

Cumming, Douglas J.

Article

Measuring the Effect of Bankruptcy Laws on Entrepreneurship Across Countries

The Journal of Entrepreneurial Finance (JEF)

Provided in Cooperation with:

The Academy of Entrepreneurial Finance (AEF), Los Angeles, CA, USA

Suggested Citation: Cumming, Douglas J. (2012) : Measuring the Effect of Bankruptcy Laws on Entrepreneurship Across Countries, The Journal of Entrepreneurial Finance (JEF), ISSN 2373-1761, The Academy of Entrepreneurial Finance (AEF), Montrose, CA, Vol. 16, Iss. 1, pp. 80-86

This Version is available at:

<https://hdl.handle.net/10419/96222>

Standard-Nutzungsbedingungen:

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.

Terms of use:

Documents in EconStor may be saved and copied for your personal and scholarly purposes.

You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.

If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.

Measuring the Effect of Bankruptcy Laws on Entrepreneurship Across Countries

Douglas J. Cumming
York University

Abstract

Two recent papers examine the impact of corporate bankruptcy laws on new business start-ups in 29 countries over 1990 - 2008 (Peng et al., 2010; Lee et al., 2010). In this commentary, I briefly point out two significant issues which future researchers might want to consider. First, several countries in the data examined had changed their personal and corporate bankruptcy laws over the years studied. It is statistically inappropriate and inaccurate to treat bankruptcy laws as time invariant, as in Peng et al. (2010) and Lee et al. (2010), particularly in view of the dramatic changes in bankruptcy laws over time in so many countries. Second, Peng et al. (2010) and Lee et al. (2010) have a misplaced focus on corporate bankruptcy law while ignoring personal bankruptcy law. This focus is at odds with theory and prior work on topic which relates entrepreneurship to personal bankruptcy law.

Two recent papers examine the impact of corporate bankruptcy laws on new business start-ups in 29 countries over 1990 - 2008 (Peng et al., 2010; Lee et al., 2010). In this comment, I briefly point out two significant issues which future researchers might want to consider. First, several countries in the data examined had changed their personal and corporate bankruptcy laws over the years studied. For example, a number of European countries including Austria, Belgium, Denmark, Finland, France, Germany, and the Netherlands changed their bankruptcy laws to such a degree that they modified the availability of a “fresh start”, while other countries modified the number of years until a fresh start was available, such as Canada and the U.K. These changes were documented and coded by Armour and Cumming (2006, 2008). Moving from a regime without a fresh start to one with a fresh start is such a dramatic change that it is effectively a completely different regime, and as such it is simply wrong to treat bankruptcy laws for these countries as being time invariant over the years 1990 - 2008.

The cross-country and time-variant bankruptcy legal data coded by Armour and Cumming (2008) was made available to a broad audience in 2005 through posting online at www.ssrn.com (<http://ssrn.com/abstract=762144>) and, moreover, was directly sent to the authors of the Peng et al. (2010) and Lee et al. (2010) papers in 2008 by Cumming, Sapienza, Siegel, and Wright (2009). Armour and Cumming (2008, Table 1 and Appendix) provide the actual legal sources and coded indices that can be used by others interested in carrying out similar research; these indices are not available in other sources. I provide these legal indices in Table 1 and encourage others with an interest in studying cross-country differences in entrepreneurship to consider not merely differences across countries but also differences over time.

[Insert Table 1]

To treat bankruptcy laws as time invariant over the years 1990-2008 for the countries considered in Peng et al. (2010) and Lee et al. (2010) is tantamount to not empirically studying the effect of bankruptcy laws on entrepreneurship, but rather, examining how countries themselves are different due to correlations with other legal variables (e.g., La Porta et al., 1998) and cultural variables (Hofstede et al., 2002). In view of the vast changes in bankruptcy laws across countries and over time, it is necessary and appropriate to consider difference-in-differences estimates with country - fixed effects and corrections for autocorrelation in the dependent variable (Bertrand et al., 2004); these procedures were implemented by Armour and Cumming (2008). Failure to consider legal changes over time and autocorrelation in the dependent variable and country – fixed effects with panel data (as in Peng et al., 2010, and Lee et al., 2010) is equivalent to regressing “noise on noise” (Bertrand et al., 2004).

Second, Peng et al. (2010) and Lee et al. (2010) use indices of corporate bankruptcy laws taken from the summary statistics developed by Classens and Klapper (2005). As a theoretical matter, these statistics were developed to explain how often companies use bankruptcy procedures in different countries after incorporation. Related work shows how the costs of incorporation affect entrepreneurial activity (Djankov et al., 2002; Klapper et al., 2006; Van Stel et al., 2007). For the different context of explaining rates of entrepreneurship in reference to bankruptcy law, *personal* bankruptcy law is widely regarded as having a direct influence on entrepreneurship since creditors frequently demand personal guarantees from owner-managers, which constitute a “contracting out” of the liability - shield incorporation otherwise given to the entrepreneur. Further, prior to incorporation entrepreneurs typically

have to use personal finances, which of course ties directly to personal bankruptcy law. As such, while not considered by Peng et al. (2010) and Lee et al. (2010), other prior work that studies the rates of entrepreneurship in reference to bankruptcy laws has, in fact, considered and focused on personal bankruptcy laws (Jackson, 1985, 1986; Alder et al., 2000; Insolvency Service (UK), 2001; Georgakopoulos, 2002; Fan and White, 2003; Berkowitz and White, 2004; Baird and Morrison, 2005; White, 2005; Armour and Cumming, 2006, 2008; Ayotte, 2007).

The impact of the availability of a fresh start in personal bankruptcy is worth highlighting (White, 2005). A forgiving bankruptcy law, in particular one that offers a fresh start from pre-bankruptcy debts, will permit inframarginal entrepreneurs (those who are willing to become entrepreneurs even in the absence of insurance) to re-enter the economy rapidly after a business failure (Georgakopoulos, 2002; Ayotte, 2007). With an unforgiving bankruptcy law and no discharge from pre-bankruptcy debts, the entrepreneur must pay the majority of her future income to past creditors. A more forgiving bankruptcy law, measured in a way that includes the possibility of a fresh start, may unambiguously be expected to be associated with a greater overall level of entrepreneurship—both by increasing entry at the margin and by increasing re-entry within the margin. The availability of a fresh start, among other things in bankruptcy law, has varied considerably over time in different countries around the world. Future research would fruitfully make use of such time series changes to better understand how bankruptcy laws are, in fact, related to entrepreneurial friendliness.

Table 1. Summary Statistics for Bankruptcy Indices

This table summarizes the bankruptcy indices used in the empirical analyses in the subsequent tables for each country, from the bankruptcy statutes from each country, as presented in Armour and Cumming (2007).

	Discharge: Concerns discharge from prebankruptcy indebtedness available for an entrepreneur who has either been trading as a sole proprietor or guaranteed debts of a closely-held private company.		Minimum capital to form private company, in 2005 Euros (1/E).	Exemptions: This relates to prebankruptcy assets which are exempted from the bankrupt estate and so retained by the debtor. Takes value 1 if exemptions of assets from the bankruptcy estate cover only personal items, tools of trade, etc. Takes value 0 if exemptions are more generous. Takes value 2 if exemptions are ‘negative’, i.e. spousal property can be pulled into the estate.	Disabilities: restrictions on and economic bankruptcy. Takes value 0 if no disabilities or power to deal with bankrupt estate or civic disabilities to vote, hold membership groups); Takes value 1 if economic disabilities or restrictions on being involved in management of a company); Takes value 2 if interference with travel (i.e. prohibition without consent of trustee); Takes value 3 if may be incarcerated or payment of debts.
	Discharge Available? Takes value 0 if discharge available, 1 if not available.	Discharge Years: If discharge available, value is number of years until typical discharge; if discharge unavailable, value is life expectancy minus 40.			
Austria	1990-1994: 1; 1995-2005: 0	1990-1994: 37; 1995-2005: 7	1990-2005: €35000	1990-2005: 2	1990-1994: 0
Belgium	1990-1997: 1; 1998-2005: 0	1990-1997: 37; 1998-2005: 0	1990-1998: €6174; 1999-2005: €18500	1990-2005: 1	1990-1994: 0
Canada	1990-2005: 0	1990-1992: 1; 1993-2005: 0.75	1990-2005: €0	1990-2005: 0	1990-1994: 0
Denmark	1990-2004: .5; 2005: 0	1990-2004: 5; 2005: 3	1990-1991: €10732; 1992-1996: €26831; 1997-2005: €16769	1990-2005: 1	1990-1994: 0
Finland	1990-1992: 1; 1993-2005: 0	1990-1992: 37; 1993-2005: 5	1990-2005: €2500	1990-2005: 1	1990-1994: 0
France	1990-1993: 0; 1994-2005: .5	1990-2005: 0	1990-2002: €7500; 2003-2005: €0	1990-2005: 2	1990-1994: 0
Germany	1990-1998: 1; 1999-2005: 0	1990-1998: 37; 1999-2000: 7; 2001-2005: 6	1990-2005: €25000	1990-2005: 0	1990-1998: 0

Greece	1990-2005: 1	1990-2005: 20	1990-1992: €587; 1993- 1998: €8804; 1999-2002: €17608; 2003-2005: €18000	1990-2005: 1	1990-1997:
Ireland	1990-2005: 0	1990-2005: 12	1990-2005: €0	1990-2005: 1	1990
Italy	1990-2005: 1	1990-2005: 38	1990-2003: €10300; 2004-2005: €10000	1990-1992: 2; 1993- 2005: 1	1990
Netherlands	1990-1998: 1; 1999- 2005: 0	1990-1998: 38; 1999-2005: 3	1990-2005: €18000	1990-2005: 2	1990
Spain	1990-2005: 1	1990-2005: 15	1990-2005: €3000	1990-2005: 1	1990
Sweden	1990-2005: 1	1990-2005: 10	1990-2005: €10749	1990-2005: 1	1990
UK	1990-2005: 0	1990-2003: 3; 2004-2005: 1	1990-2005: €0	1990-2005: 1	1990
USA	1990-2005: 0	1990-2005: 0	1990-2005: €0	1990-2005: 0	1990

REFERENCES

- Alder, Barry, Ben Polak, and Alan Schwartz, 2000, "Regulating Consumer Bankruptcy: A Theoretical Inquiry," *Journal of Legal Studies* 29, 585 - 613.
- Armour, John, and Douglas J. Cumming, 2006, "The Legislative Road to Silicon Valley," *Oxford Economic Papers* 58, 596 - 635.
- Armour, John, and Douglas J. Cumming, 2008, "Bankruptcy Law and Entrepreneurship," *American Law and Economics Review* 10, 303 - 350.
- Ayotte, Kenneth M. 2007, "Bankruptcy and Entrepreneurship: The Value of a Fresh Start," *Journal of Law, Economics, and Organization* 23, 161 - 185.
- Baird, Douglas G., and Ed R. Morrison, 2005, "Serial Entrepreneurs and Small Business Bankruptcies," *Columbia Law Review* 105, 2310 - 2368.
- Berkowitz, Jeremy, and Michelle J. White, 2004, "Bankruptcy and Small Firms' Access to Credit," *RAND Journal of Economics* 35, 69 - 84.
- Bertrand, Marianne, Esther Duflo, and Sendhil Mullainathan, 2004, "How Much Should We Trust Difference in Difference Estimates?" *Quarterly Journal of Economics* 119, 249 - 275.
- Claessens, Stijn, and Leorra Klapper, 2005, "Bankruptcy Around the World: Explanations of its Relative Use," *American Law and Economic Review* 7, 253-283.
- Cumming, Douglas J., Harry Sapienza Don Siegel, and Mike Wright, 2009, "International Entrepreneurship: Managerial and Public Policy Implications," *Strategic Entrepreneurship Journal* 3, 283 - 296.
- Djankov, Simeon, Rafael La Porta, Florencio Lopez-de-Silanes, and Andrei Shleifer, 2002, "The Regulation of Entry," *Quarterly Journal of Economics* 117, 1 - 37.
- Fan, Wei, and Michelle J. White, 2003, "Personal Bankruptcy and the Level of Entrepreneurial Activity," *Journal of Law and Economics* 46, 543 - 568.
- Georgakopoulos, Nicholas L., 2002, "Bankruptcy Law for Productivity," *Wake Forest Law Review* 37, 51 - 95.
- Hofstede, Geert, Niels G. Noorderhaven, A. Roy Thurik, Lorraine M. Uhlaner, Alexander R.M. Wennekers, and Ralph E. Wildeman, 2002, "Culture's Role in Entrepreneurship: Self-Employment Out of Dissatisfaction," in T.E. Brown and J. Ulijn (eds.), *Innovation, Entrepreneurship and Culture: The Interaction Between Technology, Progress and Economic Growth*, Northampton, MA, Edward Elgar Publishing.
- Insolvency Service (UK). 2001. *Bankruptcy: A Fresh Start*. London: Insolvency Service.
- Jackson, Thomas H., 1985, "The Fresh-Start Policy in Bankruptcy Law," *Harvard Law Review* 98, 1393 - 1448.

- Jackson, Thomas H., 1986, *The Logic and Limits of Bankruptcy Law*. Cambridge, MA: Harvard University Press.
- Klapper, Leorra, Luc Laeven, and Raghuram Rajan, 2006, "Entry Regulation as a Barrier to Entrepreneurship," *Journal of Financial Economics* 82, 591 - 629.
- La Porta, Rafael, Florencio Lopez-De-Silanes, Andrei Shleifer, and Robert Vishny, 1998, "Law and Finance," *Journal of Political Economy* 106, 1113 - 1155.
- Lee, Seung-Hyun, Yasuhiro Yamakawa, Mike W. Peng, Jay B. Barney, 2011, "How do Bankruptcy Laws Affect Entrepreneurship Development around the World?" *Journal of Business Venturing* 26, 505 – 520.
- Peng, Mike W., Seung-Hyun Lee, and Yasuhiro Yamakawa, 2010, "Bankruptcy Laws and Entrepreneur-Friendliness," *Entrepreneurship Theory and Practice*, 34, 517 - 530.
- Van Stel, André, David J. Storey, and A.Roy Thurik, 2007, "The Effects of Business Regulations on Nascent and Young Business Entrepreneurship," *Small Business Economics* 28, 171 - 186.
- White, Michelle J., 2005, "A General Model of Personal Bankruptcy: Insurance, Work Effort, and Opportunism," Working Paper, University of California, San Diego, presented at 2005 American Law and Economics Association Annual Meeting.