

Jolly Ogbole

Law, Technology, and Entrepreneurship

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Promoting Innovation and Entrepreneurship By Mitigating The Cost of Failure.

## **Introduction and Background:**

In this paper, I advance the position that changes in law, precisely bankruptcy law, can create effects that promote the growth of innovation and entrepreneurship leading to potentially beneficial outcomes in economic development. Countries like the United States provide clear evidence that entrepreneurship is a crucial element in the spawning of innovation, employment creation and economic growth.<sup>1</sup> As a result of its potential dividends, governments and policy makers across countries of the world have welcomed the idea of a public policy on entrepreneurship.<sup>2</sup>

Though much emphasis is put on reducing barriers to entry for risk-loving entrepreneurs as a way of stimulating innovation and entrepreneurship,<sup>3</sup> there's however much less attention attributed to lowering the barriers to business exit as a back-end approach to fostering more innovative and entrepreneurial activity. In the life cycle of a product or innovation, the marketplace provides an efficient feedback mechanism for entrepreneurs to gauge the potential value of their product to a targeted market. Entrepreneurs will not be right every time about the perceived value of a given product. For this and a number of other contributing factors, some businesses in time will be phased out of the marketplace, regardless of initial costs accrued.

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<sup>1</sup> Van Praag, C. Mirjam, and Peter H. Versloot. "What Is the Value of Entrepreneurship? A Review of Recent Research." *Small Business Economics* 29, no. 4 (2007): 351-82. Accessed December 9, 2020. <http://www.jstor.org/stable/40229578>.

<sup>2</sup> Mazzucato, Mariana. *The Entrepreneurial State: Debunking Public Vs. Private Sector Myths*. United Kingdom: Penguin Books Limited, 2018.

<sup>3</sup> Busenitz, Lowell W., Carolina Gómez, and Jennifer W. Spencer. "Country Institutional Profiles: Unlocking Entrepreneurial Phenomena." *The Academy of Management Journal* 43, no. 5 (2000): 994-1003. Accessed December 10, 2020. <http://www.jstor.org/stable/1556423>.

According to numbers from the Bureau of Labor Statistics, 50 percent of business would exit in 5 years after market entry.<sup>4</sup>

It is imaginable that economic growth will suffer in a scenario where an entrepreneur has to wait 10 -15 years after a product failure due to debt accumulated, before they are allowed to bring another innovation to market. The expectation that persons as economic actors, under less punitive and prolonged bankruptcy systems, should be able to momentarily return to economic activity is a feature of progressiveness in any advanced society.<sup>5</sup>

A bankruptcy law that is forgiving has been anticipated to “increase the supply of would-be entrepreneurs”.<sup>6</sup> A bankruptcy law that is entrepreneurship-friendly lowers the exit barriers by availing relatively less painful exit procedures, that by implication lowers the entry barriers and risks for entrepreneurs to launch new business ideas.<sup>7</sup> Against this backdrop, a number of European countries have recommended the ready availability of a “fresh start” through personal bankruptcy laws as a mechanism for fostering entrepreneurship.<sup>8</sup> There are two types of bankruptcy laws, namely personal and corporate bankruptcy laws. I focus on the former in this paper.

In the remainder of this paper, as evidence that entrepreneurship-friendly bankruptcy laws are stimulative for innovative and entrepreneurship growth, I discuss documented empirical research in this field, comparing and contrasting the ex-ante and ex-post effect of a change in bankruptcy law; either by modification to an existing law or the introduction of a new law.

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<sup>4</sup> “Entrepreneurship and the U.S. Economy.” U.S. Bureau of Labor Statistics. U.S. Bureau of Labor Statistics, April 28, 2016. [https://www.bls.gov/bdm/entrepreneurship/bdm\\_chart3.htm](https://www.bls.gov/bdm/entrepreneurship/bdm_chart3.htm).

<sup>5</sup> Efrat, Rafael. The Fresh-Start Policy in Bankruptcy in Modern Day Israel. 7 *Am. Bankr. Inst. L. Rev.* 555 (1999)

<sup>6</sup> Armour, John, and Douglas Cumming. "Bankruptcy Law and Entrepreneurship." *American Law and Economics Review* 10, no. 2 (2008): 304.

<sup>7</sup> Lee, Seung-Hyun, and Yasuhiro Yamakawa. "Forgiving Features for Failed Entrepreneurs vs. Cost of Financing in Bankruptcies." *MIR: Management International Review* 52, no. 1 (2012): 49-79. Accessed December 9, 2020. <http://www.jstor.org/stable/41411019>.

<sup>8</sup> Armour, John, and Douglas Cumming. "Bankruptcy Law and Entrepreneurship." *American Law and Economics Review* 10, no. 2 (2008): 303-50. Accessed December 8, 2020. <http://www.jstor.org/stable/42705535>.

Interestingly, the literature in this area of the relationship of bankruptcy law and its effects on entrepreneurship, from an empirical standpoint; is only just emerging as the contributions of entrepreneurship to economic growth attains growing acclaim.<sup>9</sup>

### **The Case Of German Bankrupt Law:**

Germany introduced a new Insolvency code (*Insolvenzord*) that took effect on January 1, 1999.<sup>10</sup> The provisions of the law allowed private individuals to initiate insolvency proceedings.<sup>11</sup> The provisions also allowed for persons to be discharged (Time to discharge was reduced to six years in December 2001) of their debt after seven years of “good behavior”.<sup>12</sup> In the six year bond period, the insolvent is required to pay any income in excess of an exemption threshold of net income to the creditor. And this threshold is calculated as the amount sufficient for minimal cost of living, usually around 990 Euro per month for individuals without dependents.<sup>13</sup>

Prior to this reform, the previous bankruptcy law that was enacted as far back as 1877, provided almost no avenues for debt discharges for individuals debtors; such that after a bankruptcy was declared, they faced the expectation of ceding all future incomes exceeding the maintenance threshold till all debt was return in full, at times they did serviced the debts for the rest of their lives.<sup>14</sup>

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<sup>9</sup> Stoica, O, Roman, A., & Rusu, V.D. (2020). The Nexus between Entrepreneurship and Economic Growth:A Comparative Analysis on Groups of Countries. *Sustainability*, 12(3),1186.

<sup>10</sup> Fossen, Frank M. "Personal Bankruptcy Law, Wealth, and Entrepreneurship—Evidence from the Introduction of a "Fresh Start" Policy." *American Law and Economics Review* 16, no. 1 (2014): 269-312. Accessed December 10, 2020. <http://www.jstor.org/stable/24735703>.

<sup>11</sup> Braun, Eberhard, *Commentary on the German Insolvency Code*. Düsseldorf:IDW

<sup>12</sup> Fossen, Frank M. "Personal Bankruptcy Law, Wealth, and Entrepreneurship—Evidence from the Introduction of a "Fresh Start" Policy." *American Law and Economics Review* 16, no. 1 (2014): 269-312. Accessed December 10, 2020.

<sup>13</sup> *Id* at 273

<sup>14</sup> *Ibid*

It can be inferred that hardly anyone can live and function productively as a member of society if they have to keep paying debt all their lives. How can individuals be free to be innovative and pursue whatever entrepreneurial ideas in their minds when they are tied down in perpetuity with debt ?

The German personal bankruptcy law reform is of unique value to entrepreneurs owning unincorporated businesses such as proprietorship and partnerships.<sup>15</sup> This is because all business debt obligations, which are often larger relative to consumer debts, are personal debts obligations of the business owner. Hence, these entrepreneurs may initiate personal bankruptcy and leverage the possibility of a “fresh start”. The code provided a fresh start policy for the first time in Germany.<sup>16</sup>

Among a barrage of legitimate concerns, one of the issues that came into focus during the financial crisis of 2008 and 2009 was the economic consequences of bankruptcy law. With rising bankruptcies, policymakers advocated changes in bankruptcy statutes with a view to more effective restructuring and rebound of insolvent firms, targeted at limiting the consequences of the financial crisis, notably the loss of jobs and unemployment.<sup>17</sup> Bankruptcy law was also part of this conversation because small businesses make up the bulk of economic activity.<sup>18</sup>

In similar light, the bankruptcy policy debate in Germany also took center stage. So Angela Merkel’s coalition government agreed to work out a reform of German bankruptcy law.<sup>19</sup>

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<sup>15</sup> Fossen, Frank M. "Personal Bankruptcy Law, Wealth, and Entrepreneurship—Evidence from the Introduction of a "Fresh Start" Policy." *American Law and Economics Review* 16, no. 1 (2014): 269-312. Accessed December 10, 2020. <http://www.jstor.org/stable/24735703>.

<sup>16</sup> *Id at* 273

<sup>17</sup> *Ibid*

<sup>18</sup> Edmiston, Kelly D., The Role of Small and Large Businesses in Economic Development (June 2007). Available at SSRN: <https://ssrn.com/abstract=993821> or <http://dx.doi.org/10.2139/ssrn.993821>

<sup>19</sup> CDU, CSU, and FDP. 2009. "Wachstum. Bildung. Zusammenhalt. Koalitionsvertrag zwischen CDU, CSU und FDP, 17. Legislaturperiode" (Growth. Education. Coherency. Coalition agreement between CDU, CSU, and FDP, 17th legislative period). Available at: [http://www.cdu.de/doc/pdfc/091026-koalitionsvertrag\\_cducsu-fdp.pdf](http://www.cdu.de/doc/pdfc/091026-koalitionsvertrag_cducsu-fdp.pdf) (accessed December 8, 2020)

The minister of justice, Leutheusser-Schnarrenberger (2010), was quoted saying that “the reform of insolvency law is the most important project in business law”.<sup>20</sup> Furthermore, she said again in 2012 that “those who exhibit entrepreneurial spirit deserve legal frame conditions that encourage them in their decision to depart into self employment”.<sup>21</sup> On June 7, 2013, both chambers of parliament (*Bundestag*) and (*Bundesrat*) added modifications to the German bankruptcy law that took effect on July 1, 2014.<sup>22</sup> The provisions of this modification and additions included additional preconditions as follows: debtors have to pay back at least 35 percent of their debt and pay the fees for the legal proceedings upfront to be eligible for the discharge from their debt after three years.<sup>23</sup> However, if the second but not the first precondition is fulfilled, the time to discharge is shortened to five years, otherwise it would remain six years.<sup>24</sup>

Given the contentious dynamics of making reforms and introducing amendments to laws like Bankruptcy law, especially considering the seemingly zero-sum characteristics of creditor and debtor relationship, theorizing is often insufficient and unconvincing. Consequently, an empirical angle is often necessary, if not required to help establish the position for leniency in Bankruptcy law.

In a related paper, (Fossen, 2014) conducted an empirical analysis of the German, January 1, 1999 personal bankruptcy law, as a quasi-experiment in a number of hypotheses related to the introduction of the “fresh start” policy.<sup>25</sup> Of the hypotheses formulated, one relevant to the argument of this paper is whether the fresh start policy increases the “individual

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<sup>20</sup> Fossen, Frank M. "Personal Bankruptcy Law, Wealth, and Entrepreneurship—Evidence from the Introduction of a "Fresh Start" Policy." *American Law and Economics Review* 16, no. 1 (2014):274

<sup>21</sup> *Id at 274*

<sup>22</sup> *Ibid*

<sup>23</sup> Fossen, Frank M. "Personal Bankruptcy Law, Wealth, and Entrepreneurship—Evidence from the Introduction of a "Fresh Start" Policy." *American Law and Economics Review* 16, no. 1 (2014): 274.

<sup>24</sup> *Ibid*

<sup>25</sup> *Id at 271.*

probabilities of entry into self-employment and of being self-employed (short: entrepreneurial activity).”<sup>26</sup>

The model adapted a non-linear differences-in-differences estimation strategy (DiDs).<sup>27</sup> A DiDs estimator works by contrasting a group identified as being “treated” by the policy change with an affected comparison group. The differences in these changes is interpreted as the average treatment effect of the policy reform on the treated population, conditional on robustness checks. In addition, identification of a causal effect requires the common trend assumption, which states that in the absence of the policy change, the net change in the outcome would have been similar for both treated and controlled populations or groups. In the application of this model, the less wealthy potential entrepreneurs are the treatment and more wealthy are the controlled comparison group<sup>28</sup> as arguably, of course; bankruptcy law would be of more utilization for less wealthy potential entrepreneurs.

Using this estimation strategy on household panel data, and after robustness checks and effect heterogeneity, (Fossen, 2014 ) results indicated that “the fresh start” makes entrepreneurship more attractive, especially for the less wealthy. And sensitivity analysis shows that the results were robust.”<sup>29</sup> The study and findings by (Fossen, 2014) added to the growing empirical literature advancing the value of a less punitive bankruptcy law for entrepreneurship. These policies can accelerate entry and the introduction of products and innovations to the market.

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<sup>26</sup> *Id at 280*

<sup>27</sup> Blundell, Richard, and Monica Costa Dias. 2009. "Alternative Approaches to Evaluation in Empirical Microeconomics," 44 *Journal of Human Resources* 565-640

<sup>28</sup> Fossen, Frank M. "Personal Bankruptcy Law, Wealth, and Entrepreneurship—Evidence from the Introduction of a "Fresh Start" Policy." *American Law and Economics Review* 16, no. 1 (2014):288

<sup>29</sup> *Id at 299.*

### **Anticipated Counter Arguments and Response:**

A valid opposing argument against less punitive bankruptcy statutes is that it can have a negative effect on the credit system, and on financial institutions. This is in the form of high interest rates by credit and lending institutions. As (Mankart & Jochen, 2012) aptly stated, “the alternative to declare bankruptcy provides entrepreneurs with insurance against the financial consequences of business failures. However, it comes at the cost of worsened credit market conditions.”<sup>30</sup> While this is a valid counter argument, it certainly does not remove from the positive externalities of an entrepreneurship-friendly law.

Studies have also responded to this legitimate concern by stipulating the idea of an optimal bankruptcy law.<sup>31</sup> (Lee & Yamakawa, 2012) in an empirical study that utilized a cross-country database of 28 countries, over a 15 years period, examined the correlation between two forgiving features (a fresh start in personal bankruptcy law, and automatic stay of assets in corporate bankruptcy law) of a bankruptcy law.<sup>32</sup> (Lee & Yamakawa, 2012) found that though these two features bear the same forgiving nature, a “fresh start” policy encourages new firm entry but an automatic stay of assets does not. The implication of this is that all bankruptcy laws are not created equally. (Estrin et al., 2017) have argued in another study that prospect theory explains why certain aspects of bankruptcy laws may not be as attractive as others for creditors and entrepreneurs.<sup>33</sup>

Associated relevant studies conducted in this area do not invalidate or discount the potential high interest rates effects of a lenient bankruptcy law; instead findings show a positive

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<sup>30</sup> Mankart, Jochen: Personal Bankruptcy Law, Debt Portfolios, and Entrepreneurship. Discussion Paper - Department of Economics, Nr. 2012-16 : 2012, S. 41. 2.

<sup>31</sup> *Id.*

<sup>32</sup> Lee, Seung-Hyun, and Yasuhiro Yamakawa. "Forgiving Features for Failed Entrepreneurs vs. Cost of Financing in Bankruptcies." *MIR: Management International Review* 52, no. 1 (2012): 49-79. Accessed December 9, 2020. <http://www.jstor.org/stable/41411019>.

<sup>33</sup> Estrin, S., Mickiewicz, T., Rebmman, A. (2017). Prospect theory and the effects of bankruptcy laws on entrepreneurial aspirations. *Small Business Economics*, 48(4), 977–997.

net benefit. As (Fossen, 2014) found, the “insurance effect of a more forgiving personal bankruptcy law exceeds the interest rate effect and encourages less wealthy individuals into entrepreneurship”.<sup>34</sup>

Cynicism is another plausible but less compelling counter argument. That is the thinking that with lenient bankruptcy laws, there is a possibility for individuals to abuse the provisions by starting up businesses with the intent of acquiring loans without genuineness of commitment to ensuring their business’ survival. This argument is certainly a likely possibility, nonetheless as of yet, there’s no empirical evidence showing that this is the dominant pattern of the behaviors of entrepreneurs. As well as showing the statistically significant effect of such patterns on the societal benefits that can be gained from Bankruptcy laws reforms. It would be fair to add that until that happens taking such a position amounts largely to adopting a pessimist view to the potential and intentions of innovators and entrepreneurs with ideas to bring solutions to many of the world’s pressing problems. Great ideas no matter how innovative would never fly without the required funding; from prototype to scale and market stages.<sup>35</sup>

## **Conclusion:**

If many of the entrepreneurs the world has had today were forced to never try again after their initial failure, the world would probably have never seen many of the innovations that it now benefits from. Or it might have been forced to wait longer, and we cannot tell what the costs of that to society would be. There are costs to entrepreneurship, both individual and societal costs. Nonetheless, as evidence shows, the societal positive externalities significantly outweigh the costs. So changes in bankruptcy statutes holds potential to stimulate entrepreneurship that has

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<sup>34</sup> Fossen, Frank M. "Personal Bankruptcy Law, Wealth, and Entrepreneurship—Evidence from the Introduction of a "Fresh Start" Policy." *American Law and Economics Review* 16, no. 1 (2014): 271. Accessed December 10, 2020. <http://www.jstor.org/stable/24735703>.

<sup>35</sup> Isaacson, Walter. *The Innovators: How a Group of Hackers, Geniuses, and Geeks Created the Digital Revolution*. United Kingdom: Simon & Schuster, 2014.



a consequential effect of stimulating innovation and growth. The optimal bankruptcy law will help stimulate innovative and entrepreneurial activity. As such further contribution to the literature with respect to the determination of what makes for an optimal bankruptcy law across different countries should be the focus of future study in this area.

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