Corporate Governance and Firm Innovation- Are Conventional Corporate Governance Standards a Hindrance?

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Introduction

Technological and scientific innovation is widely recognised as a major determinant of productivity growth and economic competitiveness. For companies that are capable of harnessing it, innovation is the magical ingredient that underpins new products and business models. An enterprise that is able to innovate in a commercially-viable manner is well-placed to outperform its competitors and create value for investors, customers and other stakeholders. Innovation is therefore important to securing the long-term success of many companies.

The innovative capacity, development and harnessing of innovation in companies is shaped not only by market incentives but also by internal firm governance structures.⁴

Successful companies that innovate well are often associated with the following characteristics:

- (a) An entrepreneurial spirit in corporate leadership and the workforce, and an enterprising culture in the firm generally. This also means a willingness to explore and take risks, and to dare to venture into the 'weird' and different;⁵
- (b) A dedication of investment into research and development, in terms of generally advancing scientific research but also in specific innovations;⁶
- (c) A long-termist approach to developing and growing the company.⁷

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¹ Nathan Rosenberg, 'Innovation and Economic Growth' (OECD, 2004) at https://www.oecd.org/cfe/tourism/34267902.pdf.

² Federico Munari and Maurizio Sobrero, "Corporate Governance and Innovation" in *Corporate Governance, Market Structure and Innovation* (Cheltenham: Edward Elgar 2003); Gary Pisano, "You Need an Innovation Strategy" Harvard Business Review (June 2015).

³ Greg Statell, 'Innovation Is The Only True Way To Create Value', *Forbes.com* (29 Nov 2015) at https://www.forbes.com/sites/gregsatell/2015/11/29/innovation-is-the-only-true-way-to-create-value/#7186a77718e3; Kathryn M. Kelm, V. K. Narayanan and George E. Pinches, 'Shareholder Value Creation during R&D Innovation and Commercialization Stages' (1995) 38 Academy of Management Review 770 on how the different stages of innovation development and commercialisation create shareholder value.

⁴ Fillipp Belloc, 'Corporate Governance and Innovation: A survey' (2012) 26 Journal of Economic Surveys 835.

⁵ Charles Yablon, 'Innovation, the State and Private Enterprise: A Corporate Lawyer's Perspective' (2016) 40 Delaware Journal of Corporate Law 1017.

⁶ Marianna Makri, Peter J. Lane and Luis R. Gomez-Mejia, 'CEO Incentives, Innovation, and Performance in Technology-Intensive Firms: A Reconciliation of Outcome and Behavior-Based Incentive Schemes' (2006) 27 Strategic Management Journal 1057.

⁷ Nicolette C. Prugsamatz, 'In(Ex)ternal Corporate Governance and Innovation: A Review of the Empirical Evidence' (2015) at http://ssrn.com/abstract=2664401 points out in this detailed review that much of innovation is carried out with a view to long-term success.

The above qualities suggest an intimate connection between corporate governance and innovation in companies. The empirical literature that we survey has sought to determine which corporate governance factors affect a company's investment or spend in research and development, and the level of innovation output (such as in the number patents filed). We find that empirically accepted *firm-based* factors that promote innovation may however be incompatible with well accepted corporate governance standards that are upheld in major securities markets such as in the US and UK.

Questions can be raised as to whether certain conventions in corporate governance standards promote or indeed hinder innovation in companies. Corporate governance standards have become increasingly convergent around a shareholder-centred model of accountability around the world, partly due to the theoretical appeal of the 'agency-based' perspective of economic relations within the firm and the practical financial interests of shareholders that champion this model of corporate governance. The globally dominant corporate governance standards are referred to in this article as based on a 'shareholder-centred agency-based' model. This article explores where the tensions lie between these globally dominant corporate governance standards and the firm-based factors that promote innovation. We flesh out the implications for these standards and the continuing trend of standardisation.

Section A discusses the nature of 'shareholder-centred agency based' corporate governance standards and their rise in international capital markets. This Section argues that although the key characteristics of such standards are not necessarily antagonistic to promoting innovation, the underlying theoretical model has little to contribute to promoting innovation. This is because it focuses excessively on incentive-based individual economic behaviour, neglecting the enterprise context of the firm. This underlying theoretical model does not cater adequately for advancing the needs of coordination within the enterprise and the pursuit of collective enterprise success, ultimately affecting the usefulness of corporate governance standards based on such a model.

⁸ Joseph McCahery and Erik P Vermeulen, 'Corporate Governance and Innovation Venture Capital, Joint Ventures, and Family Businesses' (ECGI Working Paper 2006) at http://ssrn.com/abstract=894785; Houman B Shadab, 'Innovation and Corporate Governance: The Impact Of Sarbanes-Oxley' (2008) 10 University of Pennsylvania Journal of Business and Employment Law 955; Stefano Bianchini, Jackie Krafft, Francisco Quartraro and Jacques Ravix, 'Corporate Governance, Innovation and Firm Age: Insights and New Evidence' (2015) at http://www.gredeg.cnrs.fr/working-papers.html.

⁹ Klaus Hopt, 'Comparative Corporate Governance: The State of the Art and International Regulation' (2011) 59 American Journal of Comparative Law 74. This point will be explored in Section C.

¹⁰ Discussed in Section B. The rationale for the theoretical appeal is explained in Allen Kaufman and Ernie Englander, 'A Team Production Model of Corporate Governance' (2005) 19 Academy of Management Executive 9.

¹¹ The rise of institutional investors and asset managers as major global shareholders is a key factor for influencing corporate governance standards maintained by many securities markets. Global securities markets have therefore been subject to competitive pressures in enhancing these standards and moving towards convergence in various degrees, see eg Mary O'Sullivan, 'The Political Economy of Comparative Corporate Governance' (2003) 10 Review of International Political Economy 23 and Section C.

¹² William Lazonick and Mary O'Sullivan, 'Corporate Governance, Innovation and Economic Performance in the EU' (CGEP Report 2004).

Section B argues that there is significant consistency between a resource-based theoretical perspective of the firm and empirical research findings on the corporate governance factors relevant for promoting innovation. We discuss the nature and key characteristics of this theoretical perspective and how it practically supports the promotion of firm innovation. We highlight the tensions between the needs of firm innovation and the application of 'shareholder-centred agency-based' corporate governance standards.

Section C proceeds to suggest how 'shareholder-centred agency based' corporate governance standards may be adjusted to reflect the needs for promoting firm innovation. We argue that the resource-based theoretical perspective pursues the same ultimate objective as 'shareholder-centred agency-based' corporate governance model, ie corporate success, but more accurately and holistically takes into account of the productive activities and enterprise of the firm. We advocate that corporate governance standards should embody both individualistic and collective economic behaviour in order to better cater for the needs of promoting innovation. We make some suggestions for key adjustments in particular with relation to Boards. We are of the view that Boards, shareholders and stakeholders can all be viewed differently from a resource-based perspective, giving us a new basis for the adjustment of prevailing corporate governance standards. Boards should ensure that companies have adequate access to a range of resources for innovation and also have a role to play in monitoring that such resources are harnessed and well-utilised. We critically examine the template in the UK Corporate Governance Code and make suggestions on adjusting provisions on Board structures, responsibilities and composition, so that Boards can better serve the purposes of firm innovation. Finally, this Section also reflects on the implications of our arguments for the observed trend of global standardisation of 'shareholder-centred agency-based' corporate governance standards. We are of the view that excessive prescriptions in corporate governance standards are probably sub-optimal for promoting innovation, but we propose a moderated form of standardisation that caters to the needs of global securities markets. Section D concludes.

A. Conventional Corporate Governance Standards and Firm Innovation

Corporate governance models have been developed in theory since Berle and Means investigated in the 1930s into the implications of the 'modern corporation' for the allocation of powers within a corporate structure. As Moore and Petrin point out, although a number of theoretical models of corporate governance have been debated upon over the years in academia, across inter-disciplinary fields in economics, law and organisation, the model of corporate governance that has influenced most profoundly the modern development of corporate law and governance standards (which may be in Listing Rules of securities markets or 'soft law', i.e. in non-binding codes of best practices) is the 'orthodox' contractarian model of corporate governance.

¹³ Adolf A Berle and Gardiner C Means, *The Modern Corporation and Private Property* (NY: Macmillan, 1932).

¹⁴ Marc T Moore and Martin Petrin, *Corporate Governance: Law, Regulation and Theory* (London: Palgrave Macmillan 2017) at ch2.

The 'orthodox' contractarian model of corporate governance highlights corporate governance as essentially economic and contractual relations. In 1937, Coase's seminal work "The Nature of the Firm" provided the foundation upon which the contractarian conception of the corporation became a dominant intellectual paradigm. The firm is characterised as a nexus of transactions that are 'internalised' because of the transaction cost-efficiencies of such arrangements compared to market-based contracting.

The contractarian approach sees the firm as a nexus of contracts entered into by volition, and as a structure that internalises a web of these arrangements. The individuality of these economic transactions remain paramount in relation to allocation of powers and rights and this model does not treat the firm as a collective institution of its own salience. Hence, the role of corporate law, boosted by the rise of the law and economics movement, deals with making such contractual relations efficacious. Staunch contractual theorists in corporate law support the role of corporate law as an enabling or facilitative framework so that contracting parties may decide how their relations may be governed. Brudney and Bebchuk have pointed out that it is a myth that constituents in a corporation actively engage in contractual bilateralism to determine the substantive governance of their relations. However theorists argue that the contractarian model can be supported on the basis of 'hypothetical bargains'.

Hypothetical bargains¹⁹ are premised upon models of economic behaviour on the part of the constituents of the firm. From the 1970s, theoretical milestones have been reached in establishing such models of economic behaviour. Alchian and Demsetz²⁰ analyse transactional behaviour within the firm in terms of 'complete' and 'incomplete' contracts according to the efficiency needs of each constituent and conclude that shareholders are 'special' as they make open-ended contracts to invest their capital into a firm but bear the ultimate risk of the firm's insolvency. Shareholders should thus be residual claimants of the firm's assets in insolvency. Jensen and Meckling²¹ further frame the residual claimant's position in the firm as subject to an 'agency' paradigm where managerial control of corporate assets could be adverse to residual claimants' interests, in cases where managers and shareholders are different persons.

¹⁵ (1937) 4(16) Economica 386–405.

¹⁶ William A Klein, "The Modern Business Organization: Bargaining Under Constraints" (1982) 91 Yale Law Journal 1521; Fred McChesney, "Contractarianism Without Contracts? Yet Another Critique Of Eisenberg" (1990) 90 Columbia Law Rev 1332; Manuel A Utset, "Towards a Bargaining Theory of the Firm" (1995) 80 Cornell Law Review 540.

¹⁷ Victor Brudney, 'Corporate Governance, Agency Costs, and the Rhetoric of Contract' (1985) 85 Columbia Law Review 1403.

¹⁸ Lucian Ayre Bebchuk, "The Debate On Contractual Freedom In Corporate Law" (1989) 89 Columbia Law Rev 1395; "Limiting Contractual Freedom In Corporate Law: The Desirable Constraints On Charter Amendments" (1989) 102 Harvard Law Rev 1820.

¹⁹ David Charny, "Hypothetical Bargains: The Normative Structure of Contract Interpretation" (1991) 89 Michigan Law Review 1815.

²⁰ Armen A Alchian and Harold Demsetz, "Production, Information Costs and Economic Organisation" (1972) 62 The American Economic Rev 777.

²¹ M Jensen and W Meckling, "Theory of the Firm: Managerial Behavior, Agency Costs and Ownership Structure" (1976) 3 Journal of Financial Economics 305.

Hence, a key hypothetical bargain between shareholders and managers as championed in Easterbrook and Fischel's influential thesis is that the role of corporate law is to provide a default set of rules²² that protects shareholders' residual claimant interests by having their interests form the objective for corporations. Shareholder primacy frames the corporate objective of the company, which as Easterbrook and Fischel argue, is 'shareholder wealth maximisation' as the default and commonly accepted norm that most investors would subscribe to.²³ This objective provides a single-minded focus for managers and is an efficient axis for economic organisation.²⁴ In this light, managers are disciplined, especially in publicly traded corporations, by the share price of the company that embodies information signals as to financial performance, a proxy indicator for shareholders to determine if managers are indeed effectively maximising the wealth of the corporation.

The agency paradigm also frames corporate governance needs as revolving around controlling managerial 'agency' problems. This is realised through the allocation of powers in company law in favour of shareholders as well as the financial discipline of shareholder primacy upon directors. In the UK for example, shareholders are (a) the subjects of directors' accountability,²⁵ (b) the organ to exercise key powers in certain aspects of decision-making in the company,²⁶ and (c) the constituents whose capital return interests should form the basis for corporate management.²⁷

²² Frank H Easterbrook and Daniel R Fischel, "The Corporate Contract" in *The Economic Structure of Corporate Law* (Cambridge Mass: Harvard University Press 1991) at 1ff.

²³ Above.

²⁴ Also see , Oliver Williamson, "Corporate Governance" (1984) 93 Yale Law Journal 1197.

²⁵ S172, Companies Act 2006 explicitly provides that directors' duties are to promote the long-term success of the company for the benefit of the members as a whole. This has come to be coined as 'enlightened shareholder value', a long-termist and more inclusive perspective for corporate performance, but revolving around shareholders. But most commentators are of the view that the focus on 'shareholder value' will unlikely introduce any revolutionary move in directors' conduct towards stakeholders, see for eg Paul Davies, 'Enlightened Shareholder Value and the New Responsibilities of Directors' (2005) at http://law.unimelb.edu.au/_data/assets/pdf_file/0014/1710014/94-Enlightened Shareholder Value and the New Responsibilities of Directors1.pdf; Richard Williams, 'Enlightened Shareholder Value in UK Company Law' (2012) 35 UNSW Law Journal 360; Andrew Keay, "Section 172(1) of the Companies Act 2006: an Interpretation and Assessment" (2007) 28 Company Lawyer 106: Flaine

^{&#}x27;Enlightened Shareholder Value in UK Company Law' (2012) 35 UNSW Law Journal 360; Andrew Keay, "Section 172(1) of the Companies Act 2006: an Interpretation and Assessment" (2007) 28 Company Lawyer 106; Elaine Lynch, 'Section 172: A Ground-Breaking Reform of Director's Duties, or the Emperor's New Clothes?' (2012) Company Lawyer 196.

²⁶ Such key aspects include the appointment and removal of directors, see s168, Companies Act 2006; the power to approve of certain transactions such as loans and guarantees to directors or substantial transactions to directors, long-term incentive arrangements and payments for loss of office, see s188ff; the power to ratify directors' breaches of duties or defaults, s239; the power to direct management in a specific matter by special resolution, Art 4, The Companies (Model Articles) Regulations 2008; and a power to approve (or otherwise) directors' remuneration packages on a three-yearly basis, s439A. Shareholders also have extensive powers to determine capital restructuring, such as approval of capital reduction or redemption of shares, s641ff, 659; and are the key organ to determine if a takeover of the company is approved, see John Armour, Simon Deakin and Suzanne J. Konzelmann, 'Shareholder Primacy and the Trajectory of UK Corporate Governance' (2003) at http://www.cbr.cam.ac.uk/fileadmin/user_upload/centre-for-business-research/downloads/working-papers/wp266.pdf.

²⁷ Shareholders are treated by economists as 'residual claimants', meaning that their supply of capital to the company is under an open-ended arrangement which renders them liable to be ultimate losers if the company should fail. The 'residual claimant' status of the shareholders therefore requires protection so that managers do not abuse the privilege of being in control of the use and application of capital. See Armen A Alchian and

The shareholder-centred agency-based model of corporate governance is most closely reflected in Anglo-American corporate law and corporate governance standards maintained by US and UK securities markets. Although Bruner argues that the extent of shareholder powers enjoyed in the UK is more extensive than in the US,²⁸ the US corporate sector accepts the legitimacy of 'shareholder value creation' as a key corporate objective,²⁹ and accountability lies to shareholders for the exercise of managerial powers.³⁰ Indeed, shareholders' formal powers³¹ and their activism is on the rise in the US, ³² with the growth of institutional shareholder influence in global capital markets.

The shareholder-centred agency-based model of corporate governance has found international admiration as by the end of the 1990s,³³ the success of the American economy draws attention to the successes of its corporate governance model. Further, studying incidents of corporate failure highlights that poor corporate governance can be often a significant factor in firm failures.³⁴ It may be too simplistic to say that adhering to the conventionally accepted standards of corporate governance in accordance with the shareholder-centred agency-based model is a panacea for boosting corporate performance,³⁵ but empirical research finds consistently that returns on investment may be

Harold Demsetz, "Production, Information Costs and Economic Organisation" (1972) 62 The American Economic Rev 777, Oliver Williamson, "Corporate Governance" (1984) 93 Yale Law Journal 1197.

manuscript), available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1108497; Charles Weir, David

²⁸ Christopher M Bruner, *Corporate Governance in the Common Law World* (Cambridge: Cambridge University Press, 2013).

²⁹ Leo E Strine Jnr, 'Corporate Power is Corporate Purpose I: Evidence from My Hometown' (2017) at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2906875; Leo Strine Jnr, 'Our Continuing Struggle with the Idea that For-Profit Corporations Seek Profit' (2012) 47 Wake Forest Law Review 135.

³⁰ Above, and reflected in the investor-focused accountability regimes for corporations such as in securities regulation.

³¹ Thomas and Tricker's empirical research on shareholder voting in the US concludes that shareholders' powers are more nuanced than thought, and significant influence can be exerted in proxy contests, see Randall S Thomas and Patrick Tricker, 'Shareholder Voting in Proxy Contests for Corporate Control, Uncontested Director Elections and Management Proposals: A Review of the Empirical Literature' (2017) 70 Oklahoma Law Review forthcoming.

³² From the model of 'fiduciary capitalism' and 'universal owners' championed in relation to pension funds, see James P Hawley and Andrew T Williams, *The Rise of Fiduciary Capitalism: How Institutional Investors Can Make Corporate America More Democratic* (University of Pennsylvania Press 2000); Robert Monks, *The New Global Investors* (Capstone Publishing 2001), to modern forms of shareholder activism carried out by hedge funds see John Armour and Brian Cheffins, 'The Rise and Fall (?) of Shareholder Activism by Hedge Funds' (2012) 14 Journal of Alternative Investments 17; Dionysia Katelouzou, 'Myths and Realities of Hedge Fund Activism: Some Empirical Evidence' (2013) 7 Virginia Law and Business Review 459.

³³ Henry Hansmann and Reiner Kraakman, 'The End of History for Corporate Law' (2000) 89 Georgetown Law Journal 439.

³⁴ Abe De Jong, Douglas V De Jong, Peter Roosenboom and Gerard Mertens, "Royal Ahold: A Failure of Corporate Governance" (Feb 2005) at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=663504; Robert Rosen, "Risk Management and Corporate Governance: The Case of Enron" (2003) 35 University of Connecticut Law Review 1157.

³⁵ Lucian Bebchuk, Alma Cohen and Allen Ferrell, "What Matters in Corporate Governance?" (2009) 22 Review of Financial Studies 783; Lawrence D. Brown & Marcus L. Caylor, "Corporate Governance and Firm Performance" (2004) (unpublished manuscript), available at http://ssrn.com/abstract=586423; Sanjai Bhagat and Brian Bolton, "Corporate Governance and Firm Performance" (2006) at http://w4.stern.nyu.edu/emplibrary/Corporate Governance-Performance.pdf; N. K. Chidambaran et al., Corporate Governance and Firm Performance: Evidence from Large Governance Changes (2008) (unpublished

higher where companies implement such standards.³⁶ Hence, corporate governance standards have become increasingly integral to global securities regulation as they are perceived in capital markets to be important contributors to corporate success and performance. Capital markets promote these standards through increasing prescription or legalisation for their listed companies' adoption, in order to promote the appeal of their markets to investors.³⁷

Shareholder-centred agency-based corporate governance standards appeal to institutional investors, who have become the most important type of investor in global corporate equity. Solobal assets under management total \$64 trillion according to a survey carried out by Price Waterhouse Coopers and are forecast to swell to \$102 trillion by 2020. As institutions are also minority investors in corporate equity, they rely on the existence of good corporate governance standards adopted by firms as being essential to protecting their investment interests. With swelling global assets under management, the investment management sector is increasingly powerful in influencing the terms upon which investments are made in securities markets. Anglo-American institutions are a significant institutional sector and they continue to demand robustly implemented corporate governance standards in listed issuers, many of which reflect the shareholder-centred

Laing and David J McKnight, 'An Empirical Analysis of the Impact of Corporate Governance Mechanisms on the Performance of UK Firms' (2001) at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=286440; Rob Bauer, Nadja Guenster and Roger Otten, 'Empirical Evidence on Corporate Governance in Europe. The Effect on Stock Returns, Firm Value and Performance' (2003) at

https://papers.ssrn.com/sol3/papers.cfm?abstract_id=444543; Andreas Bermig and Bernd Frick, 'Board Size, Board Composition, and Firm Performance: Empirical Evidence from Germany' (2010) at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1623103.

³⁶ David F Larcker, Scott A Richardson and Irem Tuna, "How Important is Corporate Governance" (Wharton Working Paper, May 2005); Lawrence D Brown and Marcus L Caylor, 'Corporate Governance and Firm Performance' (2004) at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=586423; Anama Shaukat and Carol Padgett, 'The UK Code of Corporate Governance: Link Between Compliance and Firm Performance' (2006) at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=934313; R Madhumathi and M Ranganatham, 'Earnings Quality, Corporate Governance and Firm Performance' (2011) at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1867869.

³⁷ Tobias H. Tröger, 'Corporate Governance in a Viable Market for Secondary Listings' (2007) 10 University of Pennsylvania Journal of Business and Employment Law 89 argues that securities regulation has come to brand the US listed markets.

³⁸ See ch1, Roger M Barker and Iris H-Y Chiu, *Investment Management and Corporate Governance* (Cheltenham: Edward Elgar 2017).

³⁹ PwC, Asset Management 2020: A Brave New World (2014) at http://www.pwc.com/us/am2020.

⁴⁰ J P Hawley and A T Williams, 'Shifting Ground: Emerging Global Corporate-Governance Standards and the Rise of Fiduciary Capitalism' (2005) 37 Environment and Planning 1995; Stuart L Gillan and Laura T Starks, 'Institutional Investors, Corporate Ownership and Corporate Governance: Global Perspectives' (2003) 22 Journal of Applied Finance 134.

⁴¹ There is much empirical evidence on the increased valuation of companies on securities markets driven by investor preferences where good corporate governance is instituted. See Fabio Bertoni, Michele Meoli, and Silvio Vismara, 'Board Independence, Ownership Structure and the Valuation of IPOs in Continental Europe' (2014) 22 Corporate Governance 116; Lawrence D Brown and Marcus L Caylor, 'Corporate Governance and Firm Valuation' (2009) 25 Journal of Accounting and Public Policy 409 (arguing that there are only a few cherished corporate governance notions that make a difference eg independent directors); Kee H Chung and Hao Zhang, 'Corporate Governance and Institutional Ownership' (2011) 46 Journal of Financial and Quantitative Analysis 247; Armand Picou and Michael J Rubach, 'Does Good Governance Matter to

agency-based model of corporate governance, focusing on subjecting directors to adequate monitoring and accountability, and empowering shareholders to exercise powers in engagement and scrutiny.

We observe the internationalisation of corporate governance standards that meet the needs of regulatory competition in globally competitive securities markets. ⁴² Broad patterns of international convergence ⁴³can be found in corporate governance standards that address the agency problem of overly-powerful management in widely-held companies. ⁴⁴ In particular, independent Board representation has become a key building block in corporate governance standards. Empirical literature has measured convergence in corporate governance standards internationally and records that notable convergence has taken place in standards that are particularly valued for minority shareholder protection. ⁴⁵ However, regional fragmentations in corporate governance standards show that the dialectics of contention between issuers, investors and policy-makers will continue to sustain some of the unique differences in corporate governance standards upheld in each securities market. ⁴⁷

The dominance of the agency-based perspective of corporate governance in the leading global securities markets such as New York, London and Hong Kong has shaped both the content of corporate governance standards as well as international standardisation to some extent. Even countries that have adopted stakeholder models of corporate governance such

Institutional Investors? Evidence from the Enactment of Corporate Governance Guidelines' (2006) 65 Journal of Business Ethics 55.

⁴² Earlier literature on convergence driven by institutions are more broad-brush and optimistic, see Michael Useem, *Investor Capitalism* (NY: Basic Books 1999). See the strand of literature on nuanced forms of and drivers for convergence in corporate governance standards, T Yoshikawa and AA Rasheed, 'Convergence of Corporate Governance: Critical Review and Future Directions,' (2009) 17 Corporate Governance: An International Review 388–404; Ilir Haxhi and Ruth V. Aguilera, 'Are Codes Fostering Convergence in Corporate Governance? An Institutional Perspective' (2011) at

http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2026352, also ch11, T Yoshikawa and AA Rasheed (eds), Convergence in Corporate Governance: Promise and Prospects (Abingdon: Palgrave Macmillan 2012). Gerald Davis and Christopher Marquis, 'The Globalization of Stock Markets and Convergence in Corporate Governance' (2003) at http://www.economyandsociety.org/wp-content/uploads/2013/08/wp7.pdf; Weil Gotshal and Manges, Comparative Study Of Corporate Governance Codes Relevant to the European Union and Its Member States (2002) at http://ec.europa.eu/internal_market/company/docs/corpgov/corp-gov-codes-rpt-part1_en.pdf (pointing out significant convergence in Codes although not in company law).

⁴³ CITE HOPT, MARY O'SULLIVAN

⁴⁴ Such as the institutionalisation of independent Board representation and the independent audit committee of the Board, see Paul Davies and Klaus J Hopt, 'Boards in Europe: Accountability and Convergence' (2013) 61 American Journal of Comparative Law 301.

⁴⁵ Mathias Siems, 'Convergence in Corporate Governance: A Leximetric Approach' (2010) 35 Journal of Corporation Law 729; Carsten Gerner-Beuerle, 'Determinants of Corporate Governance Codes' (2014) at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2346673.

⁴⁶ Carsten Gerner-Beuerle, 'Determinants of Corporate Governance Codes' (2014) at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2346673.

⁴⁷ Detailed studies can be found in T Yoshikawa and AA Rasheed (eds), *Convergence in Corporate Governance: Promise and Prospects* (Abingdon: Palgrave Macmillan 2012). YOSHIKAWA PIECE

as Japan are driving greater shareholder empowerment⁴⁸ in a bid to reinvigorate the corporate sector and weed out the malaises of executive entrenchment.⁴⁹

Although the shareholder-centred agency-based model of corporate governance has influenced global standards and standardisation, it is fundamentally a model based on individualistic economic behaviour within the firm, premised upon opportunistic assumptions of human behaviour. It does not take into account whether economic behaviour adjusts in relation to the context of the 'collective enterprise' that is being pursued by constituents of the firm. The behaviour of individual economic constituents that are brought together for the common purpose of the enterprise of the firm can be shaped by the sociological dimension of their interactions and the sense of collective purpose in the common enterprise. The shareholder-centred agency-based model of corporate governance has little to say about how economic constituents engage in and organise productive activities for the purpose of enterprise, hence its relation to firm innovation is remote and skeletal at best.

Shareholder-centred agency-based corporate governance standards may hinder firm innovation⁵¹ in the following ways:

- (a) As the key tenet of such a corporate governance model is based on 'monitoring' ie Boards to monitor CEOs and executives, and shareholders to monitor Boards so that controlling constituents of corporate assets do not use them for selfish purposes, the 'monitoring' ethos creates a culture of critical scrutiny and risk aversion, which can be dis-incentivising for fostering an entrepreneurial spirit or culture.⁵²
- (b) A 'monitoring' model of corporate governance focuses on financial performance monitoring as a key means to monitor. This is because financial performance provides a proxy for general well-being, and monitoring at 'arms length' requires reliance upon such proxy indicators. This approach is taken by independent directors 'monitoring' the rest of the Board without necessary inside knowledge⁵³ and by shareholders 'monitoring' the Board. An emphasis on financial performance monitoring creates incentives towards minimising expenditure, and investment in research and development could be regarded as costly without bringing in sure and quick returns.⁵⁴

⁴⁸ See the Japanese Stewardship Code which is intended to encourage greater shareholder engagement with their investee companies, http://www.fsa.go.jp/en/refer/councils/stewardship/20140407/01.pdf.

⁴⁹ Bruce E Aronson, 'The Olympus Scandal and Corporate Governance Reform: Can Japan Find a Middle Ground between the Board Monitoring Model and Management Model?' (2012) 30 UCLA Pacific Basin Law Journal 93.

⁵⁰ See Kathleen R Conner and CK Prahalad, 'A Resource-based Theory of the Firm: Knowledge versus Opportunism' (1996) 5 Organisation Science 477.

⁵¹ Position taken in Roger M Barker, 'Re-Designing Corporate Governance to Promote Innovation' (GUBERNA paper 2016).

⁵² Charles Yablon, 'Innovation, the State and Private Enterprise: A Corporate Lawyer's Perspective' (2016) 40 Delaware Journal of Corporate Law 1017.

⁵³ Barry Baysinger and Robert E Hoskisson, 'The Composition of Boards of Directors and Strategic Control: Effects on Corporate Strategy' (1990) 15 The Academy of Management Review 72.

⁵⁴ B Holstrom, 'Agency Costs and Innovation' (1989) 12 Journal of Economic Behaviour and Organisation 305.

(c) A 'monitoring' model of corporate governance that focuses on financial performance monitoring is likely to tend towards managerial short-termism as financial performance is scrutinised quarterly by shareholders.⁵⁵ Short-termism has been highlighted to be a malaise for the corporate sector as it may damage the sector's long-term success and its socially beneficial role in wealth creation for savers and investors.⁵⁶ Shareholders focused upon short-termist 'monitoring' may indeed hinder corporations from engaging in long-termist expenditures and development that may not generate returns in the short-term.

It may however be argued that the shareholder-centred agency-based model of corporate governance is relevant to innovation as a 'monitoring' model is able to check the exercise of corporate powers over assets.⁵⁷ The aim is to ensure that corporate assets are used towards securing financial performance for the company, which protects and enhances shareholders' wealth. Where promoting innovation is relevant to the financial success of the company, a 'monitoring' model could in theory prevent corporate powers from being exercised contrary to the purposes of wealth creation. In this way, the shareholder-centred agency-based corporate governance model can contribute to promoting innovation in relation to providing the boundaries for legitimate exercises of managerial power.

The corporate finance perspective of shareholder primacy- that access to stock market finance can be improved if firms demonstrate optimal shareholder-friendly standards⁵⁸- can be relevant for promoting innovation. As access to stock market finance can improve a company's capacity to invest in innovation, adhering to agency-based corporate governance standards that promote shareholder rights and protection is not in conflict with a pro-innovation strategy. ⁵⁹ This seems to be especially important where stock markets are not already highly developed ⁶⁰, especially in emerging countries. ⁶¹

⁵⁵ Caitlin Helms, Mark Fox and Robert Kenagy, 'Corporate Short-Termism: Causes and Remedies' (2012) 23 International and Comparative Company Law Review 45; Emeka Duruigbo, 'Tackling Shareholder Short-Termism and Managerial Myopia' (2011-12) 100 Kentucky Law Journal 531.

⁵⁶ Corporate Values Strategy Group, *Overcoming Short-termism: A Call for a More Responsible Approach to Investment and Business Management* (New York: Aspen Institute Business and Society Programs, 2009), BIS, *The Kay Review of UK Equity Markets and Long-Term Decision Making* (Final Report, 23 July 2012)http://www.aspeninstitute.org/publications/overcoming-short-termism-call-more-responsible-approach-investment-business-management.

⁵⁷ Matthew O'Connor and Matthew Rafferty, 'Corporate Governance and Innovation' (2012) 47 The Journal of Financial and Quantitative Analysis 397.

⁵⁸ Soo H Lee and Taeyoung Yoo, 'Competing Rationales for Corporate Governance in France: Institutional Complementarities between Financial Markets and Innovation Systems' (2008) 16 Corporate Governance: An International Review 63.

⁵⁹ David Hillier, Julio Pindado, Valdoceu de Queiroz and Chabela de la Torre, 'The Impact of Country-Level Corporate Governance on Research and Development' (2011) 42 Journal of International Business Studies 76; R La Porta, F Lopez-de-Silanes, A Shleifer and R Vishny, 'Law and Finance' (1998) 106 Journal of Political Economy 1113.

⁶⁰ Stéphane Lhuillery, 'The Impact of Corporate Governance Practices on R&D Intensities of Firms: An Econometric Study on French Largest Companies' (2009) at http:://ssrn.com/abstract=1426089.
⁶¹ Hui He, Hanya Li and Jinfan Zhang, 'Does Stock Market Boost Firm Innovation? Evidence from Chinese Firms' (2016) at http://ssrn.com/abstract=2759516; Domagog Račić, Vladimir Cvijanović and Zoran Aralica, 'The Effects of the Corporate Governance System on Innovation Activities in Croatia' (2008) 39 Revija za sociologiju 101.

Lazonick and Sullivan⁶² critically opine that stock market finance is not a major source of finance for innovation. Nevertheless, the ready access to a stock market can incentivise support for innovation in other ways. For example, venture capitalists may be more willing to invest as they eventually look to stock markets for exit, and employee stock options can be used to motivate a greater sense of employee commitment and productivity.

Next, a key tenet of the 'monitoring' model of corporate governance is the institution of independent directors on the Board. These are regarded as well-placed to ensure that executive directors are not self-serving in their pursuits. However, they could be regarded as adverse to innovation as their monitoring emphasis could distract the Board from focusing on innovative and strategic directions. However, different commentators have also found in empirical research that independent directors are pro-innovation from both the agency-based perspective of corporate governance and the resource-based perspective discussed below. Kor finds that a significant level of Board independence, such as the separation of CEO from the Chairman of the Board, is positively correlated with higher levels of R&D investments. Independence on the Board can promote strategic views towards the long-term good of the company and mitigates the self-serving tendencies on the Board. However, a couple of commentators are sceptical that independent directors are a factor for promoting innovation, as independent directors do not have sufficient proximity to the business to be strategically useful in promoting innovation.

Finally, empirical research has not found an adverse impact between institutional shareholdings and the level or commitment to innovation in companies. Indeed quite the converse, institutional shareholding seems positively related to promoting innovation. The relevance of investigating into the influence of institutional shareholding is that such shareholders are often regarded to be short-termist.⁶⁷ Their regular legal duties of accountability to their beneficiaries in terms of financial performance in their investments make them susceptible to short-termism. Brossard et al⁶⁸ examine the relationship between

⁶² William Lazonick and Mary O'Sullivan, 'Corporate Governance, Innovation and Economic Performance in the EU' (CGEP Report 2004).

⁶³ T Yoshikawa and AA Rasheed, 'Convergence of Corporate Governance: Critical Review and Future Directions,' (2009) 17 Corporate Governance: An International Review 388–404; Ilir Haxhi and Ruth V. Aguilera, 'Are Codes Fostering Convergence in Corporate Governance? An Institutional Perspective' (2011) at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2026352, Gerald Davis and Christopher Marquis, 'The Globalization of Stock Markets and Convergence in Corporate Governance' (2003) at http://www.economyandsociety.org/wp-content/uploads/2013/08/wp7.pdf.

⁶⁴ Erik Vermeulen, Mark Fenwick and Masato Hisatake, 'Intelligent Cars Inc. - Governance Principles to Build a Disruptive Company' (2016) at http://ssrn.com/abstract=2823006.

⁶⁵ Yasemin Y Kor, 'Direct and Interaction Effects of Top Management Team and Board Compositions on R&D Investment Strategy' (2006) 27 Strategic Management Journal 1081.

⁶⁶ Krishnamurti Chandrasekar and Haiyun Ren, 'Review of Relationship between Corporate Governance and R&D Input' (2012) 2 Journal of Applied Financial Research; Barry D. Baysinger, Rita D. Kosnik and Thomas A. Turk, 'Effects of Board and Ownership Structure on Corporate R&D Strategy' (1991) 34 Academy of Management Journal 205.

⁶⁷ Paul Frentrop, 'Short Termism of Institutional Investors and the Double Agency Problem' (2012) at http://ssrn.com/abstract=2249872.

⁶⁸ Olivier Brossard, Stephanie Lavigne, Mustafa Erdem Sakinc, 'Ownership Structures and R&D in Europe: The Good Institutional Investors, the Bad and Ugly Impatient Shareholders' (2013) at https://halshs.archivesouvertes.fr/halshs-00843984.

ownership structures in a sample of 234 large European companies and their innovative activity in terms of R&D spending. They found that institutional investors have a positive impact on companies' R&D spending. However different institutional investors seem to create different influences, with impatient investors being antithetical to promoting innovation. Pension funds are regarded as long-termist and positive influencers, while mutual funds are short-termist and impatient. Aghion et al⁶⁹ have also come to a similar conclusion. They assembled a dataset of 800 major US firms over the 1990s containing timevarying information on patent citations, ownership, R&D, and governance. They found a robust positive association between innovation and institutional owner ship. Their finding provide support for the validity of the agency-based perspective of corporate governance in relation to promoting innovation in companies- that the disciplinary effect of institutional share ownership, despite its short-termist tendencies, motivates the 'lazy manager' to engage in innovation in order to improve corporate performance.

The empirical literature discussed above do not point to the complete incompatibility of shareholder-centred agency-based corporate governance standards with corporate innovation. However, it may be argued that the connection between protecting shareholders and promoting innovation is still remote. The limitations of the model do not take into account of holistic perspectives regarding the organisation of collective productive activity by constituents of the firm, and may reinforce certain incentives that undercut such productive activity. In the next Section, we discuss findings from empirical research in terms of what firm-based factors matter for firm innovation. These findings show that taking a resource-based theory of corporate governance is much more aligned with promoting innovation, but such a theory has implications for how corporate governance should be conceived of as a model, and consequently, the corporate governance standards that should be regarded as optimal. These implications create tension with the shareholder-centred agency-based model of corporate governance, which we explore.

B. Firm-based Factors Supporting Innovation and the Resource-based Theory of Corporate Governance

Empirical literature has provided a variety of insights into the firm-based factors that support innovation. Our survey of such literature shows that a resource-based theory of the firm most closely explains the salience of these factors.

The resource-based theory of the firm was first developed by commentators in business management literature who seek to shed light on why certain firms maintain a sustained competitive advantage over other firms and are therefore successful over the long term. Commentators are of the view that firms sustain a competitive advantage because they are able to exploit resources that are rare, valuable and not easily imitable or substitutable.⁷⁰

⁶⁹ Philippe Aghion, John Van Reenen and Luigi Zingales, 'Innovation and Institutional Ownership' (2013) 103 American Economic Review 277.

⁷⁰ Jay B Barney, 'Firm Resources and Sustained Competitive Advantage' in *Economics Meets Sociology in Strategic Management* (Advances in Strategic Management, Volume 17, Emerald Group Publishing Limited, 2000) at pp203-227 as an example of other similarly themed works by Barney, also Birger Wernerfelt, 'A

These resources may range from internal resources within a firm or external resources associated with the firm that the firm is able to exploit successfully. Such resources may be 'sticky' to the firm due to the firm's unique connections with them, or their lack of mobility or homogeneity in the market.⁷¹ The resource-based theory of the firm has been developed intensely since the 1990s, offering an alternative account of the firm other than contractarianism,⁷² and can now be considered a relatively mature theory⁷³ of interdisciplinary import, connecting with business management, organisation science, economic theories of the firm and corporate governance and law.⁷⁴

Innovation is promoted in a firm when resources with innovative potential are perceived and developed.⁷⁵ The corporate governance of a firm is intimately connected with the perception and development of such innovative potential, as our survey from empirical research suggests. Corporate governance is the system in a firm that organises the exercise of managerial leadership and power, the structuration of functions and responsibilities within the firm and the mobilisation of human capital for corporate objectives.⁷⁶ Corporate governance affects the level and quality of firm innovation in three ways. One is related to the firm's access to resources at all levels in the firm; the second relates to incentives (affecting all levels of individuals, especially senior management) to pursue innovation and the third relates to structures for governing innovation in firms.

Boards as Resource

Our survey shows that access to resources in terms of human, social, stakeholder and financial capital is important in facilitating innovation in firms. Firms that promote such access are likely to harness more innovative potential than firms that are hamstrung in pursuing such access. The shareholder-centred agency-based corporate governance standards could be a basis for hindering some forms of 'access', and creates tensions between a firm's need to promote innovation and to comply with prevailing standards in order to demonstrate an appealing system of corporate governance to securities markets.

 $\frac{ilibrary.org/docserver/download/2615021e.pdf?expires=1511800123\&id=id\&accname=guest\&checksum=C3754AE47D70883CB900294DD6F05F3F.$

Resource-Based View of the Firm' (1984) 5 Strategic Management Journal 171. The resource-based view is often traced back to ET Penrose, *The Theory of the Growth of the Firm* (New York: Wiley, 1958).

⁷¹ Margaret A Peteraf, 'The Cornerstones of Competitive Advantage: A Resource-Based View' (1993) 14 Strategic Management 179.

⁷² Kathleen R Conner and CK Prahalad, 'A Resource-based Theory of the Firm: Knowledge versus Opportunism' (1996) 5 Organisation Science 477.

⁷³ Jay Barney, David J Ketchen Jnr and Mike Wright, 'The Future of Resource-based Theory: Revitalisation or Decline?' (2011) 37 Journal of Management 1299.

⁷⁴ Above and in Francisco Jos´E Acedo, Carmen Barroso and Jose Luis Galan, 'The Resource-based Theory: Dissemination and Main Trends' (2006) 27 Strategic Management 621.

⁷⁵ Reginald A Litz, 'A Resource-based-view of the Socially Responsible Firm: Stakeholder Interdependence, Ethical Awareness, and Issue Responsiveness as Strategic Assets' (1996) 15 Journal of Business Ethics 1355.

⁷⁶ The OECD Corporate Governance Principles defines corporate governance as 'a set of relationships between a company's management, its board, its shareholders and other stakeholders. Corporate governance also provides the structure through which the objectives of the company are set, and the means of attaining those objectives and monitoring performance are determined.', see p9, OECD *Principles of Corporate Governance* (2015) at http://www.oecd-

First, Board members are viewed as key resources for the firm's success. From a resource-based perspective, Board members bring expertise and skills that the company can draw upon for innovative strategies. Empirical research has shown that 'inside' directors, i.e. executive directors who have knowledge of the company's business position and needs, are more important for corporate innovation than outside or independent directors.⁷⁷ This may create tension with the convention in agency-based corporate governance which prizes independent directors as a monitoring force on Boards. Indeed the UK's Corporate Governance Code requires premium-listed companies on the London Stock Exchange to fill half their Boards with independent directors.⁷⁸ Moreover, empirical research has found that independent directors only bring about pro-innovation influence if they are appointed for their complementary expertise and skills,⁷⁹ affirming a resource-based view of the importance of Boards to corporate innovation. The resource-based view of Board composition is would entail different outcomes for Board appointments from the shareholder-centred agency-based perspective which emphasises independence and directors' ability to critically scrutinise and hold to account executive decisions.⁸⁰

Further, empirical research has found that the social capital brought in by Board members is extremely useful for corporate innovation. Chen⁸¹ and Kang et al⁸² find that directors' social connections and interlocking directorates allow them to bring beneficial industry knowledge and ideas to the Board, generally contributing to corporate innovation. Helmers et al⁸³ also find that business group affiliations and the sharing of Board members across a group of related companies is positively related to corporate innovation as cross-fertilisation of knowledge and expertise takes place between the companies. However, the agency-based perspective of corporate governance would unlikely support the promotion of interlocking directorates as cross-appointments on a number of Boards may be seen to adversely affect the quality of directorial independence. If a Board has to choose between an interlocking director with potential to promote innovation and a completely 'outside' candidate, it could face a conflict between the resource-based view of corporate governance that supports the promotion of innovation and adherence to the standards preferred by the conventional model of corporate governance.

Parry D. Baysinger, Rita D. Kosnik and Thomas A. Turk, 'Effects of Board and Ownership Structure on Corporate R&D Strategy' (1991) 34 Academy of Management Journal 205; Houman B Shadab, 'Innovation and Corporate Governance: The Impact Of Sarbanes-Oxley' (2008) 10 University of Pennsylvania Journal of Business and Employment Law 955.

⁷⁸ Para B.1.2.

⁷⁹ Benjamin Balsmeier, Achim Buchwald and Joel Stiebale, 'Outside Directors on the Board and Innovative Firm Performance' (2011) at http://ssrn.com/abstract=1950583; Jun-Koo Kang, Wei-Lin Liu, Angie Low, and Le Zhang, 'Friendly Boards and Innovation' (2014) at http://ssrn.com/abstract=2177857.

⁸⁰ The importance of 'independent' directors is discussed as a point of international convergence in Section A in relation to the dominance of shareholder-centred agency-based corporate governance standards.

⁸¹ Hsiang-Lan Chen, 'Board Capital, CEO Power and R&D Investment in Electronics Firms' (2014) 22 Corporate Governance: An International Review 422.

⁸² Jun-Koo Kang, Wei-Lin Liu, Angie Low, and Le Zhang, 'Friendly Boards and Innovation' (2014) at http://ssrn.com/abstract=2177857.

⁸³ Christian Helmers, Manasa Patnam and P. Raghavendra Rau, 'Do Board Interlocks Increase Innovation? Evidence from a Corporate Governance Reform in India' (2017) at http://ssrn.com/abstract=2309082.

There is also empirical research on incentivising corporate leadership with appropriate remuneration and tenure packages in order to promote innovation leadership. Empirical research has found that incentivising CEOs with a pay-for-performance package over the long-term with longer periods of vesting improves corporate innovation⁸⁴ such as in relation to CEOs' willingness to make corporate investments for the long-term. This may however be in conflict with the agency-based perspective of corporate governance that ties pay-for-performance to shorter term financial benchmarks.⁸⁵ The two corporate governance perspectives are however in alignment in terms of CEO tenure, that entrenchment should not be encouraged via long tenures as entrenchment does not incentivise leadership in innovation.⁸⁶ However, there are mixed results as to whether CEO turnover, which reflects the effectiveness of an agency-based model of corporate governance is good for corporate innovation. Bereskin and Hsu⁸⁷ has found that CEO turnover improves levels of corporate innovation but Manso⁸⁸ finds that tolerance for failures in innovative projects and retaining the CEO could help improve subsequent corporate innovation.

Shareholders as Resource

A resource-based view of the firm also departs from the shareholder-centred agency-based model in relation to the salience of shareholders, especially controlling ones.

Major shareholders who have controlling powers are often seen as important resources for firm innovation. As concentrated owners they are likely to have long-term commitment to the success of the company and willing to make R&D investments and promote innovation. The stability factor that major and long-term shareholders bring has been found to be positively related to innovation. This has been found even in relation to bank shareholdings, important in jurisdictions reliant on bank-based finance, 90 and in relation to

⁸⁴ R Gopalan et al, 'Duration of Executive Compensation' (2014) 69 Journal of Finance 2777; Marianna Makri, Peter J. Lane and Luis R. Gomez-Mejia, 'CEO Incentives, Innovation, and Performance in Technology-Intensive Firms: AReconciliation of Outcome and Behavior-Based Incentive Schemes' (2006) 27 Strategic Management Journal 1057; Josh Lerner & J Wulf, 'Innovation and incentives: Evidence from corporate R&D' (2007) 89 The Review of Economics and Statistics 634-644; IJ Chen & SH Lin, 'Managerial Optimism, Investment Efficiency, and Firm Valuation' (2014) 18 Multinational Finance Journal 341.

⁸⁵ David I Walker, 'The Challenge of Improving the Long-Term Focus of Executive Pay' (2009) at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1396663; Benjamin Bennett et al, 'Compensation Goals and Firm Performance' (2015) at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2433687. Forbes.com reports research that associates shorter-term pay benchmarks with higher pay and worse performance over the long-term, see 'Time To Rethink CEO Compensation', *Forbes.com* (1 Aug 2016).

⁸⁶ Yasemin Y Kor, 'Direct and Interaction Effects of Top Management Team and Board Compositions on R&D Investment Strategy' (2006) 27 Strategic Management Journal 1081; Nina Baranchuk, Robert Kieschnick and Rabih Moussawi, 'Motivating Innovation in Newly Public Firms' (2013) at http://ssrn.com/abstract=1784024.

⁸⁷ Frederick L Bereskin and Po Hsuan Hsu, 'Bringing in Changes: The Effect of New CEOs on Innovation' (2014)

at http://ssrn.com/abstract=1944047.

88 Gustavo Manso, 'Motivating Innovation' (2011) 66 Journal of Finance 1823, also at http://ssrn.com/abstract=891514.

⁸⁹ CW Hill & SA Snell, 'Effects of Ownership Structure and Control on Corporate Productivity' (1989) 32 Academy of Management Journal 25-46; Munjae Lee, 'Impact of Corporate Governance on Research and Development Investment in the Pharmaceutical Industry in South Korea' (2015) 6 Osong Public Health Res Perspectives 249.

⁹⁰ David Hillier, Julio Pindado, Valdoceu de Queiroz and Chabela de la Torre, 'The Impact of Country-Level Corporate Governance on Research and Development' (2011) 42 Journal of International Business Studies 76.

friendly corporate shareholders, such as the Japanese Keiretsu.⁹¹ Further, major shareholders such as founder families bring social capital to the company to support the company's business, for example by expanding the company's networks.⁹²

Concentrated ownership is however viewed with suspicion under the conventional model of corporate governance, as controlling shareholders could pose agency problems to minority shareholders.⁹³ A number of commentators warn that as controlling shareholders are in a position to benefit themselves by tunnelling and appropriating corporate assets, they may not be dedicated to investing corporate resources in R&D and optimally promote innovation.⁹⁴ Perhaps it is not unequivocal that controlling shareholders are good for firm innovation and long-term success, and much depends on the incentives at play in the market and firm contexts. However it would be important not to dis-incentivise controlling owners from bringing a beneficial form of long-termism and stability that is facilitative for innovation. In this respect certain incentives for long-term controlling shareholders may promote innovation even if these notions are seen as offensive against standards safeguarded under the agency-based corporate governance model. For example, commentators discuss the use of unequal shareholder rights and some forms of takeover protection that may be beneficial for a company's long-term success.⁹⁵

One of the key incentives for promoting innovation lies in the sense of 'ownership' and commitment that founder-controllers have for their firms. Empirical research has found that founder-controllers often bring with them innovative visions and a long-term commitment to making the enterprise successful, and are thus a highly valuable resource. ⁹⁶ In particular, there is a growing trend for founders of Silicon Valley technology companies to retain control through a dual-class share structure in which voting rights exceed cash flow rights. Founder shareholders may be motivated to insist on such voting structures due to concerns about the potential risk of short-termism in widely-held corporations. For example, Google's

⁹¹ K Hosono, M Tomiyama, & T Miyagawa, 'Corporate Governance and Research and Development: Evidence from Japan' (2004) 13 Economics of Innovation and New Technologies 141–164.

⁹² Suman Lodh, Monomita Nandy, and Jean Chen, 'Innovation and Family Ownership: Empirical Evidence from India' (2014) 22 Corporate Governance: An International Review 4.

⁹³ See Financial Conduct Authority, *Enhancing the Effectiveness of the Listing Regime :A Consultation Paper* (Nov 2012) and *Enhancing the Effectiveness of the Listing Regime and Further Consultation* (November 2013); FCA, 'Response to CP13/15 – Enhancing the Effectiveness of the Listing Regime' (16 May 2014) which form the background to Listing Rules reform in the UK for listed companies with controlling shareholders; see also discussion in Roger M Barker and Iris H-Y Chiu, 'Protecting Minority Shareholders in Blockholder-Controlled Companies – Evaluating the UK's Enhanced Listing Regime in Comparison with Investor Protection Regimes in New York and Hong Kong (2015) 10 Capital Markets Law Journal 98.

⁹⁴ Filippo Belloc, Eleanora Laurenza and M Alessandro Rossi, 'Corporate Governance Effects on Innovation when both Agency Costs and Asset Specificity Matter' (2016) Industrial and Corporate Change, forthcoming, at http://ssrn.com/abstract=2721375; Suk Bong Choi, Byung Il Park, and Paul Hong, 'Does Ownership Structure Matter for Firm Technological Innovation Performance? The Case of Korean Firms' (2012) 20 Corporate Governance: An International Review 267.

⁹⁵ Marc Moore and Edward Walker-Arnott, 'A Fresh Look at Stock Market Short-Termism' (2014) 41(4) Journal of Law and Society 416.

⁹⁶ Yasemin Y Kor, 'Direct and Interaction Effects of Top Management Team and Board Compositions on R&D Investment Strategy' (2006) 27 Strategic Management Journal 1081; Yongwook Paik and Heejin Woo, 'The Effects of Corporate Venture Capital, Founder Incumbency, and Their Interaction on Entrepreneurial Firms' R&D Investment Strategy' (2017) at http://ssrn.com/abstract=2340900.

founder shareholders Larry Page and Sergey Brin have retained significant control of 55.7% after the initial public offer of shares despite having only 15% of the cash flow rights. ⁹⁷ They cite their long-term perspective as rationale for supporting the issue of a class of non-voting shares, which controversially started trading in April 2014. ⁹⁸ Successful companies such as Facebook and Alibaba are also intensely controlled by their founders. ⁹⁹ The commitment of founder-controllers is secured at a 'corporate governance price', such as greater or weighted voting rights for such founders even if this is mismatched with cash flow rights. ¹⁰⁰ The common use of dual-class voting shares or in Snapchat's case, the issuance of non-voting shares to outside shareholders, are means of ensuring that founders remain in control of the firm's innovative visions and that the company is relatively insulated from outside shareholders' 'short-termism'. ¹⁰¹ Minority outside shareholders view this with great scepticism as unequal shareholder rights can entail agency problems. ¹⁰² There is however a resource-based justification for incentivising such founder-controllers' commitments by allowing them to maintain control.

Although some jurisdictions have resisted dual-class shares, such as Hong Kong,¹⁰³ the key American stock exchanges and the London Stock Exchange have allowed dual-class shares for some time now. The NYSE Listing Rules provide some safeguards for minority shareholders of listed companies that feature dual-class voting or concentrated ownership. The Listing Rules contain general principles to prohibit conflicts of interest, misappropriation of corporate opportunities¹⁰⁴ and director/officer share transactions surrounding corporate communications.¹⁰⁵ Related-party transactions however do not require shareholder voting except where they are issues of securities to the effect of increasing voting power by at least one per cent.¹⁰⁶ These transactions may be effected after scrutiny by the audit committee.¹⁰⁷ Given the traditional US context of corporate resistance towards increasing shareholder rights,¹⁰⁸ it is perhaps not surprising that the NYSE Listing Rules do not feature

⁹⁷ 'John Plender: Google takes us back to Old Europe', Financial Times (9 May 2004).

⁹⁸ 'Google founders look to cement control with novel share split', Financial Times (2 April 2014).

⁹⁹ There is contrary empirical evidence that shows worse long-term performance by firms that have used dualclass shares, see Paul A Gompers, Joy Ishii and Andrew Metrick, 'Extreme Governance: An Analysis of Dual-Class Firms in the United States' (2010) 23 Review of Financial Studies 1051; 'The Cost of Control', The Economist (21 July 2011) at http://www.economist.com/node/18988938. However the empirical surveys are performed on firms between 1995-2002, that is before the advent of more recently successful technology giants such as Google and Facebook.

¹⁰⁰ Eg see 'Google founders look to cement control with novel share split', *Financial Times* (2 April 2014).

¹⁰¹ Joseph A. McCahery and Erik P.M. Vermeulen, 'Venture Capital, IPOs and Corporate Innovation' (2013-4) at http://ssrn.com/abstract=2298315.

¹⁰² Joel Seligman, 'Equal Protection in Shareholder Voting Rights: The One Common Share, One Vote Controversy' (1986) 54 George Washington Law Review 687; Jeffrey N Gordon, 'Ties That Bond: Dual-class Common Stock and the Problem of Shareholder Choice' (1988) 76 California Law Review 1.

¹⁰³ See 'Exchanges divided by dual-class shares', *Financial Times* (3 Oct 2013) at https://www.ft.com/content/e18a6138-2b49-11e3-a1b7-00144feab7de.

¹⁰⁴ Under the requirement imposed on listed companies to maintain a Code of Business Conduct and Ethics, section 303A.10.

¹⁰⁵ Section 309.00.

¹⁰⁶ Section 312.03.

¹⁰⁷ Section 314.00.

¹⁰⁸ in particular the Business Roundtable's aggressive lobbying efforts on behalf of the management sector and its successes in court in invalidating pro-shareholder rules enacted by the SEC.

many specific shareholder protections, particularly in relation to companies with a dual-class voting structure. That said, empirical research¹⁰⁹ in the US shows that many companies featuring dual-class voting structures have voluntarily put in place mechanisms such as increased independent Board representation to assuage minority concerns. NASD and AMEX, both of which allowed dual-class voting structures, also subject such companies to certain corporate governance safeguards.¹¹⁰

Where the London Stock Exchange is concerned, special listing rules apply to companies which feature a controlling shareholder in terms of voting rights. ¹¹¹ Such a controlling shareholder is required to enter into a relationship agreement with the company to preserve the company's business independence. An independent director on the Board may determine if this is breached and call for all related-party transactions to be subject to minority shareholders' veto. In practice this power is rarely used ¹¹² as there is a lack of further dispute resolution between independent directors and their companies if this power is exercised. Minority shareholders are also allowed to vote as a separate class on all appointments of independent directors and if a change in listing status is proposed.

The measures above seem to reflect the compromises struck by listing authorities in adhering to minority shareholders' preference for agency-based standards of corporate governance as well as accommodating the needs of companies that perceive key shareholders as important resources for the company's continued innovative success. This area is however by no means settled¹¹³ and continues to draw out the tensions between the resource-based and agency-based theories of corporate governance.

Distrust of significant control is pitted against the advantages of keeping founder-controllers incentivised. Choi¹¹⁴ argues that the disadvantages of agency (i.e. extraction of private benefits by controllers) are outweighed by the advantages of long-term corporate success. This is supported by other recent empirical research.¹¹⁵ Dallas and Barry¹¹⁶ find that where

¹⁰⁹ R. Charles Moyer, Ramesh Rao, and Phillip M. Sisneros, 'Substitutes for Voting Rights Evidence from Dual Ciass Recapitaiizations' (1992) Financial Management 35.

¹¹⁰ NASD required that the listed company appoint at least two independent directors and that an independent audit committee had to be formed; AMEX required that shareholders be allowed to appoint at least two directors to the Board within 2 years of the dual-class listing.

¹¹¹ FCA Handbook Listing Rules 6.1A.

¹¹² The regime is discussed in Roger M Barker and Iris H-Y Chiu, 'Protecting Minority Shareholders in Blockholder-Controlled Companies – Evaluating the UK's Enhanced Listing Regime in Comparison with Investor Protection Regimes in New York and Hong Kong (2015) 10 Capital Markets Law Journal 98 and Bobby V Reddy, 'The Fat Controller - Slimming Down the Excesses of Controlling Shareholders in UK Listed Companies' (2017) at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3056999.

¹¹³ Eg see 'HKEX Mulls Over Dual-Class Shares Again' (*Straits Times,* 20 Jan 2017) after giving up on it after consultation in 2015.

¹¹⁴ Albert Choi, 'Concentrated Ownership and Long-Term Shareholder Value' (2017) Harvard Business Law Review, forthcoming at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2619462.

¹¹⁵ Stephan Nüesch, 'Dual-Class Shares, External Financing Needs, and Firm Performance' (2016) 20 Journal of Management and Governance 525 arguing that dual-class structured firms perform better financially if equity financing is also sought on open markets, as the inherent concerns with agency problems will moderate the expropriation risks of dual-class voting structures.

¹¹⁶ Lynne Dallas and Jordan M Barry, 'Long-Term Shareholders and Time-Phased Voting' (2015) 40 Delaware Journal of Corporate Law 541.

companies implement time-phased voting, a milder form of dual-class structure which rewards longer term shareholders with more voting rights, such firms have not only outperformed financially in the long-term but have also diversified their shareholder base, ensuring that there is little risk of entrenchment of insiders. However, opposing empirical research indicates that dual-class voting structures can reduce trust in companies and may be avoided by some investors. Gompers et al also find that listed companies with dual-class structures have by and large performed worse over the long term than those without a controlling shareholder. 118

Next, insulation from takeover threats, or takeover protection, may be useful in fostering innovation in companies. A number of commentators have found that innovation can be better nurtured in an environment not subject to the disruptions of takeover threats, 119 hence suggesting that anti-takeover regimes may be regarded as a pro-innovation factor. This is in conflict with agency-based corporate governance standards that tend to regard the market for corporate control as a form of discipline for management and as a key form of shareholder protection. L'Huillery¹²⁰ finds a positive correlation between less anti-takeover provisions and the promotion of innovation in French companies, but is of the view that one should not regard shareholder-friendly rules as unequivocally pro-innovation. His research is highly context-specific and shareholder-friendly rules could be regarded as much-needed relief from prevailing protectionist corporate governance practices in the French corporate sector. Such mixed results perhaps suggest that some extent of takeover protection may benefit companies in highly open markets for corporate control, such as the UK, where the dominance of the agency-based corporate governance model has already produced concerns with regard to short-termism in the listed corporate sector. 121 Executives could be dis-incentivised from committing to long-term investments in R&D or taking risks in proinnovation strategies. That said, the UK has maintained a top 5 position in the Global Innovation Index for the last 5 years, although slipping since 2013.

Stakeholders and Social Capital as Resources

¹¹⁷ See earlier article by Vijay Jog and Allan L Riding, 'Price Effects of Dual-class Shares' (1986) Financial Analysts Journal 58.

¹¹⁸ Paul A Gompers, Joy Ishii and Andrew Metrick, 'Extreme Governance: An Analysis of Dual-Class Firms in the United States' (2010) 23 Review of Financial Studies 1051; 'The Cost of Control', *The Economist* (21 July 2011) at http://www.economist.com/node/18988938.

¹¹⁹Nina Baranchuk, Robert Kieschnick and Rabih Moussawi, 'Motivating Innovation in Newly Public Firms' (2013) at http://ssrn.com/abstract=1784024; M Straska and G Waller, 'Do Antitakeover Provisions Harm Shareholders?' (2010) 16 J. Corporate Finance 487–497; Haresh Supra and Ajay Subramaniam, 'Corporate Governance and Innovation: Theory and Evidence' (2012) at http://ssrn.com/abstract=1103676; J. R. Becker-Blease, 'Governance and Innovation' (2011) 17 Journal of Corporate Finance 947-958. See also Mehmet Ugur and Nawar Hashem, 'Market Concentration, Corporate Governance and Innovation: Partial and Combined Effects in US-Listed Firms' (2013) at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2210928 who report that takeover protection can incentivise increased R&D spend but may not correlate with more valuable brands or patents.

 ¹²⁰ Stéphane Lhuillery, 'The Impact of Corporate Governance Practices on R&D Intensities of Firms: An Econometric Study on French Largest Companies' (2009) at http:://ssrn.com/abstract=1426089.
 121 BIS, The Kay Review of UK Equity Markets and Long-Term Decision Making (Final Report, 23 July 2012)http://www.aspeninstitute.org/publications/overcoming-short-termism-call-more-responsible-approach-investment-business-management.

Next, empirical research has also found that corporate innovation can be promoted if a company engages more intensely with stakeholders and learns useful knowledge, ideas and feedback for its strategic development in innovation. 122 Greater employee participation such as in the German co-determination system of corporate governance 123 and a flatter working structure 124 also facilitate corporate innovation as human capital in the company is made more engaged with corporate purposes and success, and therefore becomes more committed and productive. These findings have implications for the shareholder-centred agency-based model of corporate governance, as promoting innovation may require the elevation of stakeholders in relation to representation and participation in corporate governance.

The resource-based theory of the firm focuses on different locations of innovative potential in resources in order to mobilise and galvanise them towards the collective enterprise of the firm. Hence it is not necessarily supportive of shareholder primacy. Indeed it can be argued that the resource-based theory of the firm resonates with alternative theories of corporate governance such as director primacy, director stewardship, stakeholder theory and social theories of the company.

The resource-based theory of the firm arguably finds resonance with the perspective that the company is a 'team' of corporate constituents¹²⁵ that contributes inputs into the collective enterprise of the company. As such, directors' roles are to organise the mobilisation and deployment of such inputs in a coherent manner, and the exercise of their powers is for such purpose and not necessarily focused only on shareholder wealth maximisation or accountability to shareholders. Further this director primacy theory accords well with the 'stewardship' perspective of directors' roles, which offers a view of directors as stewards of corporate resources for the success of the collective enterprise of the company. They should not merely be seen as self-interested 'agents' who may serve their own purposes or shirk their responsibilities. To an extent, this theory accords with the position in both US and UK corporate law as directors owe their duties to the company as a distinct legal personality from shareholders or groups of shareholders. However, as the company is a legal fiction, even UK law accepts that the corporate objective is the

¹²² S Ayuso, M Ángel Rodríguez & J Enric Ricart, 'Using Stakeholder Dialogue as a Source for New Ideas: A Dynamic Capability Underlying Sustainable Innovation' (2006) 6 Corporate Governance: The international journal of business in society 475-490; Erik Vermeulen, Mark Fenwick and Masato Hisatake, 'Intelligent Cars Inc. - Governance Principles to Build a Disruptive Company' (2016) at http://ssrn.com/abstract=2823006.

¹²³ Fillipp Belloc, 'Corporate Governance and Innovation: A survey' (2012) 26 Journal of Economic Surveys 835.

¹²⁴ Erik Vermeulen, Mark Fenwick and Masato Hisatake, 'Intelligent Cars Inc. - Governance Principles to Build a

¹²⁴ Erik Vermeulen, Mark Fenwick and Masato Hisatake, 'Intelligent Cars Inc. - Governance Principles to Build a Disruptive Company' (2016) at http://ssrn.com/abstract=2823006.

 ¹²⁵ Margaret M Blair & Lynn A Stout, "A Team Production Theory of Corporate Law" (1999) 85 Virginia. L. Rev.
 247; Allen Kaufman and Ernie Englander, 'A Team Production Model of Corporate Governance' (2005) 19
 Academy of Management Executive 9.

¹²⁶ The director primacy theory, also supported by Stephen M Bainbridge, 'Director Primacy: The Means and Ends of Corporate Governance' (2002) at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=300860.

¹²⁷ J.H Davis, D.L. Schoorman and L Donaldson, 'The Distinctiveness of Agency Theory and Stewardship Theory' (1997) 22 Academy of Management Review 611; Catherine M. Daily, Dan R. Dalton and Albert A. Cannella Jr, 'Corporate Governance: Decades of Dialogue and Data' (2003) 28 Academy of Management Review 371.

¹²⁸ Section 170, UK Companies Act 2006; in the US, for example see *Aronson v Lewis* 473 A 2d 805 (Del 1984).

'hypothetical' collective bargain of shareholders as a whole- which is understood as wealth creation in shareholders' interests over the long term. 129 Keay has since argued for the corporate objective to be understood as distinct and separate from shareholders' interests, and his view of long-term corporate survival and success is capable of forming the practical basis for directors' powers and duties under company law. 130

Further it can also be argued that where stakeholders are important locations of resource for innovation, a model of corporate governance that incorporates stakeholder theory could be highly beneficial to the company. It is argued that stakeholder connections with firms could be intangible assets that firms can exploit for their competitive advantage, ¹³¹ such as employees ¹³² and human capital connected with the firm, as well as stakeholders such as users and customers that bring network effects and positive reputational effects to firms. For example, a company like Facebook builds its success upon the trust and proliferation of use among its user communities, and its user base is therefore a massive resource for the company's innovative developments. Amazon.com also relies on its customers to build up its increasingly trusted 'feedback' system that encourages network effects and builds up reputational reliability, further enhancing its core business in sales.

Extending the stakeholder mapping of companies would also allow us to consider more broadly 'social capital' or 'natural capital' as being locations of resources for firms to exploit in terms of innovation, and such a perspective may fundamentally change our view of what an appropriate corporate governance model for a firm should be. Hart¹³³ proposes that we should see natural resources and their sustainability as part of the resource-based theory of the firm, so that firms treat not only the use or exploitation of natural resources as important to their enterprise, but the protection and sustainability of such resources and the avoidance of externalities (such as pollution) as the essential counterpart to their enterprise too. This is because protecting sustainability and avoiding externalities address not only long-term sourcing for firms, but also helps to preserve firm-community relations in a positive manner, in order to sustain the firm's legitimacy of its enterprise. 134 Further, Branco and Rodrigues support the view that a firm's social capital, i.e. its community relations, its influence, reputation and legitimacy are extremely important resources for the firm. 135 Hence firms may find it essential to develop social responsibility in order to protect and preserve its 'social capital' resources. These aspects are relevant to firm innovation, as inspiration for innovation can be derived from social capital resources. Further, such resources may also be important in amplifying the positive effects of innovation in terms of

¹²⁹ Section 172, UK Companies Act 2006.

¹³⁰ Andrew Keay, *The Corporate Objective* (Cheltenham: Edward Elgar 2010).

¹³¹ Arturo Capasso, 'Stakeholder Theory and Corporate Governance: The Role of Intangible Assets' (2004) at ttps://papers.ssrn.com/sol3/papers.cfm?abstract_id=610661.

¹³² Frank Mueller, 'Human Resources as Strategic Assets: An Evolutionary Resource-Based Theory' (1996) 33 Journal of Management Studies 757.

¹³³ Stuart L Hart, 'A Natural Resource-based View of the Firm' (1995) 20 Academy of Management Review 996.

 ¹³⁴ Referred in as the 'social licence' to operate, see for example Karin Buhmann, 'Public Regulators and CSR: The 'Social Licence to Operate' in Recent United Nations Instruments on Business and Human Rights and the Juridification of CSR' (2016, Journal of Business Ethics, forthcoming) at http://ssrn.com/abstract=2705360
 ¹³⁵ Manuel Castelo Branco and Lúcia Lima Rodrigues, 'Corporate Social Responsibility and Resource-Based Perspectives' (2006) 69 Journal of Business Ethics 111.

'spreading the word' or boosting the social and market appeal of firms' innovative products and processes.

If the resource-based view of the salience of stakeholders and social capital is mapped onto an optimal model of corporate governance, then each firm's model of corporate governance, depending on its resources needs, could be very different from that standardised under the shareholder-centred agency-based model. There may be a case for the relevant firm to accommodate stakeholders in representation or participation in corporate governance¹³⁶ or even consider embracing elements of social and public accountability.¹³⁷ This would give rise to questions of new matrices of power allocations among shareholders, stakeholders and Boards.¹³⁸ Chiu¹³⁹ argues that in attempting to actualise or operationalise a stakeholder theory of corporate governance in company law, heavy lifting is required as power is required to be distributed away from shareholders under the shareholder-centred agency based model, in favour of stakeholders in an organised and coherent manner. Further, directors' powers to undertake such coordination and organisation need to be enhanced. These implications would likely create much resistance in the current institutional shareholder community which largely supports the prevailing shareholder-centred agency-based corporate governance standards.

Structures for Governing Innovation in Companies

Deschamps and Nelson in their book¹⁴⁰ discuss the importance of having a governance structure in firms for innovation. This ensures that personal leadership and responsibility is being taken for stimulating, overseeing and implementing innovation. The CEO is often seen as a strategic lead for innovation¹⁴¹ and indeed in many innovative technology companies, the combination of CEO and founder-controller as strategic innovation lead has proved to

¹³⁶ Donna Wood, 'Corporate Responsibility and Stakeholder Theory: Challenging the Neoclassical Paradigm' in Bradley R. Agle, Thomas Donaldson, R. Edward Freeman, Michael C. Jensen, Ronald K. Mitchell and Donna J. Wood, *Towards Superior Stakeholder Theory* (2008) 18 Business Ethics Quarterly 159; Tom Donaldson, 'Two Stories' in Bradley R. Agle, Thomas Donaldson, R. Edward Freeman, Michael C. Jensen, Ronald K. Mitchell and Donna J. Wood, *Towards Superior Stakeholder Theory* (2008) 18 Business Ethics Quarterly 159; Andrew Crane and Trish Ruebottom, 'Stakeholder Theory and Social Identity: Rethinking Stakeholder Identification' (2011) 102 Journal of Business Ethics 77; James A Steib, 'Assessing Freeman's Stakeholder Theory' (2009) 87 Journal of Business Ethics 401.

¹³⁷ See for example, Carl Kaysen, "The Corporation: How Much Power? What Scope?" in Edward S Mason ed, *The Corporation in Modern Society* (Mass: Harvard University Press 1970) at 85; John E Parkinson, *Corporate Power and Responsibility: Issues in the Theory of Company Law* (Oxford: Clarendon Press 1995); Philip Blumberg, "The Politicization of the Corporation" (1971) 26 Business Lawyer 1551; Lawrence E Mitchell, "Groundwork Of The Metaphysics Of Corporate Law" (1993) 50 Washington and Lee Law Rev 1477. Also see writings aimed at encouraging the corporation to take up responsible citizenship, see Lawrence E Mitchell (ed), *Progressive Corporate Law* (Boulder: Westview Press 1995); Sally Wheeler, *Corporations and the Third Way* (Oxford: Hart 2002); Kent Greenfield, "New Principles For Corporate Law" (2005) 1 Hastings Business Law Journal 89; *The Failure of Corporate Law* (London: The University of Chicago Press 2006).

¹³⁸ Iris H-Y Chiu, 'Operationalising A Stakeholder Conception in Company Law' (2017) Law and Financial Markets Review 173.

¹³⁹ Above.

 ¹⁴⁰ Jean-Philippe Deschamps and Beebe Nelson, *Innovation Governance: How Top Management Organizes and Mobilizes for Innovation* (Chicester: John Wiley & Sons 2014) at ch 4.
 ¹⁴¹ Above.

be very effective.¹⁴² However firms can innovate effectively even with different types of structures in place for governing innovation, so as long as there is a credible structure. In some firms a Chief Technical Officer may be the strategic lead for corporate innovation, in others a steering group of executives or business leaders could take the lead.¹⁴³

The agency-based perspective of corporate governance emphasises governing structures that focus on monitoring, hence the development of audit committees on the Board after corporate reporting scandals in the UK¹⁴⁴ and US, ¹⁴⁵ and the development of risk committees on the Board after the global financial crisis 2007-9.146 As Lazonick and O'Sullivan¹⁴⁷ point out, there is no theory of innovation in this corporate governance model and no recommended structural standards for companies in promoting and governing innovation. Further, there may be tensions between pursuing innovation and instituting a corporate culture that meets the standards of the agency-based corporate governance model. Moore¹⁴⁸ points out that corporate governance standards are evolving towards a 'risk moderation' role for Boards after the global financial crisis 2007-9, in order to protect shareholder value from excessive risk-taking, and this may be antagonistic to developing pro-innovation and risk-taking leadership on Boards. Mendoza et al¹⁴⁹ also point out that the procedural compliance required to maintain the corporate governance standards in the prevailing agency-based model fosters defensive and box-ticking behaviour on Boards, and this may do little in stimulating innovative leadership. Perhaps this is why McCahery et al¹⁵⁰ argue that innovative firms avoid being subject to securities markets pressures as conformity with agency-based corporate governance standards is often expected in securities markets.

Although we have presented both sides of the empirical research on what matters in corporate governance for firm innovation, we find that (a) tensions remain between adhering to the prevailing agency-based corporate governance standards and the corporate governance needs of firms that facilitate innovation; but (b) the shareholder-centred agency based model of corporate governance is not irrelevant to and could contribute to an extent to firm innovation. We propose two sets of implications in Section C. Section C proposes that prevailing corporate governance standards should be adjusted if such standards are

¹⁴² For example Jeff Bezos as the CEO, founder-controller and innovative lead of Amazon; Mark Zuckerberg as the equivalent in Facebook and Jack Ma having an equivalent position in Alibaba.

¹⁴³ Deschamps and Nelson (2014), above.

¹⁴⁴ After the fall of Polly Peck and BCCI in the early 1990s, the audit committee was a best practice in corporate governance recommended in the Cadbury Code of Corporate Governance 1992.

¹⁴⁵ This change was brought about by s301 of the Sarbanes-Oxley Act 2002 introduced after the fall of Enron in 2000, and implemented by national stock exchanges in their listing rules relating to corporate governance. ¹⁴⁶ For eg reforms in Art 88(1)(a), EU Capital Requirements Directive 2013.

¹⁴⁷ William Lazonick and Mary O'Sullivan, 'Corporate Governance, Innovation and Economic Performance in the EU' (CGEP Report 2004).

¹⁴⁸ Marc T Moore, 'The Evolving Contours of the Board's Risk Management Function in UK Corporate Governance' (2010) 10 Journal of Corporate Law Studies 279.

¹⁴⁹ Jose M. Mendoza, Christoph Van der Elst and Erik P.M. Vermeulen, 'Entrepreneurship and Innovation: The Hidden Costs of Corporate Governance in Europe' (2010) at http://ssrn.com/abstract=1698352.

¹⁵⁰ Joseph A. McCahery and Erik P.M. Vermeulen, 'Venture Capital, IPOs and Corporate Innovation' (2013-4) at http://ssrn.com/abstract=2298315.

adverse to the resources, structures or incentive designs that promote corporate innovation. Indeed, excessive prescriptions in corporate governance standards are probably sub-optimal for promoting innovation. However, securities markets do not seem to favour excessive levels of flexibility or open-endedness in corporate governance standards. In view of the need to create a balance between predictability and flexibility in investors' expectations of today's listed companies, Section C proposes a 'middle way' that preserves the prevailing standards of corporate governance but allows for coherently and justifiably developed exceptions that can be derived from the resource-based needs of firms in relation to innovation. In light of this proposal, Section C urges caution in respect of the indefatigable movement of international standardisation and convergence around shareholder-centred agency-based corporate governance standards.

C. Accommodating Pro-Innovation Corporate Governance Standards

The prevailing corporate governance standards in the UK¹⁵¹ and in many leading jurisdictions are focused on addressing the agency problem in corporate governance: protecting shareholder value in the corporation, upholding minority shareholder rights, ensuring that Boards monitor executives and that the Board is itself monitored by independent directors. This model is characterised as a 'value protection' but not a 'value-creation' model in terms of corporate strategy.¹⁵² As discussed in Section B, excessive concern with 'value protection' based on assumptions about individualistic and opportunistic economic behaviour may result in a myopic neglect of the more 'optimistic' perspectives regarding human behaviour and motivations in advancing a collective endeavour and enterprise. Corporate governance standards should incorporate facilitative aspects towards the latter aspects, as ultimately, both 'value protection' and 'value creation' perspectives aim at the same ultimate objective of corporate success, and are two sides of the same coin.

There is a case to consider adjusting prevailing corporate governance standards in order not to dis-incentivise innovation. In the alternative, we could consider establishing a different set of corporate governance standards (or an alternative Code) for innovative companies.

In the UK, corporate governance standards are largely maintained as 'soft law'. ¹⁵³ Some securities markets such as the New York Stock Exchange have made certain corporate governance requirements mandatory such as the composition of independent directors and the institution of the audit committee, but listed issuers on the London Stock Exchange only have to 'comply or explain' in relation to the UK Corporate Governance Code. This means companies can explain any deviations from the Code and it is up to their shareholders to determine if explanations for deviation are acceptable. In theory companies could adapt the Code to their unique needs and explain to investors if they deviate from the Code. It will then be up to investors to judge if such deviation is likely to secure value for the company or

¹⁵¹ UK Corporate Governance Code 2016 at https://www.frc.org.uk/Our-Work/Publications/Corporate-Governance/UK-Corporate-Governance-Code-April-2016.pdf.

Roger M Barker, 'Re-Designing Corporate Governance to Promote Innovation' (GUBERNA paper 2016).
 Some aspects are 'legalised' such as the binding shareholder vote on executive remuneration under s439A,
 UK Companies Act 2006, but many matters such as Board composition or committees are left to the Code.

otherwise. The comply-or-explain approach also seems to be the prevailing approach for many jurisdictions and stock markets that have adopted a corporate governance code. ¹⁵⁴ As corporate governance codes are 'soft law' in nature, there is inherent flexibility for companies to adapt the standards in the codes to their pro-innovation needs. Hence it can be argued that the tensions between prevailing standards based on a shareholder-centred agency-based model and firm innovation needs should not be exaggerated as companies can make appropriate governance choices and explain to their shareholders.

However, in reality there is considerable market pressure for what Moore describes as the evolution of a 'comply-or-else' regime. This is largely because early implementation of comply-or-explain generated boilerplate and routine explanations that were opaque and not meaningful, making the 'explain' strategy discreditable. Subsequent efforts at enhancing explanations (such as in the case of Marks & Spencer Plc discussed in Moore, above), especially where companies desired a unique deviation, were not met with welcome in capital markets. Investors suffer from information asymmetry in determining if unique explanations are beneficial and tend to trust standardised practices that are in compliance. The role of proxy advisory agencies in standardising expectations of what is 'good' corporate governance is also of significant influence. Standardised practices that are in compliance.

Explicit adjustments to established corporate governance codes such as the UK Corporate Governance Code would likely face many challenges, even if framed towards the purposes of promoting firm innovation. The UK Corporate Governance Code for example, is a product of influences increasingly dominated by the investment sector. ¹⁵⁸ This sector has every incentive to shape a shareholder-centred set of corporate governance standards that protect investment value and minority shareholder rights. Policy-makers also promote the importance of institutional investors as they desire the investment sector to facilitate market-based governance for the corporate sector and minimise the need for state intervention and regulation. ¹⁵⁹ In this light, Code standards that are consonant with shareholders' preferences are unlikely to be pared down. Further, corporate governance codes play a signalling role to investors, indicating that companies listed in the securities market are well-governed and promising. Their 'branding role' in boosting the appeal of securities markets are listing authorities. There is likely to be a degree of anxiety and reluctance to adjust code standards in a manner that is seen to deviate from the

¹⁵⁴ Klaus J Hopt, 'Comparative Corporate Governance: The State of the Art and International Regulation' (2011) 59 American Journal of Comparative Law 1 at 12..

¹⁵⁵ Marc Moore, 'Whispering Sweet Nothings: The Limitations of Informal Conformance in UK Corporate Governance' (2009) 9 Journal of Corporate Law Studies 77-120.

¹⁵⁶ Iain MacNeil and Xiao Li, ""Comply or Explain": Market discipline and non-compliance with the Combined Code" (2006) 14 Corporate Governance 286.

¹⁵⁷ Paul J Rose, 'The Corporate Governance Industry' (2007) 32 Journal of Corporation Law 887.

¹⁵⁸ Iris H-Y Chiu, 'Learning from the UK in the Proposed Shareholders' Rights Directive 2014? European Corporate Governance Regulation from a UK Perspective' (2015) 114 ZVgIRWiss 1.

¹⁵⁹ See 'Introduction' and chapter 3, Roger M Barker and Iris H-Y Chiu, *Investment Management and Corporate Governance in the Financial Economy* (Cheltenham: Edward Elgar, 2017).

¹⁶⁰ R. La Porta, F. Lopez-de-Silanes and A. Shleifer, 'What Works in Securities Laws' (2006) 71 Journal of Finance 1.

shareholder-centred agency-based model. Pressures from international convergence would also make such adjustments unlikely to be pursued. The adoption of similar corporate governance standards in many securities markets around the world has led to the general acceptance of corporate governance codes as being essential capital markets institutions. Global competitive pressures tend towards sustaining or encouraging more convergence of corporate governance standards.

McCahery and Vermeulen¹⁶² posit that an alternative set of corporate governance standards could be established for innovative companies. It can be argued that having a set of alternative corporate governance standards is superior to the situation of open-ended flexibility in deviation from prevailing standards. Recognition for *different* standards that may be useful for companies that engage in significant amounts of innovation, such as in technology, *and* formalisation into a different code give such *different* standards an appeal of legitimacy. This is important for companies in their interface with capital markets as the existence of governance standards fosters investor trust. However developing such a set of standards would also entail defining its scope of application, and justifying why carving out 'innovative companies' as a sector distinguished from the listed corporate sector is appropriate. Would technology, automotive or pharmaceutical companies be regarded as innovative while retail companies may not? Establishing an alternative code for a yet-to-bedefined alternative sector raises boundary issues, and also arbitrage issues, although it can be argued that competition between codes can lead to greater market choice in optimal governance models for listed companies.

For now we argue that an immediately practicable and incremental approach lies in adjusting prevailing corporate governance standards, in the manner of carving out a recognised exception to the standards on the ground of 'resource-based justifications'. This is a refinement of the 'comply-or-explain' model which suffers from the perception problem that 'comply' is ideal, while 'explain', which relates to an uncharted territory, raises investor risk. We are of the view that by formally carving out exceptions, such exceptions can be subject to general principles that reflect companies' resource-based needs that promote innovation. This provides more transparency and predictability for investors, enhancing the acceptability and legitimacy of the exceptions. The principles for the exceptions can be derived from common themes in empirical findings discussed above. We illustrate how such an 'exceptions' regime may work.

Establishing Principled Resource-based Exceptions

The key features of many corporate governance codes deal with Boards and emphasise Boards' roles in effective monitoring and 'value protection'. The excessive prioritisation of 'value protection' priorities may cause Boards to make strategic trade-offs between value protection priorities and 'value creation' strategies. Hence we make a few suggestions in

¹⁶¹ See Chapter I, OECD Principles of Corporate Governance 2015 at http://www.oecd-ilibrary.org/docserver/download/2615021e.pdf?expires=1500891878&id=id&accname=guest&checksum=B25 097F0D5E0194BFBD901ABB7BA7545.

¹⁶² Joseph McCahery and Erik P Vermeulen, 'Corporate Governance and Innovation Venture Capital, Joint Ventures, and Family Businesses' (ECGI Working Paper 2006) at http://ssrn.com/abstract=894785.

terms of exceptions to the standards relating to Board appointments, design of executive remuneration and Board responsibilities in order to accommodate pro-innovation needs that would benefit from a resource-based perspective.

Balancing 'Monitoring' Appointments with 'Resource-based' Appointments

Under the shareholder-centred agency-based model of corporate governance, non-executive directors are to be appointed to the Board to serve primarily in the capacity of 'financial monitor'. They are responsible for scrutinising financial performance, the 'integrity of financial information and that financial controls and systems of risk management'. Such responsibilities are clearly in the vein of chiefly 'defensive' or 'value protecting' purposes.

In order to boost 'monitoring' power on Boards, the composition of non-executive or independent directors is often prescribed. The UK Corporate Governance Code recommends half of the Board to be non-executive and independent. Independence requirements are also applied for the membership of the nomination committee and the majority of membership of the remuneration or audit committees of the Board. These profile requirements pertain to non-executive directors' 'monitoring' role especially in relation to the work of the independent committees of the Board in relation to remuneration design, audit and risk management. Further, the UK Corporate Governance also designates the senior independent director to be the 'monitoring' lead and to interact with shareholders.

We argue that first, the prescriptive composition requirements should be subject to exceptions where resource-based justifications exist. Perhaps an exception can be created to moderate the requirement of 50% independence to 'at least 25%', so that room can be made for resource-based appointments that can be explained. Section B has pointed out how Boards are an important resource, and at times, higher levels of executive appointments or even certain interlocking directorial appointments could be important resources for the firm.

Next, we suggest that it would be a missed opportunity for appointments of non-executive directors to only focus on their financial monitoring roles, as empirical research has found that non-executive directors, especially those with 'social capital', can bring new ideas and strategic input¹⁶⁹ that is useful for the company's promotion of innovation. Further, with the role of the senior independent director being defined to align with the company's accountability to shareholders, perhaps the role of 'non-executive' director should be left more open and welcome to a resource-based perspective of their relevance. The UK

¹⁶³ Chapter A.4 of the Code

¹⁶⁴ Above.

¹⁶⁵ UK Corporate Governance Code B.1.2.

¹⁶⁶ UK Corporate Governance Code, B.2.1; C.3.1 and D.2.1.

¹⁶⁷ UK Corporate Governance Code Sections B.2, C and D.

¹⁶⁸ Chapter A4.1 of the Code.

¹⁶⁹ Strategic contribution by non-executive directors was highlighted in Derek Higgs, *Review on the Role and Effectiveness of Non-executive Directors* (Jan 2003), but over the years and across corporate scandals, the 'monitoring' role of non-executive and independent directors has become more pronounced.

¹⁷⁰ See n81 and 82.

Corporate Governance Code sets out that appointments to the Board are to be evaluated in terms of the balance of skills, knowledge, independence and experience. ¹⁷¹ We urge that appointments to the Board, whether executive or non-executive, should take into account of the resource-based profile of the candidate, and that Board responsibilities be defined more holistically, including the needs of advancing the collective enterprise of the company, besides 'value protection' responsibilities. This would mean explicitly widening the scope of non-executive and independent director's scope of oversight, and requires adjustment on the part of the nomination committee's selection processes.

Under the UK Code, the nomination committee is tasked with selecting suitable executive and non-executive directors. ¹⁷² Empirical research shows that the characteristics of the nomination committee members affect their selection. ¹⁷³ As the committee has three members and a majority are to be independent and non-executive, ¹⁷⁴ in selecting non-executive directors, the committee is likely to apply criteria that are most pertinent to candidates' 'monitoring' qualities, and may play down the importance of strategic capabilities. We urge a more broad-minded application of appointment criteria to non-executive and independent directors, looking conjunctively at their strategic abilities and the 'resources' they can contribute to the company. The nomination committee should be required to report on both the agency-based as well as resource-based justifications for Board appointments in the company's annual report.

One of the implications of widening the scope of non-executive or independent directors' responsibilities is that perhaps such directors could be awarded performance-linked remuneration in order to incentivise them to bring their 'resources' to contribute to the strategic needs of the company. At present under the UK Code, non-executive directors are tied to a monitoring role and cannot be remunerated in a manner linked to the company's performance.¹⁷⁵ The Code is antagonistic to this suggestion as such remuneration is perceived to likely jeopardise non-executive directors' independence or objectivity. It may also be argued that if there are persons interested enough in contributing to the strategy of the company's business in this manner, they should not be put up for non-executive appointments in the first place. However, being an executive director is demanding, and suitable or talented people may not wish to make that commitment if tied up elsewhere. It can be useful to have a non-executive director on Board who needs to be appointed in that capacity only perhaps because s/he holds an executive directorship elsewhere. If we take a resource-based perspective of corporate governance, there is no reason why non-executive directors who contribute to the company's success should not be rewarded in a form of performance-linked remuneration. 176 We see such an exception to the Code's standards as

¹⁷¹ Chapter B.6 of the Code.

¹⁷² UK Corporate Governance Code, B.2.1.

¹⁷³ Szymon Kaczmarek, Satomi Kimino and Annie Pye, 'Antecedents of Board Composition: The Role of Nomination Committees' (2012) 20 Corporate Governance: An International Review 474.

¹⁷⁴ Chapter B.2.1 of the Code.

¹⁷⁵ Chapter D.1.3 of the Code.

¹⁷⁶ Roger M Barker, 'Re-Designing Corporate Governance to Promote Innovation' (GUBERNA paper 2016).

being consistent with the appointment of non-executive directors based on resource-based justifications.

A Different Look at Board Diversity

Board appointments are now affected by policy initiatives that seek to encourage greater diversity, especially gender diversity. 177 Although appointments are made on a merit basis, there is a need to ensure that there is adequate diversity to meet the requirements of 'balance'. The debate on gender diversity that exploded after the global financial crisis 2007-9 focused on the likelihood of women's risk moderation role on Boards, seen as essential to curb excessive risk-taking in business strategy. 178 The impetus behind this initiative, and other forms of diversity are likely to be more socially-motivated as empirical findings on the performance relation to diverse Boards are mixed. 179 One could view gender diversity as bringing about a change in dynamics that could benefit the Board's decision-making process. 180 However such arguments are also causally flimsy and could be based on stereotyping the qualities women bring to boards. 181 The call for more diversity on Boards is curiously not connected to a more resource-based rhetoric. Indeed such a view may make diversity arguments (and not just gender diversity) more legitimate and convincing, especially since empirical research supports the link between diversity on Boards, the promotion of new strategic thinking and increased corporate innovation. 182 It is also opined¹⁸³ that from a resource-based perspective, diversity on Boards also improves social and stakeholder legitimacy, as well as engagement, if these are important to the company's needs.

A Strategy and Innovation Committee of the Board

We are concerned that the functions of the Board, especially in relation to its dedicated committees, are not susceptible to the promotion of corporate innovation for long-term

¹⁷⁷ For example see wide movement in Europe, European Women on Boards, *Gender Diversity on European Boards* (April 2016) at http://european.ewob-network.eu/wp-content/uploads/2016/04/EWoB-quant-report-WEB-spreads.pdf.

¹⁷⁸ Melsa Ararat, Mine H Aksu and Ayse Tansel Cetin, 'The Impact of Board Diversity on Boards' Monitoring Intensity and Firm Performance: Evidence from the Istanbul Stock Exchange' (April 2010), at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1572283 on Turkish banks; MA Gulamhussen and Silva Maria Santos, 'Women in Bank Boardrooms and Their Influence on Performance and Risk-Taking' (April, 2010) at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1615663 argues that gender diversity on bank Boards improves risk moderation.

Performance' (2012) at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1107721; Deborah Rhode and Amanda K Packel, 'Diversity on Corporate Boards: How Much Difference Does Difference Make?' (2010) at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1685615; versus more positive findings by Jie Chen, Woon Sau Leung and Kevin P Evans, 'Board Gender Diversity, Innovation and Firm Performance' (2015) at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2607295.

¹⁸⁰ Barnali Choudhury, 'New Rationales for Women on Boards' (2014) Oxford Journal of Legal Studies 1.

¹⁸¹ Renee B Adams, 'Women on Boards: The Superheroes of Tomorrow?' (ECGI Working Paper 2016) at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2696804.

¹⁸² Jie Chen, Woon Sau Leung and Kevin P Evans, 'Board Gender Diversity, Innovation and Firm Performance' (2015) at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2607295.

¹⁸³ Mijntje Lückerath-Rovers, 'Female Directors on Corporate Boards Provide Legitimacy to a Company: A Resource Dependency Perspective' (2009) Management Online Review 1.

development and success. This is because important committees such as the audit committee and remuneration committee are focused on 'value protection' in respect of their roles. The audit committee has oversight of the integrity of financial reporting, the role of internal control and the appointment or removal of external auditors, while the remuneration committee is to ensure appropriate executive remuneration design that promotes pay-for-performance and no rewards for failure. ¹⁸⁴ In general, Vermeulen et al ¹⁸⁵ perceive that corporate Boards are too focused on compliance and monitoring issues today instead of providing strategic leadership, which is a resource-loss for companies.

We propose that Boards may consider establishing a Strategy and Innovation Committee in order to provide balance vis a vis the other Board responsibilities and committees. Such a Committee could then be responsible for instituting a corporate-wide innovation strategy and its oversight. Such a Committee does not replace the Board in strategic contributions as every director can bring a 'resource-based' contribution to the Board. Many Boards are not inordinately large, ¹⁸⁶ and the Committee's role could be to coordinate the 'resource' profiles of all Board members, 187 while some focus on 'monitoring' type functions in relation to the audit or remuneration committees. Such a Committee would be different in composition from the Committees dedicated to value-protection, and could indeed comprise of a balanced slate of executive and non-executive directors committed to exploring the exploitation of innovation by the company. The Committee can also be positioned to develop an enterprise-wide strategy and investigate all levels of the firm in order to encourage and motivate innovation. Articulating the separate importance of 'strategy and innovation' which some may take for granted as an inherent Board task, can contribute towards reinstating the importance of 'entrepreneurial' leadership on the Board, a task which Vermeulen et al¹⁸⁸ critically opine has been left by the wayside in many companies.

We also propose that the Strategy and Innovation Committee could be responsible for developing stakeholder engagement and channels for representation or participation if this is warranted from a resource-based perspective. Where the network effects of stakeholders, reputational maintenance or matters of feedback by stakeholders are important to the company as 'resources', as discussed in Section B, the Committee could develop strategies for stakeholder engagement that may create new avenues of participation and/or accountability.

The incremental suggestions above add formalised and resource-based exceptions and features to existing corporate governance standards. They are not uncontroversial as investors can perceive a moderation of 'monitoring' emphases to be detrimental to their

¹⁸⁴ See Sections C and D, UYK Corporate Governance Code.

¹⁸⁵ Erik Vermeulen, Mark Fenwick and Masato Hisatake, 'Intelligent Cars Inc. - Governance Principles to Build a Disruptive Company' (2016) at http://ssrn.com/abstract=2823006.

¹⁸⁶ As large boards may function less well in decision-making and affect firm performance, see PM Guest, 'The Impact of Board Size on Firm Performance: Evidence from the UK' (2009) 15 European Journal of Finance 385. ¹⁸⁷ Allen Kaufman and Ernie Englander, 'A Team Production Model of Corporate Governance' (2005) 19

Academy of Management Executive 9.

188 Erik Vermeulen, Mark Fenwick and Masato Hisatake, 'Intelligent Cars Inc. - Governance Principles to Build a Disruptive Company' (2016) at http://ssrn.com/abstract=2823006.

interests, or stakeholder engagement to be a dilution of shareholder primacy. This article does not set out to present a perfect reconciliation, as Sections A and B have already explored the context of tensions and dilemmas between the shareholder-centred agency-based corporate governance standards favoured by investors and deviations from those standards for pro-innovation needs in companies. We believe that the proposed adjustments are ultimately moderations of existing standards that seek to mitigate the straitjacketing effects of prevailing corporate governance standards perceived by some companies in accessing or deploying resources to develop innovation. Prevailing corporate governance standards have developed such a strong leaning towards investor interests that some balance towards the other constituents in corporate governance may not be unwarranted.

Rethinking Corporate Governance Standardisation

In light of our approach of establishing principled exceptions to prevailing corporate governance standards, it is also worth taking a step back and critically questioning whether the movement of corporate governance standardisation in securities markets is optimal.

Standardisation in Corporate Governance Codes tends towards inflexibility over the long term. ¹⁸⁹ This may also apply to a regime of principled-exceptions to Code standards. In the contests between flexibility and predictability, between business and investors, compromises could be made in the development of Code standards as well as principles of exceptions, resulting in the proliferation of 'generally-accepted' positions that become inflexible and quasi-mandatory.

The factors that stimulate innovation discussed above, i.e. access to a range of resources, designing incentives for innovation to occur at all levels in a firm, and having a range of structures that would support innovation, are open-ended in nature and would likely benefit from less straitjacketing standards. Yablon¹⁹⁰ warns that the innovation mindset and ethos seek to explore the 'weird and wonderful' rather than the conventional. Hence it could be optimal for companies to be subject only to minimal governance practices so that their resource-based opportunities are not constrained. Excessive standardisation in corporate governance that is purported towards promoting innovation may ultimately achieve the antithesis of what is desired.

However, scaling back the development of corporate governance standards or codes is unlikely given the developments since the 1990s. The UK Corporate Governance Code has grown in volume and detail over each review, and some corporate governance practices have hardened into binding obligations. Since the establishment of the Cadbury Code of Corporate Governance in 1992, the Code has incorporated concerns of executive remuneration in 1995, 191 consolidated requirements of directorial independence after the

¹⁸⁹ Corporate Governance Codes tend to grow in volume and detail and ultimately minimise the original flexibility it was intended to provide. The UK Corporate Governance Code is an example in point.

¹⁹⁰ Charles Yablon, 'Innovation, the State and Private Enterprise: A Corporate Lawyer's Perspective' (2016) 40 Delaware Journal of Corporate Law 1017.

¹⁹¹ Richard Greenbury, Report: Directors' Remuneration (17 Jul 1995). In 1995 the governance issue in the spotlight was executive remuneration, as public outcry mounted against excessive executive remuneration in

Higgs Review of 2003,¹⁹² and strengthened the Board's monitoring role of executives, as well as shareholders' monitoring of Boards since the Walker Review after the global financial crisis 2007-9.¹⁹³ Binding obligations include the shareholder's advisory vote for executive remuneration packages introduced in 2002¹⁹⁴ now hardened into a 3-yearly binding vote.¹⁹⁵ In the US, corporate governance issues have also become increasingly addressed in securities regulation, from the mandatory requirements of internal control and audit committees in the Sarbanes-Oxley Act 2002¹⁹⁶ to the post-crisis Dodd-Frank Act 2010 which provides for the mandatory shareholder vote on executive remuneration.¹⁹⁷

In this context, we see the moderation of the compliance environment for corporate governance, and not a major overhaul or abolition, as the only possible and incremental step that addresses companies' pro-innovation needs. The freedoms that companies need to exploit innovative potential in their resources ultimately have to be balanced against the need for investor scrutiny and accountability. The development of 'principles of exceptions' to prevailing standards allows the resource-based theory of corporate governance to gain traction, by compelling companies to articulate and explain how the exceptions allow them to leverage upon their resources and meet innovation needs. This regime is less likely to undermine the established sense of trust that investors have in shareholder-centred agency-based corporate governance standards but goes one step further. The creation of resource-based exceptions to corporate governance compliance encourages investors to actively engage with corporate governance practices and their connection with corporate success. Investors should not just passively expect corporate compliance with prevailing standards. We see this proposal as being consistent with the 'stewardship' development in shareholder engagement with companies.

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privatised utilities companies, while staff reductions and pay restraint for staff took place in such companies. The Committee led by Sir Richard Greenbury to look into this issue produced a Report which recommended more robust guidelines for the structure and operation of independent remuneration committees on the Board, and also advocated greater shareholder engagement with remuneration issues. The Code was modestly amended in that light. See Ian W Jones and Michael G Pollitt, 'Who Influences Debates in Business Ethics? An Investigation into the Development of Corporate Governance in the UK Since 1990' (ESRC CBR Research Paper 2001).

¹⁹² Derek Higgs, Review on the Role and Effectiveness of Non-executive Directors (Jan 2003).

¹⁹³ David Walker, *Review of Corporate Governance in Banks and Financial Institutions* (Nov 2009). The global financial crisis triggered important reviews such as the Walker Review of Corporate Governance in Banks and Financial Institutions which fed into Code amendments in relation to directorial time commitment, the importance of the Chairman and the monitoring role of independent directors, and the importance of risk management oversight at Board level. See discussion in Marc T Moore, 'The Evolving Contours of the Board's Risk Management Function in UK Corporate Governance' (2010) 10 Journal of Corporate Law Studies 279.

¹⁹⁴ The UK Directors Remuneration Report Regulations 2002.

¹⁹⁵ Section 439A, UK Companies Act 2006.

¹⁹⁶ Eg sections 301, 302, Sarbanes-Oxley Act 2002. However see critique by Romano in relation to the increasing mandatorisarion of corporate governance rules in securities regulation, Roberta Romano, 'The Sarbanes-Oxley Act and the Making of Quack. Corporate Governance' (2005) 114 Yale Law Journal 1521. ¹⁹⁷ Section 951, Dodd-Frank Act 2010, implemented in Exchange Act Rule 14a-21(a) by the Securities and Exchange Commission.

The UK has pioneered a Stewardship Code since 2010,¹⁹⁸ in order to encourage investors to engage more deeply but constructively with their investee companies, so that their financial monitoring role can also bring about wider social benefits in terms of their sectoral monitoring. However, although 'stewardship' empowers and legitimises investors to engage with companies more intensely beyond the formal mechanisms in company law, such as at general meetings, it also requires investors to make adequate disclosure of their engagement and voting policies and demonstrate that their stewardship is for the overall benefit for the company as a whole.¹⁹⁹ As the investment sector is more prepared to dialogue with companies on their corporate governance in the 'stewardship' era,²⁰⁰ proposed that our approach of developing principles of exceptions for companies to meet their resource-based objectives in promoting innovation is timely for a maturing investment sector. Such a regime supports engaged capital markets where healthy levels of disclosure are compelled and supported by adequate levels of investor dialogue and engagement.²⁰¹

D. Conclusion

A company's pro-innovation needs are often met by the exploitation of its resources, widely defined. The resource-based theory of the firm provides immense empirical insights into how a firm's corporate governance factors can contribute to promoting innovation. These implications may however conflict with the prevailing standards of corporate governance imposed on many securities markets for listed companies, which have developed based on theoretical models supporting a shareholder-centred and agency-based theory of the firm. Although prevailing corporate governance standards can to an extent support firm innovation, tensions are created in some circumstances where companies pit their corporate governance compliance against resource-based needs that promote innovation. Such tensions have arisen in controversies surrounding listed companies that issue dual class stock that protect founder-members' innovative visions for the company, or in companies with influential controlling shareholders, or where stakeholders may be important for corporate success. We argue that what is at the heart of many of these controversies is a contest between a resource-based perspective of the firm that seeks to maximise innovation and enterprise opportunities as a collective endeavour, and the agency-based perspective pf the firm that seeks to mitigate the power of influential constituents such as directors or controlling shareholders in order to protect minority investors.

¹⁹⁸ Latest version as of 2012, at https://www.frc.org.uk/getattachment/d67933f9-ca38-4233-b603-3d24b2f62c5f/UK-Stewardship-Code-(September-2012).pdf.

¹⁹⁹ Principles 1, 2, 6 and 7 require companies to make disclosure of engagement, voting and conflicts of management policies. Principles 3, 4 and 5 set out the situations for optimal forms of shareholder engagement, from informal engagement to 'escalation' and collective engagement.

²⁰⁰ Such as the 'say on pay' Shareholder Spring observed in 2015.

²⁰¹ Not all signatories to the Stewardship Code demonstrate an optimal level of engagement and the Financial Reporting Council, gatekeeper of the Code has introduced a system of 'tiers' to differentiate investors demonstrating higher or lower levels of 'stewardship'. Investors are being empowered as more and more disclosure obligations are placed on companies, see Iris H-Y Chiu, "Shareholders as Stewards: Towards a New Conceptualisation of Corporate Governance" (2012) Brooklyn Journal of Corporate Commercial and Financial Law 387.

In the present context of steady internationalisation and convergence in corporate governance standards in global securities markets towards a shareholder-centred agency-based model, we argue that there is a need to provide some room for accommodating the resource-based needs for companies in relation to promoting innovation. These needs may require deviation from prevailing corporate governance standards, and we propose a structured, coherent and formalised regime for such exceptions to occur in a way that would be subject to adequate investor scrutiny and market governance. This incremental approach is likely to be more acceptable and constructive in today's securities markets and is able to advance the importance of the resource-based theory of the firm that promotes long-term success of the corporate sector.