10*(3), 389–419.
- Simmons, S. A., Wiklund, J., & Levie, J. (2014). Stigma and business failure: implications for entrepreneurs' career choices. *Small Business Economics*, 42(3), 485–505. https://doi.org/10.1007/s11187-013-9519-3.
- Skeel, D. A. (1998). An evolutionary theory of corporate law and corporate bankruptcy. *Vanderbilt Law Review*, 51(5), 1326– 1398
- Skeel, D. A. (2003). Debt's dominion: a history of bankruptcy law in America. Princeton University Press.
- Zhao, D., Huang, C., Wei, Y., Yu, F., Wang, M., & Chen, H. (2017). An effective computational model for bankruptcy prediction using kernel extreme learning machine approach. Computational Economics, 49(2), 325–341. https://doi.org/10.1007/s10614-016-9562-7.

