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A LEXIMETRIC APPROACH TO COMPARATIVE CORPORATE GOVERNANCE: THE CASE OF HEDGE FUND ACTIVISM

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1 INTRODUCTION

In recent years, quantitative research related to comparative law has received considerable attention from researchers, especially financial economists, who have analysed comparative law in numbers in order to trace the relationship between, on the one hand, legal rules and legal institutions of a nation and, on the other hand, their financial and corporate governance systems. In the context of corporate governance research,¹ such quantification of comparative law has come to be associated with the measurement of legal rules protecting the rights of shareholders and has been used to test a number of hypotheses concerning the potential impact of shareholder protection on the structure and effectiveness of financial and corporate governance systems.² To date, comparative numerical measures have been developed in various areas of law including securities regulation,³ the regulation of labour protection,⁴ creditor protection,⁵ the quality of government,⁶ the regulations of the entry of new firms⁷ and dispute resolution in courts.⁸ One of the key messages of this new field of research, often called ‘law and finance’, is that ‘law matters’, in the sense that legal rules that protect

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¹ According to a popular definition by Andrei Shleifer and Robert Vishny: ‘Corporate governance deals with the ways in which suppliers of finance to corporations assure themselves of getting a return to their investment’. (Shleifer, A and Vishny, RW (1997) ‘A Survey of Corporate Governance’ (52) *Journal of Finance* 737 at 737.

² The seminal work in this area of research is La Porta, R; Lopez-de-Silanes, F; Shleifer, A and Vishny, RW (1998) ‘Law and Finance’ (106) *Journal of Political Economy* 1113.

³ La Porta, R; Lopez-De-Silanes, F and Shleifer, A (2006) ‘What Works in Securities Laws?’ (61) *Journal of Finance* 1.

⁴ Botero, JC; Djankov, S; La Porta, R, Lopez-De-Silanes, F and Shleifer, A (2004) ‘The Regulation of Labor’ (119) *Quarterly Journal of Economics* 1339.

⁵ LLSV ‘Law and Finance’ supra note 2.

⁶ La Porta, R; Lopez-de-Silanes; F, Shleifer, A and Vishny, RW (1999) ‘The Quality of Government’ (15) *Journal of Law, Economics, and Organization* 222.

⁷ Djankov, S; La Porta, R; Lopez-de-Silanes, F and Shleifer, A (2002) ‘The Regulation of Entry’ (117) *Quarterly Journal of Economics* 1.

⁸ Djankov, S; La Porta, R; Lopez-de-Silanes, F and Shleifer, A (2003) ‘Courts’ (118) *Quarterly Journal of Economics* 453.

shareholders and other corporate stakeholders typically constitute the foundation of well-developed markets and shape corporate governance.

Legal researchers have also joined in this field of research and have advanced the so-called 'leximetric' coding techniques. Leximetric coding builds upon the comparative law principle of functionality and involves a series of steps to be taken in assigning numerical values to relevant legal rules.⁹ Such coding results in the construction of indices which can be used in statistical analysis. Although leximetric coding originated in the area of shareholder protection, leximetric datasets have also been developed in the area of labour regulation and creditor protection.¹⁰ These leximetric datasets have been used for various purposes, such as attempts to trace the evolution of legal rules across countries and over time, or attempts to challenge claims that a country's legal origin (eg whether it is a common law or a civil law system) plays an important role in the development of its company law and economic institutions.¹¹

Nevertheless, and despite the enormous impact of the quantification of comparative law in economic and legal academic circles, comparatists working with more traditional, non-quantitative, methods have mostly reacted with discomfort to the use of numbers and statistical techniques to address comparative law questions across a large number of countries.¹² Most of this criticism has been directed at the revival of the idea of legal origins and at the simplistic, and sometimes misleading, generalisations made about different legal systems.¹³ Today, however, quantitative methods in comparative law are becoming more and more widespread, and are increasingly perceived as an extension of traditional, non-quantitative, comparative law methods.¹⁴

The aim of this article is to show how leximetric coding techniques, combined with econometric analysis, can be used to examine similarities and differences across a large number of different legal systems, and to address the question of the extent to which the 'law

⁹ Lele, PP and Siems, MM (2007) 'Shareholder Protection: a Leximetric Approach' (7) *Journal of Corporate Law Studies* 17 (hereafter, 'Leximetric I').

¹⁰ Armour, J; Deakin, S; Lele, LL and Siems, M (2009) 'How Legal Rules Evolve: Evidence from a Cross-Country Comparison of Shareholder, Creditor and Worker Protection' (57) *American Journal of Comparative Law* 579.

¹¹ See eg Lele and Siems 'Leximetric I' supra note 9; Armour, J; Deakin, S; Sarkar, P; Siems, M and Singh, A (2009) 'Shareholder Protection and Stock Market Development: An Empirical Test of the Legal Origins Hypothesis' (6) *Journal of Empirical Legal Studies* 343 (hereafter, 'Shareholder Protection and Stock Market Development').

¹² Michaels, R (2009) 'Comparative Law by Numbers - Legal Origins Thesis, Doing Business Reports, and the Silence of Traditional Comparative Law' (57) *American Journal of Comparative Law* 765 at 766.

¹³ *Ibid.*, 772.

¹⁴ See eg Reitz, J (2009) 'Legal Origins, Comparative Law, and Political Economy' (57) *American Journal of Comparative Law* 847.

matters'. The focus is on the quantification of shareholder protection rules, and on the contribution that such rules can make to a recent international corporate governance phenomenon, namely hedge fund activism. From a methodological point of view, this study falls into what is known as 'numerical comparative law'. This term refers to all kinds of quantitative comparative analysis using legal data.¹⁵ The term covers both studies which try to establish a causal link between law and other variables ('statistical comparative law'), and studies which concern simple counts.¹⁶ Its overall feature is that not only empirical data, but also the 'law as such', are translated into numbers.¹⁷

This article is part of a larger study examining the relationship between hedge fund activism and law. The study has been conducted on the basis of a heuristic model, in which an activist hedge fund campaign is viewed as a sequence of four stages: entry → trading → disciplining → exit.¹⁸ Using this four-stage model several empirically testable hypotheses about the relationship between hedge fund activism and various legal rules, such as mandatory disclosure, ownership disclosure and shareholder protection, have been derived. In this article the focus is on the impact of shareholder protection rules on the entry stage of an activist hedge fund campaign. The hypothesis is that activist hedge funds should primarily target companies incorporated in countries with stronger shareholder protection regimes. This claim is tested by means of statistical analysis using leximetric coding to account for shareholder protection and a hand-collected dataset of activist hedge fund campaigns across 25 countries from 2000 to 2010. The empirical findings lend support to the posited relationship between hedge fund activism and shareholder protection.

The rest of this article is organised as follows. Section 2 provides an overview of the coding methods of legal rules protecting the rights of corporate governance actors, such as shareholders. Section 3 contains an examination of international hedge fund activism and a brief sketch of the relationship between law and hedge fund activism. This relationship is the theoretical framework on which the larger project is based and provides the background to the testable hypothesis. Section 3 also contains an overview of the data, the empirical

¹⁵ Siems, MM (2005) 'Numerical Comparative Law - Do We Need Statistical Evidence in Law in Order to Reduce Complexity?' (13) *Cardozo Journal of International and Comparative Law* 521.

¹⁶ Siems, MM and Deakin, S (2010) 'Comparative Law and Finance: Past, Present and Future Research' (166) *Journal of Institutional and Theoretical Economics* 120.

¹⁷ See also Siems 'Numerical Comparative Law' supra note 15 at 523.

¹⁸ Katelouzou, D (2012) 'Hedge Fund Activism, Corporate Governance and Corporate Law: an Empirical Analysis Across 25 Countries' (Ph.D Thesis, University of Cambridge); Katelouzou, D (forthcoming) 'Worldwide Hedge Fund Activism: Dimensions and Legal Determinants' (16) *University of Pennsylvania Journal of Business Law*; also available at: <<http://ssrn.com/abstract=2357547>>, accessed 5 December 2014 (hereafter, 'Worldwide Hedge Fund Activism').

methodology and the main empirical findings. Section 4 consists of an account of some limitations of leximetric coding and econometric techniques, the potential benefits of these methods and further questions for future research. Section 5 concludes.

2 NUMERICAL COMPARATIVE LAW: QUANTIFYING SHAREHOLDER PROTECTION

‘Law and Finance’ Literature

The influential work of four financial economists, Rafael La Porta, Florencio López-de-Silanes, Andrei Shleifer, and Robert Vishny, often referred to by the initials of their surnames as LLSV, deserves the credit for introducing large sample, quantitative methods into the comparative study of law. LLSV looked at the quantifiable effects that differing legal rules and their enforcement have on ownership structures and financial development, and the resulting effects on economic development. In their article ‘Law and Finance’, they examined the shareholder and creditor protection of 49 countries and coded the laws in force in circa 1993.¹⁹

With respect to shareholder protection, LLSV developed an anti-director rights index (ADRI), using six variables that were intended to capture how strongly the legal system favours minority shareholders against the board of directors and managers in the corporate decision-making process.²⁰ Of the six ADRI variables, the first three (‘proxy mail allowed’, ‘shares not blocked before the meeting’, ‘cumulative voting’) are concerned with shareholder voting, while the other three relate to the following matters: the availability of a legal mechanism for minority shareholders (who own 10% of share capital or less) to seek redress in case of expropriation by directors; the degree to which the law provided for shareholders to have pre-emption rights in respect of new share issues; and the ability of shareholders owning more than 10% of a company’s share capital to call a shareholders’ meeting.

LLSV allocated each country a ‘0’ or ‘1’ for each variable. They then drew on the aggregate values of these shareholder protection proxies as independent variables in statistical regressions and reported correlations between the extent of legally mandated

¹⁹ LLSV ‘Law and Finance’ supra note 2 at 1129.

²⁰ LLSV also used two additional variables as proxies for shareholder protection: ‘one share, one vote’, and ‘mandatory dividend’. See *ibid.*, 1126-34.

shareholder protection, on the one hand, and various financial and ownership structure indicators, on the other. The main hypothesis was—and still is—that better investor protection (measured by both the character of legal rules and the quality of their enforcement) results in better-developed capital markets.

LLSV also drew on the work of prominent traditional comparatists to group their sample countries into legal families/origins,²¹ and they compared the legal origin of the law they studied with the resulting indices.²² LLSV found that good shareholder protection, as measured by the ADRI, had a quantifiable effect on financial development ('law matters') and that the quality of law varied with the origin of a country's legal system ('legal origin matters'). Taking these two elements together, they concluded that this meant that legal origin affects economic growth in an exogenous, or independent, way.²³ In other words, their findings suggest that international differences in the ownership structures and other financial mechanisms of corporate governance are due to differences in the legal and institutional framework within which firms operate.

The quantification of shareholder protection rules by LLSV was a path-breaking innovation and the original ADRI has been widely used as a measure for shareholder protection in many follow-up studies to establish correlations in a wide variety of subjects, some well beyond economic development.²⁴ The impact of this line of research has been enormous, with the World Bank taking the LLSV findings into account in order to assess the quality of law and legal institutions.²⁵

Along with its enormous impact, however, the original ADRI has come under serious attack. A number of scholars have criticised the index for coding errors,²⁶ for inaccuracies in

²¹ David, R and Brierley, JEC (1985) *Major Legal Systems in the World Today: An Introduction to the Comparative Study of Law* (3rd ed) Stevens and Sons; Zweigert, K and Kötz, H (1998) *Introduction to Comparative Law* (3rd ed) Oxford University Press.

²² LLSV 'Law and Finance' supra note 2.

²³ La Porta, R; Lopez-de-Silanes, F and Shleifer, A (2008) 'The Economic Consequences of Legal Origins' (46) *Journal of Economic Literature* 285.

²⁴ See eg La Porta, R; Lopez-de-Silanes, F; Shleifer, A and Vishny, RW (2000) 'Agency Problems and Dividend Policies around the World' (55) *Journal of Finance* 1 (dividend policies); La Porta, R; Lopez-de-Silanes, F; Shleifer, A and Vishny, RW (2002) 'Investor Protection and Corporate Valuation' (57) *Journal of Finance* 1147 (valuation of corporate assets); La Porta, R; Lopez-de-Silanes, F; Shleifer, A and Vishny, RW (2000) 'Investor Protection and Corporate Governance' (5) *Journal of Financial Economics* 3 (access to external finance); Dyck, A and Zingales, L (2004) 'Private Benefits of Control: an International Comparison' (59) *Journal of Finance* 537 (to private benefits of control); Licht, AN; Goldschmidt, C and Schwartz, SH (2005) 'Culture, Law, and Corporate Governance' (25) *International Review of Law and Economics* 229 (country's cultural profile).

²⁵ The World Bank Group, *Doing Business: Benchmarking Business Regulation*, available at: <http://www.doingbusiness.org>, accessed 20 January 2014.

²⁶ Spamann, H (2006) 'On the Insignificance and/or Endogeneity of La Porta et al's 'Anti-Director Rights Index' under Consistent Coding' Harvard Law School John M Olin Center Discussion Paper No 7, available at: <<http://ssrn.com/paper=894301>>, accessed 20 January 2014.

certain values,²⁷ for conceptual ambiguity in the definition of some variables,²⁸ for simplicity in the judgment (binary coding),²⁹ for ‘home-country bias’ in the choice of the variables,³⁰ and for inappropriate weighting of the six rights.³¹ Comparative lawyers are also critical of the revival of the legal origins theory, and challenge the simplicity of the common law/civil law dichotomy.³²

Addressing some of these concerns, in a 2008 article La Porta, López-de-Silanes and Shleifer, together with Simeon Djankov, developed a revised ADRI for 72 countries based on laws and regulations applicable to publicly traded firms in May 2003.³³ The revised ADRI codes the same six areas of shareholder protection as the original index, but it addresses some of the coding mistakes of the original ADRI and defines the variables more precisely.³⁴ Despite its merits compared to its original form, the revised ADRI has generated considerable criticism in legal academic circles, especially with respect to the difficulty of reproducibility.³⁵

A Legal Response: The CBR Shareholder Protection Index

However contestable LLSV’s work may be, there are comparatists who find parallels between the quantification of law endorsed by LLSV and traditional comparative law, and

²⁷ For Germany, see Braendle, UC (2006) ‘Shareholder Protection in the USA and Germany - ‘Law and Finance’ Revisited’ (7) *German Law Journal* 257; Cools, S (2005) ‘The Real Difference in Corporate Law between the United States and Continental Europe’ (30) *Delaware Journal of Corporate Law* 697 at 697; for Belgium and France, see Vagts, D (2002) ‘Comparative Company Law: The New Wave’ in Schweitzer, RJ, Burkert, H and Gasser, U (eds) (2002) *Festschrift für Jean Nicolas Druet zum 65 Geburtstag* Schulthess 595.

²⁸ Lele and Siems ‘Leximetric I’ supra note 9 at 22.

²⁹ Baums, T and Scott, KE (2005) ‘Taking Shareholder Protection Seriously? Corporate Governance in the U.S. and Germany’ (17) *Journal of Applied Corporate Finance* 44.

³⁰ Berglöf, E and Von Thadden, E-L (1999) ‘The Changing Corporate Governance Paradigm: Implications for Transition and Developing Countries’ Conference Paper, Annual World Bank Conference on Development Economics, Washington DC, available at: <<http://ssrn.com/paper=183708>>, accessed 18 January 2014.

³¹ Berkowitz, D; Pistor, K and Richard, JF (2003) ‘Economic Development, Legality, and the Transplant Effect’ (47) *European Economic Review* 165; Berkowitz, D; Pistor, K and Richard, J-F (2003) ‘The Transplant Effect’ (51) *American Journal of Comparative Law* 163; Coffee, JC (2001) ‘The Rise of Dispersed Ownership: The Role of Law in Separation of Ownership and Control’ (111) *Yale Law Journal* 1; Graff, M (2008) ‘Law and Finance: Common Law and Civil Law Countries Compared—An Empirical Critique’ (75) *Economica* 60.

³² See eg Siems, M (2007) ‘Legal Origins: Reconciling Law & Finance and Comparative Law’ (52) *McGill Law Journal* 55; Hadfield, GK (2008) ‘The Levers of Legal Design: Institutional Determinants of the Quality of Law’ (36) *Journal of Comparative Economics* 43.

³³ Djankov, S, La Porta, R; Lopez-de-Silanes, F and Shleifer, A (2008) ‘The Law and Economics of Self-Dealing’ (88) *Journal of Financial Economics* 430.

³⁴ For instance, one of the key differences between the original and the revised forms of the ADRI is that the latter draws a distinction between enabling provisions and mandatory and default rules. See *ibid.*, 454.

³⁵ Spamann, H (2010) ‘The “Antidirector Rights Index” Revisited’ (23) *Review of Financial Studies* 467.

argue for stronger interdisciplinarity between the two methods.³⁶ An interdisciplinary project on ‘Law, Finance and Development’, based at the Centre for Business Research (CBR) of the University of Cambridge, provided a legal response to the LLSV research and has constructed new time series indices on shareholder, creditor and worker protection in order to review the mechanisms by which legal institutions affect financial development.³⁷

The CBR team has developed ‘leximetric’ data coding techniques, which build upon a more accurate understanding of comparative law principles and provide an empirically more grounded account of variation across the legal and regulatory regimes of different countries and across time. Leximetric coding of legal rules is comprised of several stages leading ultimately to the construction of an index as a measurement of a phenomenon of interest (eg shareholder protection). The researcher first chooses one or more variables or indicators that best reflect shareholder protection across the countries of interest. The index variables are selected as proxies for shareholder protection. In order to express these variables in numerical terms, the researcher devises a coding algorithm (or schema) which sets out the areas of law to be taken into account (eg statutory and case law or listing rules) and the types of rules to be coded (eg mandatory vs default rules). In addition to the primary sources, the coding algorithm includes a measurement scale of binary (0.1) or non-binary coding (eg ½, ¼). Finally, the researcher has to decide whether and/or how the variables will be weighted. The final result is an index that can be used to reveal trends over time in legal changes and to make inferences, ie using facts we know to learn about facts that we do not know.³⁸

As part of its quantitative research, the CBR team coded the development of shareholder protection for over three decades (1970-2005) across five countries (Germany, France, the UK, the US and India) and built an index of shareholder protection with 60 variables.³⁹ Subsequently, the CBR researchers extended the shareholder protection index to 20 countries using ten variables as proxies for shareholder protection law over the period

³⁶ See eg Michaels ‘Comparative Law by Numbers’ supra note 12; Siems, M (2014) *Comparative Law* Cambridge University Press.

³⁷ For the outputs of this project, see the website of the Centre for Business Research (CBR), available at: <<http://www.cbr.cam.ac.uk/research/programme2/project2-20output.htm>>.

³⁸ On statistical inference, see generally Epstein, L and King, G (2002) ‘The Rules of Inference’ (69) *University of Chicago Law Review* 1.

³⁹ Lele and Siems ‘Leximetric I’ supra note 9.

1995-2005.⁴⁰ The 10-variable CBR shareholder protection index (CBR-SPI) has recently been extended across 30 countries between 1990 and 2013.⁴¹

The ten variables of the CBR-SPI take non-binary scores between 0 (indicating little or no shareholder protection) and 1 (indicating strong shareholder protection).⁴² The first two variables cover issues relating to the power of the general meeting for de facto changes (ie sale of more than 50% of the company's assets) (Variable 1) and the power of shareholders to put an item on the agenda of a general meeting (Variable 2). The next two variables reflect the way in which voting takes place, and relate to proxy voting (Variable 3) and the prohibition of multiple voting rights (Variable 4). Variable 5 codes rules mandating independent board membership, while Variable 6 codes the power of shareholders to dismiss board directors. The CBR-SPI also includes indicators of the legal support for private enforcement of rights by shareholders against directors (Variable 7) and shareholder action against resolutions of the general meeting (Variable 8). The last two variables code rules protecting shareholders in the event of a change in control, ie the mandatory bid rule (Variable 9) and disclosure of major share ownership (Variable 10).

The development of the CBR-SPI is based on coding methods which have sought to address limitations inherent to the ADRI.

First, the CBR-SPI has reviewed the mechanisms by which shareholder protection rules affect financial development by working with a better understanding of both corporate law and comparative law principles. For instance, the choice of variables and the scores given to them reflect the idea of 'functional equivalents', according to which different legal systems may achieve the same goal through different means, depending on local contexts and conditions.⁴³ By embracing the functional method, the CBR researchers were attempting to place numerical comparative law within the traditional comparative law methodological framework, and to create legal indices that could better represent the law in any given jurisdiction. The CBR team also tries to minimise any 'home bias' by identifying a more generally representative set of variables as the basis for coding.⁴⁴

⁴⁰ Siems, MM (2008) 'Shareholder Protection Around the World (Leximetric II)' (33) *Delaware Journal of Corporate Law* 111 (hereafter, 'Leximetric II').

⁴¹ Katelouzou, D and Siems, M (forthcoming) 'Disappearing Paradigms in Shareholder Protection: Leximetric Evidence for 30 Countries, 1990-2013' (15) *Journal of Corporate Law Studies*.

⁴² The coding protocols are available at <http://www.cbr.cam.ac.uk/research/projects/project2-20output.htm>.

⁴³ Zweigert and Kötz 'Introduction to Comparative Law' supra note 21 at 39-40; Michaels, R (2006) 'The Functional Method of Comparative Law' in Reinmann, M and Zimmermann, R (eds) (2006) *The Oxford Handbook of Comparative Law* Oxford University Press 339.

⁴⁴ See eg Lele and Siems 'Leximetric I' supra note 9 at 24.

Further, the CBR-SPI takes into account a wider range of legal and regulatory information.⁴⁵ Whereas LLSV focused on formal legal rules protecting shareholders from oppressive treatment on the part of the incumbents, the CBR-SPI includes not only relevant statutory law and court decisions, but also self-regulatory rules such as provisions found in soft law codes of corporate governance and take-over regulations. Unlike LLSV, the CBR-SPI also takes into account both mandatory and default rules. Another issue that the CBR team considered is that of the weighting of the variables. The CBR-SPI uses continuous or graduated scores on a 0-1 scale to capture the degree of variation in the strength of a rule, as opposed to the dichotomous, or binary, ones used by LLSV. A further key methodological difference between the ADRI and the CBR-SPI is that, in the latter, lawyers trained in the jurisdictions did the actual coding.⁴⁶ More importantly, the CBR-SPI is longitudinal so as to make possible to track the process of legal change over time in a systematic way, while the ADRI only provides cross-sectional data and fails to examine the time-variant relationship between legal change and stock market development.⁴⁷

The construction of the CBR-SPI was not done for its own sake, but in order to facilitate statistical testing of posited relationships between shareholder protection rules, on the one hand, and economic outcomes, on the other. The CBR researchers found that the quality of shareholder protection rules is positively correlated to the stock market development only in common law countries and in developing ones.⁴⁸ This means that shareholder protection rules have an independent, long-run causal effect on financial development only in some national contexts. It was suggested that the results indicated that legal systems are ‘quasi-endogenous’ with regard to the economy in the sense of being shaped, to a certain extent, by their economic and political environment.⁴⁹ In the corporate governance context, this implies that shareholder-orientated corporate rules can operate as exogenous independent variables, capable of shaping the behaviour of corporate governance actors in the ways suggested by the legal origins theory and also, potentially, in other ways.⁵⁰

⁴⁵ Ibid., 25-29.

⁴⁶ Ibid., 25.

⁴⁷ Armour et al ‘Shareholder Protection and Stock Market Development’ supra note 11 at 351-53.

⁴⁸ Deakin, S; Sarkar, P and Singh, A (2012) ‘An End to Consensus? The Selective Impact of Corporate Law Reforms on Financial Development’ in Aoki, M; Deakin, S and Gintis, H (eds) (2012) *Complexity and Institutions: Markets, Norms and Corporations* Palgrave Macmillan 189.

⁴⁹ Armour et al ‘Shareholder Protection and Stock Market Development’ supra note 11 at 375.

⁵⁰ Buchanan, J; Chai, DH and Deakin, S (2014) ‘Empirical Analysis of Legal Institutions and Institutional Change: Multiple-methods Approaches and their Application to Corporate Governance’ (10) *Journal of Institutional Economics* 1.

Let us now consider more precisely how a recent but important corporate governance phenomenon, namely the brand of shareholder activism associated with activist hedge funds, is shaped by shareholder protection rules, and examine how leximetrics can be used to investigate whether cross-country differences in shareholder protection account for the emergence of hedge fund activism.

3 LEXIMETRICS AND HEDGE FUND ACTIVISM

The Incidence and Nature of International Hedge Fund Activism

Shareholder activism, particularly of the type engaged in by activist hedge funds and other active asset managers, is a recent, but now prominent, topic in academic and policy debates in corporate governance. Activist hedge funds first appeared in the United States in the late 1990s, but they moved to the forefront in the mid-2000s.⁵¹ The feature which distinguishes hedge fund activism from other forms of shareholder engagement with portfolio companies is its proactive nature. Conventional institutional investors, such as pension funds and insurance companies, are typically reactive. They intervene only when they perceive that a portfolio company is underperforming. Rather than react to events of underperformance or deficient management, activist hedge funds proactively initiate changes. This style of engagement has two defining features:

first, it presupposes the active accumulation of an equity stake as a departure point—activist hedge funds either do not have a pre-existing stake in the target company, or they have a small one which they quickly increase when they decide to adopt a hands-on strategy; and

second, activist hedge funds aim to change the policies of the targeted companies in order to extract value.⁵²

⁵¹ Cheffins, BR and Armour, J (2011) 'The Past, Present and Future of Shareholder Activism by Hedge Funds' (37) *Journal of Corporation Law* 51.

⁵² Katelouzou, D (2013) 'Myths and Realities of Hedge Fund Activism: Some Empirical Evidence' (7) *Virginia Law and Business Review* 459 (hereafter, 'Myths and Realities of Hedge Fund Activism').

Many empirical studies report that activist hedge fund campaigns in the United States generate abnormal stock returns, particularly around the announcement date of the activist event.⁵³ Recent empirical evidence further suggests that activist hedge funds are not only able to achieve their investment objective of profiting from shareholder activism, but can also provide a form of discipline, especially against the agency problems associated with free cash flow, and can create improved long-term performance.⁵⁴

As activist hedge funds in the United States had become successful in generating above-market rates of return for the funds and their investors, they turned to other markets in Europe and Asia.⁵⁵ However, this export of hedge fund activism has not resulted in duplicates of American practice, but in considerable diversity.

Notably, the number of activist hedge fund campaigns differs significantly across countries. Data that I have compiled on instances of shareholder activism by hedge funds and similarly structured collective investment vehicles provide a helpful way of tracking the internalisation of this phenomenon.⁵⁶ The data relates to the period between January 1, 2000 and December 31, 2010. The geographic area chosen involves the following 25 countries: Australia, Argentina, Brazil, Canada, Chile, China, Czech Republic, France, Germany, India, Italy, Japan, Latvia, Malaysia, Mexico, the Netherlands, Pakistan, Russia, Slovenia, South Africa, Spain, Sweden, Switzerland, Turkey and the United Kingdom.⁵⁷ The hand-collected dataset contains information from publicly available sources, press reports and regulatory filings on 'significant holdings' from Dow Jones Factiva.⁵⁸ The sample consists of 129 activist hedge funds and 432 activist campaigns for the period 2000 and 2010, involving 408 unique target companies.

⁵³ For a review of the economic literature on hedge fund activism, see Brav, A; Jiang, W and Kim, H (2009) 'Hedge Fund Activism: A Review' (4) *Foundations and Trends in Finance* 185.

⁵⁴ Bebchuk, LA; Brav, A and Jiang, W (forthcoming) 'The Long-Term Effects of Hedge Fund Activism' (114) *Columbia Law Review*.

⁵⁵ For multi-country studies of hedge fund activism outside the United States, see Becht, M; Franks, JR and Grant, J (2010) 'Hedge Fund Activism in Europe' ECGI - Finance Working Paper No 283/2010, available at: <<http://ssrn.com/paper=1616340>>, accessed 14 April 2014; Katelouzou 'Myths and Realities of Hedge Fund Activism' supra note 52 at 459.

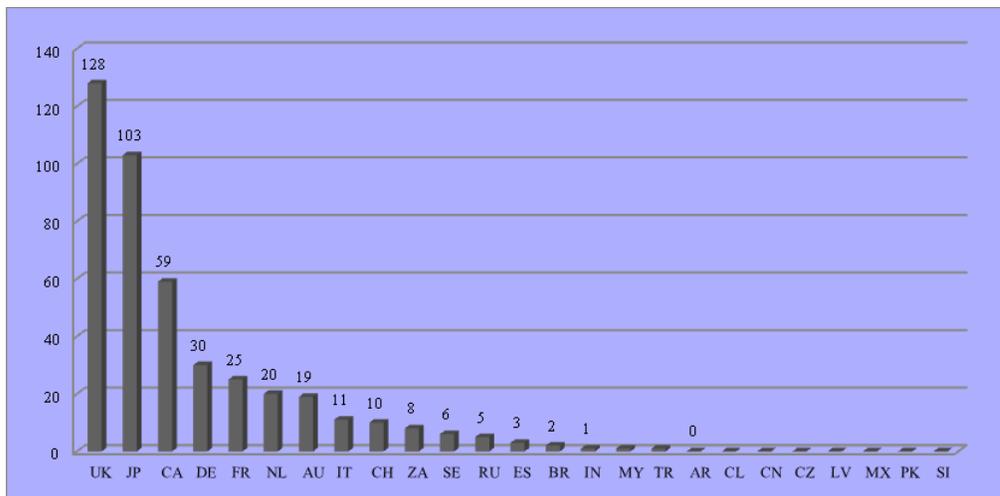
⁵⁶ Katelouzou 'Myths and Realities of Hedge Fund Activism' supra note 52.

⁵⁷ Hedge fund activism in the American context is not included in my sample because it has been examined in detail in prior literature. See eg Brav, A; Jiang, WEI; Partnoy, F and Thomas, R (2008) 'Hedge Fund Activism, Corporate Governance, and Firm Performance' (63) *Journal of Finance* 1729 (hereafter, 'Hedge Fund Activism').

⁵⁸ Given my sample countries, I faced insurmountable hurdles in collecting comparable data from mandatory filings of block-shareholdings. The disclosure thresholds for substantial acquisitions of shares in a company differ across the sample countries, and therefore, it is not possible to identify the first purchase based, for example, on a 5% block-holder definition.

Figure 1 contains a breakdown of the activist hedge fund campaigns by the target company's country. Among a total of 432 activist campaigns identified, UK and Japanese companies dominate the sample, making up 53.47% of the total targets. Activist hedge funds engage in oversight activities less often in Continental Europe and developing countries, such as China or Turkey. Within Europe, UK companies are by far the dominant target of activist hedge funds. Figure 1 shows that almost 53.8% of the activist hedge fund campaigns taking place in Europe target UK companies. German companies are the second, much smaller, target of activist hedge funds in Europe.

Fig. 1 Hedge Fund Activism Outside the United States



The following abbreviations are used: AR (Argentina), AU (Australia), BR (Brazil), CA (Canada), CH (Switzerland), CL (Chile), CN (China), CZ (Czech Republic), DE (Germany), ES (Spain), FR (France), IN (India), IT (Italy), JP (Japan), LV (Latvia), MX (Mexico), MY (Malaysia), NL (Netherlands), PK (Pakistan), RU (Russian Federation), SE (Sweden), SI (Slovenia), TR (Turkey), UK (United Kingdom), ZA (South Africa)

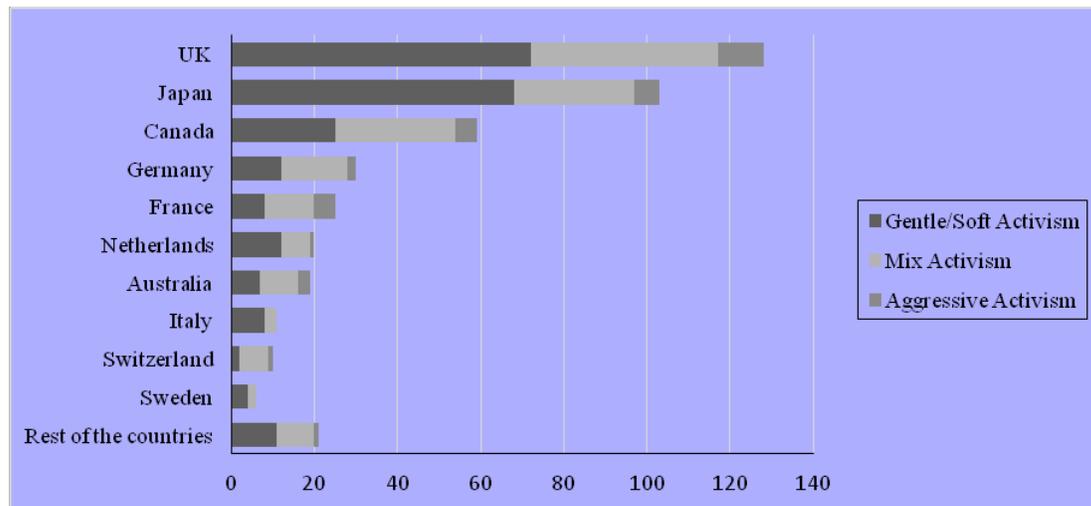
The nature of the oversight activities and the outcomes of hedge fund activism also vary considerably across different countries. I have elsewhere presented evidence suggesting that hedge fund activism encompasses a wide range of strategies, from letter writing and meetings with the incumbents (gentle activism), to public pressure or shareholder proposals (soft activism), and to the drama of a change of management or the commencement of litigation or a takeover bid from the activist (aggressive activism).⁵⁹ In order to examine the aggression of each activist hedge fund campaign in my sample, I split the activist campaigns

⁵⁹ Katelouzou 'Myths and Realities of Hedge Fund Activism' supra note 52 at 484-88.

into three groups: those which include only gentle and soft tactics; those which include only aggressive tactics; and those which include both gentle/soft and aggressive tactics (mix campaigns).⁶⁰

Figure 2 reveals that activist hedge funds are, in the main, not aggressive, with solely aggressive campaigns being in the minority across all the sample countries. However, there are some cross-country differences in terms of coverage and emphasis. For instance, the overwhelming majority of activist hedge fund campaigns in Japan (74.76%) involve only gentle and/or soft tactics (eg behind the scenes negotiations or public dialogue), while the corresponding percentages are 72.7% and 53.1% in Italy and the United Kingdom, respectively. On the other hand, more aggressive tactics (eg board-control seeking campaigns, litigation and takeovers) are adopted in Switzerland, France and Germany, where the overwhelming majority of activist campaigns involve at least one aggressive tactic (80%, 68% and 63.3%, respectively).

Fig. 2 Aggression of Hedge Fund Activism by Target Country



The success rate of hedge fund activism differs across countries as well. Empirical evidence from the United States reports an impressive success rate of activist hedge funds' campaigns.⁶¹ Outside the United States, however, activist funds have had only a mixed success in their activist efforts. Hand-collected data on the hedge funds' stated objectives and the activist campaign's outcomes allows me to retrieve useful findings on the success rate of

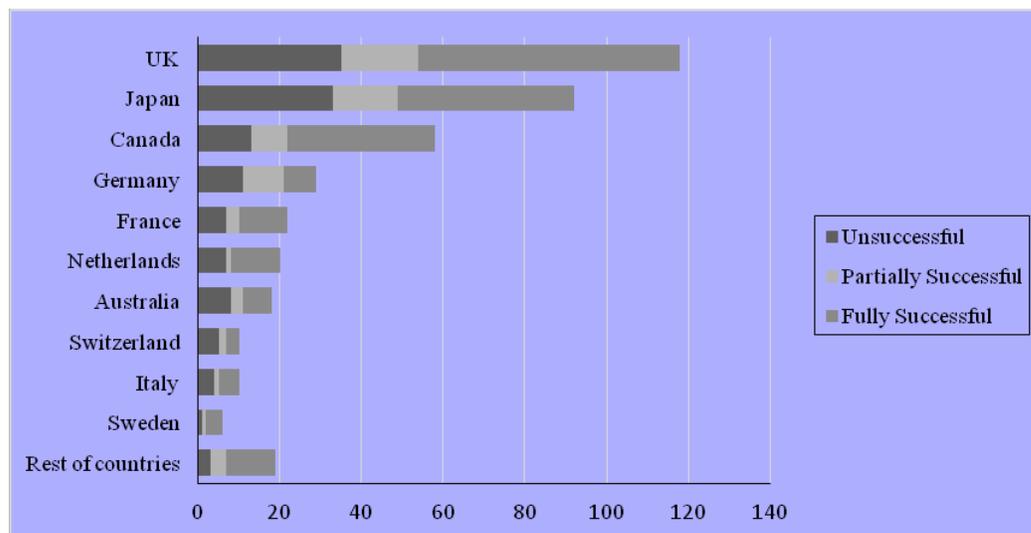
⁶⁰ Katelouzou 'Worldwide Hedge Fund Activism' supra note 18 at 63.

⁶¹ See, eg. Brav et al 'Hedge Fund Activism' supra note 57 at 1744 (reporting that activist hedge funds achieve success in nearly two-thirds of the cases in their sample).

activist hedge funds' campaigns in my sample.⁶² Success is defined as including any target compromise with reference to each of the hedge funds' stated objectives. Each activist campaign is assigned one outcome. An activist campaign is classified as 'fully successful' if the activist hedge fund advances all its stated objectives.⁶³ It is classified as 'partially successful' if the target makes a compromise that partially meets the activist's stated objectives.⁶⁴ Finally, an activist campaign is classified as a failure if the target company resists bringing about any of the hedge funds' stated objectives. Because of this definition, cases where the activist hedge fund fails to advance its objectives, but manages to exit with profit, are classified as failures (one observation).

Figure 3 breaks down the activist hedge fund campaigns by success rate. Activist hedge funds attain full success, which I define as achieving all their stated objectives, in 52% of the activist campaigns in my sample. But if the partially successful campaigns are also taken into account, the success rate raises to 68.4%. Looking at the success rate by country, activist hedge funds' campaigns are more successful in Sweden, Canada, and the UK with 66.7%, 62.1%, and 55% (fully) success rate respectively, while activist hedge funds are less successful in Germany (27.6%), Switzerland (30%) and Japan (46.7%).

Figure 3: Hedge Fund Activism by Success Rate and Country



Understanding why the incidence, nature and outcomes of hedge fund activism vary across different countries revolves around the question of what determines why activist hedge

⁶² Katelouzou 'Hedge Fund Activism' supra note 18 at 121-22.

⁶³ Two cases of settlement are also included in this category.

⁶⁴ I also assign as partial success two cases where the hedge fund withdraws its campaign.

funds choose to invest in a particular company and, more generally, in a particular country. The target selection is surely determined by firm-specific factors. Existing empirical literature suggests that activist hedge funds tend to select undervalued and underperforming firms (yet not unprofitable), with dispersed (institutional) ownership, relatively small size, high cash flows and excessive diversification.⁶⁵ However, although activist hedge funds invest in specific companies rather than whole markets, the effort required to start looking at companies in any particular country implies that there will need to be at least some general country-level attraction before activist hedge funds begin their research. Law, and in particular shareholder protection, has a role to play in this regard.

Shareholder Rights and Hedge Fund Activism

The literature concerning the relationship between law and economic activity is vast and spans a range of disciplines from law to economics and from sociology to political science.⁶⁶ We have seen above that the ‘law and finance’ literature gave support to the claim that the level of shareholder protection matters for the financial development of a country. Empirical literature in finance also suggests that strong shareholder rights discipline managerial behaviour and influence a number of firm policies. For instance, stronger shareholder protection reduces insiders’ incentives to expropriate, and thus, it mitigates the agency conflicts.⁶⁷ Here, the focus is on the legal foundations of a particular corporate governance phenomenon, namely hedge fund activism.

To unpack the legal factors which may be expected to influence hedge fund activism, an activist hedge fund campaign can be described as a sequence of four stages. An activist hedge fund manager first selects a target company that presents high-value opportunities for engagement (entry stage) and accumulates a nontrivial stake (trading stage). It then communicates its demands to the targeted management and employs its activist strategy (disciplining stage). Finally, it exits (exit stage). While the entry and trading stages will be also present to other forms of value investing, the readiness to take a hands-on role and lobby for changes (disciplining stage) is the crucial additional dimension to hedge fund activism. The legal and extra-legal factors likely to influence the four stages of an activist hedge fund

⁶⁵ See eg Brav et al ‘Hedge Fund Activism’ supra note 57 at 1749-55.

⁶⁶ See eg Milhaupt, CJ and Pistor, K (2008) *Law and Capitalism: What Corporate Law Crises Reveal about Legal Systems and Economic Development around the World* University of Chicago Press.

⁶⁷ Shleifer, A and Wolfenzon, D (2002) ‘Investor Protection and Equity Markets’ (66) *Journal of Accounting and Economics* 3.

campaign have been examined elsewhere.⁶⁸ The details will not be rehearsed here. Nevertheless, a distilled synopsis of the legal factors conducive to hedge fund activism provides a helpful departure point for understanding the relationship between shareholder rights and hedge fund activism.

At the entry stage of an activist campaign, finding the right target is a function of the firm-specific information that is publicly available. If disclosure is mandated, it is easier for the activist hedge funds to identify their targets.⁶⁹ Although mandatory disclosure operates independently of activist hedge fund campaigns, financial reporting via annual accounts and periodic reports and information on the corporate governance arrangements of the candidate target company (eg disclosure of executive compensation and self-dealing) improves the activist hedge fund's effectiveness in selecting its target, and makes monitoring less costly.

At the trading stage of an activist campaign, harsh ownership disclosure duties on significant holdings may have a chilling effect on hedge fund activism. Strict disclosure duties (either with having lower thresholds or with catching non-voting economic positions and activist intentions) limit expected returns for prospective activists.⁷⁰ For instance, given the costs associated with building up a sizeable stake and the benefits associated with accumulating a stake anonymously, activist hedge funds have an incentive to hide their presence and to remain below the triggering ownership threshold at the beginning of their activist campaign.

Finally, we have seen above that at the disciplining stage activist hedge funds employ an array of tactics, most of the times in an interrelated manner. The intensity and effectiveness of the activist hedge funds' actions at the disciplining stage depend decisively on the degree of pressure they can bring to bear as shareholders. Activist hedge funds often use the general meeting to air their demands, initiating resolutions or vetoing fundamental decisions (eg the sale of the company).⁷¹ At other times they take remedial action in the form of board dismissals and election of new directors, who look on the activist demands more favourably.⁷² In challenging the incumbents' decisions, the right to appoint and remove the board directors is the most persuasive tool. Indeed, it has been suggested that the mere threat that the activist hedge fund will replace the board is enough to make the incumbents comply

⁶⁸ Katelouzou 'Worldwide Hedge Fund Activism' supra note 18.

⁶⁹ Ibid., 18.

⁷⁰ Ibid., 20.

⁷¹ Ibid., 30-34.

⁷² Ibid., 34-37.

with the activist's demands.⁷³ In addition to governance and removal rights, an alternative route for an activist hedge fund seeking to lessen the directors' resistance to its campaign is to threaten, or actually pursue, litigation on behalf of the company against the alleged wrongdoing director(s) (derivative claims), or recourse to litigation in the context of M&As, with the aim of blocking a deal or improving its terms.⁷⁴

However, not all activist strategies recourse to the power which corporate law has vested to shareholders. For instance, almost 60% of the activist strategies in the sample studied involve behind-the-scenes negotiations, approaches to the target management through letters and meetings, and the use of media to publicly articulate activist demands.⁷⁵ All these strategies embrace unilateral decision-making on the part of target management, and they do not involve any use of formal shareholder rights on the part of the insurgents. However, a shareholder-friendly regulatory framework is likely to have an indirect impact on behind-the-scenes or public, but informal, negotiations with the incumbents. The implicit or explicit threat which an activist hedge fund can pose to a target company is more powerful in shareholder-friendly environments, and, in turn, an activist hedge fund's negotiating position at the behind-the-scenes or media-driven negotiations is stronger. The degree of legal protection of shareholder rights is, in turn, critical for the rise in hedge fund activism.

In sum, given the impact of a shareholder-friendly regime on the disciplining stage of an activist campaign, it is expected that activist hedge funds should primarily target companies incorporated in countries with stronger shareholder protection regimes. This hypothesis predicts that activist hedge fund campaigns (Y) occur more frequently in countries with stronger shareholder protection (X), other things equal. This is a quantitatively based argument applicable to large, conceptual infinite numbers of countries. The analysis of information from a large number of countries almost inevitably requires quantitative methods and a traditional non-quantitative comparatist would be able to examine only a handful of countries. As Vagts put it: 'orthodox comparative lawyers would have shrunk back from such an ambitious endeavour [ie from studying a large number of countries] and if they had attempted, it would have wound up with a tome of 2000 pages and 6000 footnotes filled with caveats and qualifications that would have rendered it unreadable'.⁷⁶ Also, in the absence of quantitative tools to measure similarities and differences, any conclusion on whether shareholder protection rules are more or less similar suffers from a high degree of

⁷³ Bebchuk, LA (2005) 'The Case For Increasing Shareholder Power' (118) *Harvard Law Review* 833 at 851.

⁷⁴ Katelouzou 'Worldwide Hedge Fund Activism' supra note 18 at 37-39.

⁷⁵ Katelouzou 'Myths and Realities of Hedge Fund Activism' supra note 52 at 485-86.

⁷⁶ Vagts 'Comparative Company Law: The New Wave' supra note 27 at 604.

subjectivity.⁷⁷ Leximetric coding techniques can therefore provide a systematic way of studying differences and similarities across a large number of legal systems and if combined with econometric techniques can enrich our understanding of how law and economic activity affect each other. Before I turn to the empirical findings, the next section briefly describes the data.

Description of Data

In order to address the research hypothesis, which is the focus here, data on activist hedge fund campaigns, financial and ownership information on listed companies and comparative shareholder protection law were collected from various sources.

Dependent Variables

To test the research hypothesis, my basic empirical approach is to model hedge fund activism as the dependent variable in a regression framework. I, therefore, create a variable (*ACTIVISM*), which counts how often activist hedge funds target companies incorporated in the countries studied. For example, for the UK this variable has a score of 128, as this is the number of activist hedge fund campaigns targeting UK companies, while for Germany the score is 30 (see also Figure 1 above).

In a joint project, Na Dai and I pursued a more advanced econometric analysis of the legal foundations of international hedge fund activism.⁷⁸ To test whether the incidence of hedge fund activism is associated with stronger shareholder protection, we constructed a set of industry/size matched firms. The total number of matched firms is 5,231. To test whether the probability of being targeted by activist hedge funds is conditional on shareholder protection we constructed a binary variable (*TARGET*) that equals 1 if the company is a target of hedge fund activism, and 0 otherwise.

Shareholder Protection Rules

⁷⁷ See eg Mattei, U (1997) 'Three Patterns of Law: Taxonomy and Change in the World's Legal Systems' (45) *American Journal of Comparative Law* 5 at 41 (suggesting that '[i]n the absence of quantitative tools to measure analogies and differences among legal systems, whether common law or civil law are more or less similar depends only on the terms of comparison and on the problems that one is facing').

⁷⁸ Katelouzou, D and Da, N (2014) 'Shareholder Empowerment and Hedge Fund Activism' (Unpublished working paper).

The key causal (independent) variable of interest is the degree of shareholder protection of the country in which the target company is incorporated. To account how well different legal systems protect certain rights I draw on the 30-country CBR-SPI.⁷⁹ For the regressions with *ACTIVISM* as the dependent variable, I create a measurement of shareholder protection across my sample countries calculating the mean (average) of the ten CBR-SPI variables between 2000 and 2010.⁸⁰ For the regressions with *TARGET* as the dependent variable, the sum of each country's CBR-SPI component's value at the year preceding each activist hedge fund campaign is used. In this way, the longitudinal nature of the CBR-SPI is availed to investigate changes over time while simultaneously performing cross sectional analysis between countries. However, the CBR-SPI does not code shareholder protection rules in Australia. To measure shareholder protection in Australia I therefore rely on a study by Helen Anderson, Michelle Welsh and Ian Ramsay who quantify shareholder protection in Australia between 1970 and 2010 using the same variable definition and coding methodology as the CBR-SPI.⁸¹

Control Variables

To isolate the relationship between hedge fund activism (dependent variable) and the shareholder protection rules (independent variable), I control for several additional legal and non-legal factors (both at country- and firm-level) that previous literature suggests are relevant to hedge fund activism and, more generally, to shareholder activism.⁸² For instance, I take into account the degree of law enforcement, the stringency of the mandatory disclosure regime, and the legal origin of the country in which the target company is incorporated. At the firm-level, I control for several financial characteristics, such as the operational performance and the size of the target company.

Main Empirical Findings

Together, the collected data on activist hedge fund campaigns, targeted companies and shareholder protection law measures provide a basis on which one can test the hypothesis that

⁷⁹ Katelouzou and Siems, *supra* note 41.

⁸⁰ See, further, Katelouzou 'Worldwide Hedge Fund Activism' *supra* note 18.

⁸¹ Anderson, H; Welsh, M and Ramsay, I (2011) 'Shareholder and Creditor Protection Indices Australia 1970-2010' Melbourne Legal Studies Research Paper No 641, available at: <<http://ssrn.com/abstract=2163809>>, accessed 7 June 2014.

⁸² See, further, Katelouzou 'Hedge Fund Activism' *supra* note 18 at 163-65.

shareholder protection accounts for hedge fund activism. Inferential statistics (through the use of regression analysis) can tell us whether any observed differences in the hedge fund activism emergence between weak and strong shareholder protection regimes can be accounted for purely by chance, or whether meaningful differences exist. In the latter case, we would say that the difference is statistically significant. Multivariate regression analysis can also provide an estimate of the relative impact of multiple factors on hedge fund activism. In addition, by holding all these additional (control) factors constant we can assess the relationship of interest, ie the relationship between hedge fund activism and shareholder protection rules.

To ascertain whether shareholder protection rules account for the incidence of hedge fund activism, several empirical tests were performed. Statistical details are beyond the scope of this article. Here, for the purposes of illustration, it is sufficient to present a summary of the main findings.

The dependent variable *ACTIVISM* is a count variable, which measures how often activist hedge funds target companies incorporated in 25 different countries between 2000 and 2010. *ACTIVISM* takes values from 0 to 128, but the distribution is not bell-shaped, because of the large number of countries with zero activist hedge fund campaigns and the fact that activist hedge fund campaigns located in companies located in the UK and Japan dominate the sample.⁸³ To make allowances for the skewed (to the right) distribution I estimate, among others, negative binomial regression models. This type of non-linear regression is necessary when the dependent variable exhibits excess variation, or overdispersion, ie the variance (a measure of the variability in a data set) is larger than the mean.⁸⁴ The regression results show that legal support for shareholders' rights is related with a higher number of activist campaigns even after controlling for the impact of alternative factors.⁸⁵ This suggests that the willingness of activist hedge funds to entry to a company and engage in disciplining activities is contingent upon the extent to which they are protected from shareholder value destroying actions from the management.

The dependent variable *TARGET* is a binary variable. A binary dependent variable has two values, typically coded as 0 for a negative outcome (ie the event is not aggressive or it is unsuccessful) and 1 as a positive outcome (ie the event is aggressive or it is successful). To assess the extent to which shareholder protection help to account for the probability of a

⁸³ Katelouzou 'Hedge Fund Activism' supra note 18 at 174-75.

⁸⁴ Ibid., 175-76.

⁸⁵ Ibid., 177-78.

company becoming an activist target, a probit regression is employed. Probit regression allows a researcher to explore the way in which each explanatory variable (predictor) affects the probability of an event occurring. After controlling for several additional firm- and country-level factors, the regression results show that the coefficient on the shareholder protection variable is as expected, namely positive and statistically significant at the 5% level.⁸⁶ A graphic display of the main results is presented in Figure 4.

Fig. 4 The effect of shareholder protection on activist targeting

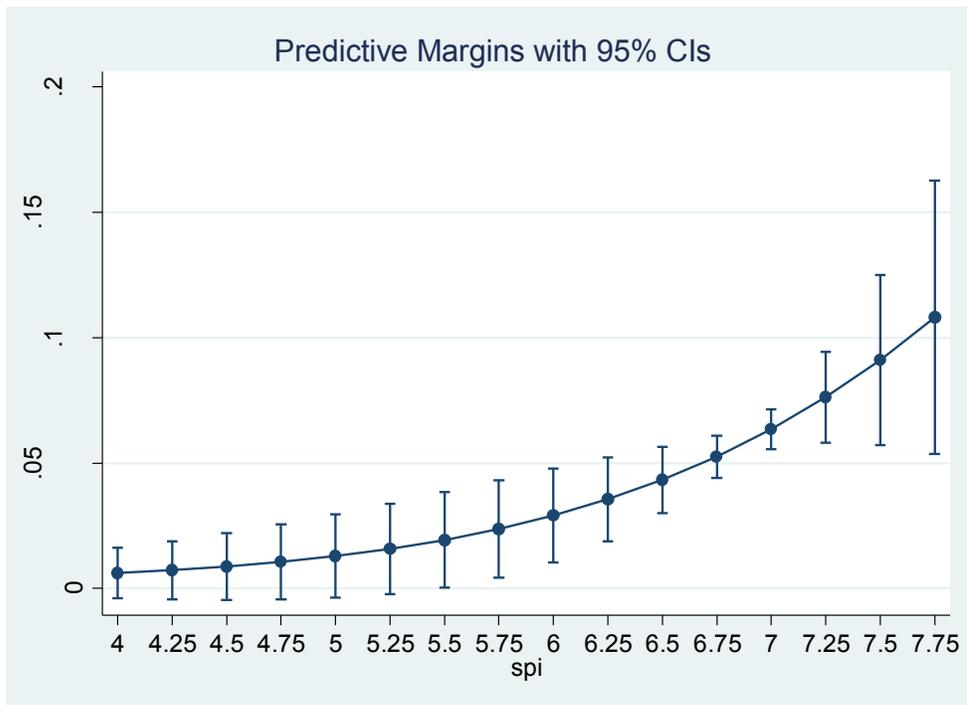


Figure 4 presents the predicted probabilities and the assessment of errors (confidence intervals) of a company becoming a target of an activist hedge fund campaign across different shareholder protection regimes (spi). Lending support to the hypothesis, the figure shows that predicted probabilities increase when shareholder protection becomes stronger. The predicted probability of being targeted by an activist hedge fund for a company domiciled in a country with shareholder protection of 4.16 (ie the aggregate score of the ten CBR-SPI variables for Germany in 2000) is 0.6% (non-statistically significant), while the predicted probability of becoming an activist target in countries with shareholder protection of 7.75 (eg Australia) is almost 11% and statistically significant at the 1% level.

⁸⁶ Complete results are on file with the author.

4 LIMITATIONS, POTENTIALS AND FUTURE DIRECTIONS

The previous section shows how leximetric coding techniques combined with econometric analysis can be used to shed light on the impact of shareholder protection rules on international hedge fund activism. The combination of numerical comparative law with econometric techniques based on a representative sample of cases makes it possible to test the relationship between legal rules and corporate governance or economic outcomes in a way which controls for the possibility of interactions between the different variables of interest. There are, however, limitations to the use of numerical comparative law and econometric analysis of the impact of legal rules on corporate governance phenomena, even though the sophistication of this methodology has advanced significantly in the recent years.

First, an index such as the CBR-SPI cannot, by definition, include every shareholder-oriented legal rule. The selection and the coding of the variables inevitably involves some subjective element which may result in some aspects of the legal system being overlooked.⁸⁷ Moreover, even though the starting point of the CBR-SPI has been the test of functionality, the items that are included in the index are confined to what can be measured, and may fail to capture the complexity of the legal systems and the ‘law in practice’. Coding as the method for comparative law across a large number of countries is necessarily reductionist. A deeper worry about the consequences of the reductionist nature of numerical comparative law is that not only the indices, but the normative framework itself, are also inherently partial.⁸⁸

Another concern relates to the use of the sum of the ten CBR-SPI variables as an aggregate measure for shareholder protection. The use of aggregate scores raises the question of whether all the variables have an equal importance in the emergence of hedge fund activism across different countries. It might be the case that different variables may have varying relative importance or the same variable may play a different functional role in different countries. Consider, for example, how two of the CBR-SPI variables, ie Variable 6 and Variable 9, are relevant to hedge fund activism.

Variable 6 reflects how easily directors can be dismissed. The highest score of 1 is given where directors may be dismissed by shareholders at will, while the lowest score (0) is

⁸⁷ Siems, M (2011) ‘Measuring the Inmeasurable’ in Faure, M and Smits, J (eds) (2011) *Does Law Matter? On Law and Economics Growth* Intersentia 115.

⁸⁸ Hadfield, G (2009) ‘The Strategy of Methodology: The Virtues of Being Reductionist for Comparative Law’ (59) *University of Toronto Law Journal* 223 at 231.

given where directors' dismissal may only be effected for cause or for an important reason.⁸⁹ We have seen before that if management is not receptive to any of the hedge funds' recommendations, the insurgents can take a more aggressive approach and threaten or actually wage a campaign in order to dismiss what they think as underperforming directors. Variable 6 is, in turn, fundamentally important for hedge fund activism.

On the other hand, Variable 9 relates to the mandatory bid rule. Mandatory bid is included in the original CBR-SPI because it gives shareholders an opportunity to exit the company at a premium.⁹⁰ Greater protection is hence accorded by a lower threshold acquisition level. For activist hedge funds an exit at a premium is an optimal outcome, since a mandatory bid rule ensures that activist hedge funds as shareholders of the potential target company have an opportunity to exit on a change of control.⁹¹

However, the mandatory bid rule also runs the risk of reducing the number of takeovers which occur. Economic literature shows that the mandatory-bid requirement decreases the likelihood of value-creating restructuring as it makes control transactions more expensive and in turn discourages bidders from making a bid in the first place.⁹² Correspondingly, activist hedge funds would prefer more, not fewer, bids, meaning they should oppose a mandatory bid rule.⁹³ Another reason why activist hedge funds should oppose a mandatory bid rule might be that hedge funds may refrain from launching a takeover bid themselves if they are obliged to make an offer to purchase the remaining shares of a company on passing a certain threshold. The financial burden seems to be significant if we take into account the fact that, because the target's company share price increases upon announcement of the major shareholding, the minimum price for the mandatory bid also increases.⁹⁴ However, this latter point is at best subsidiary, given that activist hedge funds rarely come close to a 30% stake.⁹⁵ In addition, existing literature in the United States, where the would-be-acquirers can bid as

⁸⁹ Siems, M; Lele, P; Iglesias-Rodriguez, P; Mollica, V; Klauberg, T; Heidenhain, S; Cankar, N; Hamilton, J; Schnyder, G and Akman, P (2009) 'CBR Extended Shareholder Protection Index', available at: <<http://www.cbr.cam.ac.uk/pdf/Shareholder%20protection%20index%20references%2025%20countries.pdf>>, 31.

⁹⁰ Siems 'Leximetric II' supra note 41 at 119-20.

⁹¹ On the rationales behind the mandatory bid rule, see, Davies, P and Hopt, K (2009) 'Control Transactions' in Kraakman, R et al. (eds) *The Anatomy of Corporate Law: A Comparative and Functional Approach* Oxford University Press 225, at 252-53.

⁹² Buckart, M and Panunzi, F (2004) 'Mandatory Bids, Squeeze-out, Sell-out and the Dynamics of the Tender Offer Process' in Ferranini, G et al. (eds) *Modern Company and Takeover Law in Europe* Oxford University Press 737.

⁹³ For more on the logic involved, see Cheffins, BR (1997) *Company Law: Theory, Structure and Operation* Oxford University Press at 270-72.

⁹⁴ For example, in the UK the minimum price for the mandatory bid, is set by the Takeover Code Rule 9 to 'a price at least equal to the highest price paid in the period preceding the acquisition'.

⁹⁵ See eg Katelouzou 'Myths and Realities of Hedge Fund Activism' supra note 52.

small or as large of a percentage of the target company's stake as they wish,⁹⁶ shows that even in the absence of a mandatory bid rule activist hedge funds rarely attempt to take over the target company.⁹⁷

In turn, Variable 9 is likely to have either none or only a minor impact on hedge fund activism. Future research should, therefore, re-consider the selection of the variables for inclusion in an index that will measure the ease with which an activist hedge fund can entry in a company, accumulate a sizeable stake, engage in oversight activities and exit. Future research should also address the question of what weight each variable should contribute to the final legal index.

Another inherent limitation of quantitative corporate law studies is that the principal methodological tool—linear regression—only estimates the effect of the independent variables on the dependent variable, and tells us nothing about the direction of causation.⁹⁸ There is nothing in the data themselves that can be used to determine if x (shareholder protection) is a cause of y (hedge fund activism). A regression analysis can only be used to predict what would happen to y if x is set at a particular value. Therefore, I might have found that the incidence of activist hedge fund campaigns and probability of being targeted through activism are greater in countries with stronger shareholder protection, but this does not mean that we necessarily have good evidence of the direction of causal inference. Both variables might be influenced by a common cause (and therefore correlated with one another), but might not cause each other. This limitation is also associated with the theorisation of the law-hedge fund activism relationship. A central methodological tenet of this study is the claim that corporate law operates, at least in part, as an 'exogenous' or independent force influencing the emergence of hedge fund activism. However, it is possible that legal rules not only shape, but also are shaped, by their economic context.⁹⁹ In the relationship between shareholder protection rules and hedge fund activism, however, the direction of causation appears to run mainly one way, from shareholder rights to hedge fund activism. The shareholder protection rules in my sample period (2000-10) changed very slowly and only a very small proportion of the rules I focus on were enacted after hedge fund activism moved

⁹⁶ With the exception of the states of Maine and Pennsylvania, which have mandatory bid rules. See Hertig, G; Kraakman, R and Rock, E (2009) 'Issuers and Investor Protection' in Kraakman, R et al. (eds) *The Anatomy of Corporate Law: A Comparative and Functional Approach* Oxford University Press 275. See also Armour, J and Skeel, DA, Jr (2007) 'Who Writes the Rules for Hostile Takeovers, and Why - The Peculiar Divergence of US and UK Takeover Regulation?' (95) *Georgetown Law Review* 1727 (examining the differences in takeover regulation between the UK and the US).

⁹⁷ See eg Brav et al. 'Hedge Fund Activism' supra note 57 at 1743.

⁹⁸ Berk, RA (2004) *Regression Analysis: A Constructive Critique* Sage Publications at 101.

⁹⁹ See eg Armour et al. 'Shareholder Protection and Stock Market Development' supra note 11.

into high gear. It appears, therefore, that the rise in activist hedge fund campaigns is being shaped by shareholder protection rules rather than the other way round and, therefore, endogeneity does not seem to be a problem.

Despite these limitations, the use of numerical comparative law and econometric techniques to corporate governance research allows us to gain new insights. Leximetric techniques provide comparative data on legal systems in a novel form and facilitate statistical analysis. They also reduce complexity and increase the utility of comparative law in practice.¹⁰⁰ Numerical comparative law enables the use of financial econometrics to address familiar questions of corporate governance such as the impact of legal institutions on various corporate actors, among which activist hedge funds.

However, hedge fund activism involves complex causing processes where the data is scarce and difficult to assess. The description of hedge fund activism as a sequence of four stages has provided a roadmap for conceptualising this complex causing process and has identified several extra-legal and legal determinants of hedge fund activism. To understand cause and effect in the case of hedge fund activism in the non-American setting, it is necessary to consider the market conditions that have facilitated the emergence of hedge fund activism in the early 2000s, the characteristics of the companies targeted by activist hedge funds, and the underlying shareholder protection and mandatory disclosure rules that offer encouragement to activist hedge funds. All these contextual factors are *necessary* considerations and might have an influence over hedge fund activism emergence, but they are not *sufficient* ones. Other legal rules, such as the laws governing collective investment vehicles, or legal rights conferred on shareholders by a company's own constitution (articles of association or equivalent) might account for how well different legal systems encourage hedge fund activism. In addition, hedge fund activism, like every corporate activity, is shaped beyond the law, by institutionalised practices of varying degrees of formality.¹⁰¹ Political forces or cultural dimensions might have shaped the development of hedge fund activism across my sample countries over the past decade.¹⁰²

Where causal relations are complex in the sense just described, statistical techniques need to be sensible combined with other theoretical and empirical insights. Qualitative methods, such as carrying out interview-based fieldwork or case studies, are of particular

¹⁰⁰ See also Siems 'Numerical Comparative Law' supra note 15 at 534.

¹⁰¹ Buchanan, J; Chai, DH and Deakin, S (2012) *Hedge Fund Activism in Japan: The Limits of Shareholder Primacy* Cambridge University Press at 20 (hereafter, 'Hedge Fund Activism in Japan').

¹⁰² See eg *ibid.*, 133-36 (explaining how *sokaiya* demonstrate the vulnerability of the Japanese corporate governance system to activist hedge funds).

value where there are multiple contextual factors in play.¹⁰³ In their study of hedge fund activism in Japan, John Buchanan, Dominic Chai and Simon Deakin adopt a multi-methods approach which seeks to integrate data from quantitative and qualitative methods.¹⁰⁴ Their study highlights the limits of quantitative analysis in the study of multivariate, complex and open corporate governance phenomena and shows how qualitative research, based on interview-based fieldwork, provides access to information that is not available from quantitative analysis.

Future research on the relationship between legal institutions and hedge fund activism should combine quantitative analysis with qualitative and narrative methods across a larger number of countries if understanding of the interplay between the legal environment and activist hedge funds is to be advanced.

5 CONCLUSION

This article has shown how leximetric coding techniques, which express variations in legal rules across time or across countries (numerical comparative law) using numerical measures, can be combined with econometric analysis to investigate important research questions across a large number of countries. The question of interest in this study is to explore the impact of shareholder protection rules on hedge fund activism across 25 countries and over a ten-year period. Using the heuristic model of an activist hedge fund campaign as a sequence of four stages, a hypothesis has been developed stating that strong shareholder protection rules account for hedge fund activism. This hypothesis relies on a view of shareholder-orientated corporate law which sees legal rules as capable of shaping the behaviour of corporate governance actors in an exogenous way and also, potentially, in other ways. To account how well different legal systems protect certain shareholder rights I draw on leximetric coding techniques and I employ econometric techniques to isolate the impact of shareholder protection rules on hedge fund activism. The regression results lend support to the posited effect of shareholder protection rules on the emergence of hedge fund activism.

For comparatists, this article shows how leximetric coding techniques and statistical analysis can help to analyse the effects of regulatory regimes on corporate governance. The

¹⁰³ Buchanan, Chai and Deakin 'Empirical Analysis of Legal Institutions and Institutional Change' supra note 50.

¹⁰⁴ Buchanan, Chai and Deakin 'Hedge Fund Activism in Japan' supra note 101 at 13.

question about the effect of legal rules on corporate governance or other social or economic phenomena is of interest to comparatists and socio-legal researchers,¹⁰⁵ and it has also been empirically explored by the ‘law and finance’ literature. This empirically informed assessment of the effects of legal rules is not limited to corporate governance and related fields, but can also be of value in other types of comparative research. Numerical comparative law can be used to identify legal transplants, to evaluate the importance of legal families, to test whether various legal rules (not only in company law) matter, and to make comparisons as a basis for making policy recommendations.¹⁰⁶

Yet the possibility of creating numerical measures of legal rules is highly controversial. For instance, it has been said that the quantification of comparative law and the proliferation of the ‘law and finance’ literature has led to a certain amount of ‘existential angst’ in the discipline of comparative law.¹⁰⁷

Leximetric coding techniques, however, build upon comparative law principles, and quantitative methods are not a substitute for traditional, non-quantitative methods but an extension of traditional comparative law scholarship. This study argues for an increased use of interdisciplinarity in comparative legal studies by combining statistics and economics with legal analysis. Of course, this does not mean that all comparatists should engage in quantitative analysis. The choice of the method depends on the type of the question a comparatist attempts to answer. But addressing questions relating to a large number of countries almost inevitably requires the use of quantitative methods.¹⁰⁸ Also, even non-quantitative comparatists may be able to make good use of some of these datasets or use the empirical findings for their own scholarship. Contemporary comparative law, therefore, needs to explore the utility of diligent leximetric coding and econometric techniques for analysing comparative law questions across a large number of countries and testing theories of the effects of law. At the same time, however, we should not disregard the limits in interpreting empirical results.

¹⁰⁵ For an overview of social-legal comparative law, see Siems ‘Comparative Law’ supra note 36 at 119-145.

¹⁰⁶ See *ibid.*, 186.

¹⁰⁷ Curran, VG (2009) ‘Comparative Law and the Legal Origins Thesis: “[N]on scholae sed vitae discimus”’ (57) *American Journal of Comparative Law* 863.

¹⁰⁸ Spamann, H (2009) ‘Large-Sample, Quantitative Research Designs for Comparative Law’ (57) *American Journal of Comparative Law* 797.