***THE OXFORD HANDBOOK OF*  THE CORPORATION**

**May 2018**

**Thomas Clarke, Justin O’Brien and Charles R. T. O’Kelley**

**For**



**Lynn Stout**

**(1958-2018)**

**Distinguished Professor of Corporate and Business Law**

**Cornell Law School**

**CONTENTS**

1. **The Evolving Corporation: Economy, Law and Society**

Thomas Clarke and Justin O’Brien

1. **Genesis of the Corporation**
2. **The Dutch East India Company: The First Corporate Governance Debacle**

Paul Frentrop

1. **The English East India Company-State and the Modern Corporation: The Google of its Time?**

Philip J. Stern

1. **Socialising Capital: The Rise of the Industrial Corporation** William G. Roy
2. **Corporate Purposes and Accountability**
3. **From Berle to the Present: The Shifting Primacies of Corporation Theory**

Charles R. T. O’Kelley

1. **Understanding the Roots of Shareholder Primacy: The Meaning of Agency Theory, and the Conditions of its Contagion**

Olivier Weinstein

1. **Theories of the Firm**

1. **Corporate Purpose: Legal Interpretations and Empirical Evidence**Shelley Marshall and Ian Ramsay

1. **Corporate Law as a Solution to Team Production Problems**Margaret M. Blair

1. **Corporations as Sempiternal Legal Persons**

Lynn Stout

1. **Political Theory of the Corporation**
2. **Finance Capitalism, the Financised Corporation, and Countervailing Power** John W. Cioffi

1. **The Neoliberal Corporation** David Ciepley
2. **Theorizing the Corporation: Liberal, Confucian and Socialist Perspectives** Teemu Ruskola

1. **Strategies of Contemporary Corporation****s**
2. **Global Corporations and Global Value Chains:**

**The Disaggregation of Corporations ?**Thomas Clarke and Martijn Boersma

1. **Growth Strategies of the New Multinationals** Mauro F. Guillén and Esteban Garcia-Canal
2. **Diversity of Institutions and Corporations**

1. **Corporations, Organisation and Human Action: An Anthropological Critique of Agency Theory** Jean-François Chanlat

1. **The Japanese Corporation: Community, Purpose, and Strategy**Takaya Seki

1. **The Innovative Corporation**
2. **Dynamic Capabilities, the Multinational Corporation, and Capturing Co-created Value from Innovation**

Christos N. Pitelis and David J. Teece

1. **The Theory of Innovative Enterprise: Foundations of Economic Analysis** William Lazonick
2. **Corporations in the Clouds? The Transformation of the Corporation in an Era of Disruptive Innovations**

Danielle M. Logue

1. **The Responsible Corporation**

|  |
| --- |
| 1. **The Changing Nature of the Corporation and the Economic Theory of the Firm**
 |
|  Nicolai Foss and Stefan Linder |
|  |

**21.Corporate Responsibility and the Embedded Firm: A Critical Reappraisal**Cynthia A. Williams

1. **The Sustainable Corporation**

1. **The Greening of the Corporation**

Thomas Clarke

1. **Corporate Sustainability in a Fragile Planet**

Suzanne Benn and Melissa Edwards

|  |
| --- |
| 1. **The Future of the Corporation**
 |
|  |
|  |

1. **Transcending the Corporation: Social Enterprise, Cooperatives and Commons-Based Governance**

Bronwen Morgan,

1. **The Evolution of Corporate Form: From Shareholders’ Property to the Corporation as Commons**   Simon Deakin

**PREFACE**

This work has a long and distinguished genesis. Beginning with the definitive analysis of the continuing dilemmas of the corporate form evolving from the epochal book by Berle and Means *Modern Corporation and Private Property* (1932). The debate on the purpose of the corporation was continued by Edward Mason the Dean of the forerunner of the Harvard University Kennedy School, who noted in *The Corporation in Modern Society* (1959)“the rise of the large corporation and attending circumstances have confronted us with a long series of questions concerning rights and duties, privileges and immunities, responsibility and authority, that political and legal philosophy have not yet assimilated” (1959:19). Meanwhile there were a multiplying array of competing theoretical perspectives on the nature of the firm, the substantial works of authorities such as Schumpeter, Galbraith, Chandler and Penrose were rediscovered, and new more integrative theoretical approaches explored. The lineage of critical anthologies on the corporation continued with Carl Kaysen’s (1996) *The American Corporation Today: Examining the Questions of Power and Efficiency at the Century’s End.* Just as Berle and Means work reconceived the corporation for the 20th century, the aspiration of this *Oxford* *Handbook of the Corporation* is toredefine the roles and responsibilities of the corporation in its many forms in the 21st Century.

Many hands have contributed to this endeavour. The Adolfe A. Berle Centre on Corporations, Law and Society at Seattle University Law School has conducted a series of ten *Berle Symposia* focusing on transforming theories of the firm, capital markets, corporate law, governance and accountability commencing in 2010. From this series, conceptions of the future of the corporation and the possibilities of social enterprise have emerged. At the Centre for Law, Markets and Regulation at UNSW Sydney, Australia a parallel series of Symposia took place examining corporate structure and regulation, market conduct, prudential regulation and commercial law. At the Trust Project at Monash University, research on trust in corporations, corporate law and accountability has continued. The Centre for Corporate Governance at UTS Sydney conducted research on the changing roles and responsibilities of company boards and directors, the regulation of small corporations, and diversity and contingency in international comparative corporate governance, corporate governance and compounding inequlity, and most importantly, governance and sustainability.

We have engaged with, and learned from, wide networks of academics and practitioners interested in the changing nature of the corporation. This engagement began with the Royal Society of Arts’ *Tomorrows Company* Inquiry (1992-1995), investigating the sources of sustainabile business success with a network of 25 international corporations (Clarke and Monkhouse 1994). This research contributed to the thinking of the *Modern Company Law* Review(1998-2001)*,* that considered shareholder primacy and stakeholder orientations of the corporation, resulting in the new Section 172 of the UK *Companies Act* 2006, which outlines the wider responsibilities of company directors. On an international scale the interest in responsible investment in corporations for the long term was developed through the International Corporate Governance Network (ICGN) body of large global institutional investors. In the United States Bill Lazonick has worked assiduously to secure wider public recognition of the impact of shareholder primacy on the investment horizons of corporations, including in research with the Institute for New Economic Thinking on the impact of share buy backs and dividend payments on long term investment in business innovation. The *Critical Corporation Project* (2012-2018) at the Cass Business School at City University has investigated the contemporary corporation from a critical perspective, and the Frank Bold international law firm is conducting *The Purpose of the Corporation* Project. Most recently, the British Academy *Future of the Corporation* (2018-2020) project seeks to examine the contemporary purpose of corporations, and redefine law and regulation to enable a new model of business with wider purposes and accomplishments (Mayer 2013).

Of all the many friends and companions that have accompanied us in this search for more accountable and responsible business corporations, none has proved more resolute than Professor Lynn Stout of Cornell University Law School. Lynn’s work on team production theory with Margaret Blair of Vanderbilt University (1999) has inspired a generation of colleagues. Lynn was brilliant, fearless and intellectually formidable. She contributed a chapter to this *Oxford Handbook of the Corporation,* but did not live to see it published, and we respectfully dedicate this work to her memory.

Thomas Clarke

Justin O’Brien

Charles R. T. O’Kelley

Berle, A.A. and Means, G.C (1932) *Modern Corporation and Private Property,* Transaction Publishers

Blair, M.M and Stout, L. (1999) A Team Production Theory of Corporate Law, *Virginia Law Review,* 85, 2, 247-328

Clarke, T. and Monkhouse, E. (1994) *Rethinking the Company,* Financial Times Pitman

Company Law Review Steering Group (2001) *Modern Company Law For A Competive Economy,* Final Report, Great Britain Department of Trade and Industry

Kaysen, C. (1996) *The American Corporation Today: Examining the Questions of Power and Efficiency at the Century’s End,* Oxford University Press

Mason, E. (1959) *The Corporation in Modern Society,* Harvard University Press

Mayer, C. (2013) *Firm Commitment,* Oxford University Press

UK Government (2006) *Companies Act 2006,* legislation.gov.uk

**CONTRIBUTORS**

**Suzanne Benn,** UTS Business School, University of Technology Sydney

**Margaret M. Blair,** Milton R. Underwood Chair in Free Enterprise, Vanderbilt Law School, Vanderbilt University

**Martijn Boersma,** UTS Business School, University of Technology Sydney

**David Ciepley,** University of Denver and School of Social Science, The Institute for Advanced Study, Princeton

**John Cioffi,** University of California, Riverside

**Jean-Francois Chanlat,** Dauphine University, University of Paris

**Thomas Clarke,** UTS Business School, University of Technology Sydney

**Simon Deakin,** Director of the Centre for Business Resarch, Faculty of Law, University of Cambridge

**Melissa Edwards,** UTS Business School,University of Technology Sydney

**Nicolai Foss,** The Rodolfo de Benedetti Professor of Entrepreneurship at the Bocconi University, Italy

**Paul Frentrop,** Nyenrode Business School, Netherlands

**Esteban Garcia-Canal,** Director of IUDE Business School,University of Oviedo, Spain

**Mauro F. Guillen,** Director of the Joseph H. Lauder Institute, Wharton Business School, University of Pennsylvania

**William Lazonick,** Director oftheCenter for Industrial Competitiveness, University of Massachusetts,President of The Academic-Industry Research Network

**Stefan Linder,** Essec Business School, Paris

**Danielle Logue,** UTS Business School, University of Technology Sydney

**Shelley Marshall,** Monash University

**Bronwen Morgan,** UNSW Law School,University of New South Wales

**Justin O’Brien,** Australian Centre for Financial Studies,Monash University

**Charles R. T. O’Kelley,** Director, Adolf A. Berle, Jr. Center on Corporations, Law and Society, Seattle University School of Law.

**Christos Pitelis,** Brunel Business School**,** Brunel University and Queens College, Universit of Cambridge

**Ian Ramsay,** Director of Centre for Commercial Law and Secutrities Regulation,Melbourne Law School andUniversity of Melbourne

**W.G. Roy,** University of California, Los Angeles

**Teemu Ruskola,** Emory University

**David Teece,** Director, [Tusher Center](http://businessinnovation.berkeley.edu/intellectual-capital/tusher-center/) for The Management of Intellectual Capital, Haas Business School**,** University of California, Berkeley

**Takaya Seki,** University of Meiji, Japan

**Philip Stern,** Duke University

**Lynn Stout,** Cornell Law School,Cornell University

**Olivier Weinstein,** University Paris 13, Sorbonne Paris Cité

 **Cynthia A. Williams,** Osborne Hall Law School, York University, Canada

**CHAPTER ONE**

**The Evolving Corporation, Economy, Law and Society**

**Thomas Clarke and Justin O’Brien**

**Introduction**

The primary objective of this *Handbook of the Corporation* is to contribute to the contemporary development of the theory and practice of the corporation. Continuously evolving, the corporation as the primary instrument for wealth generation in contemporary economies, demands frequent assessment and reinterpretation. The corporation is a remarkably adaptive mechanism for stimulating innovation, production and capital investment in many different societies and under many different political systems. The focus of this work is the transformative impact of innovation and change upon corporate structure, purpose and operation. Corporate innovation is at the heart of the value creation process in increasingly internationalised and competitive market economies, as Aoki (2010) suggests, “Corporations are undoubtedly one of the most important societal devices that human beings have ever invented.”

Yet the direction and effectiveness of corporate law, corporate governance and corporate performance are being challenged as never before. In questioning its fundamental purpose and performance this work is informed by the methods and influence of Berle and Means (1932) and Christopher Mason (1959). What is the corporation and what is it becoming? How do we define its form and purpose and how are these changing? To whom is the corporation responsible and to whom accountable among transient and competing interests? Who judges or should judge the ultimate performance of corporations and by what measures?

This questioning of the purpose and performance of the corporation is a global phenomenon, and applies across all industry sectors from technology to finance, resources extraction to manufacturing. As the UK government recently acknowledged: “...For people to retain faith in capitalism and free markets, big business must earn and keep the trust and confidence of their customers, employees and the wider public. For many ordinary working people – who work hard and have paid into the system all their lives - it’s not always clear that business is playing by the same rules as they are. And when individual businesses lose the confidence of the public, faith in the business community as a whole diminishes – to the detriment of all. It is clear that in recent years, the behaviour of a limited few has damaged the reputation of the many. It is clear that something has to change (BEIS, 2016, 2).”

In other jurisdictions similar public concerns on the responsibility of corporations can be seen for example in debates on the environment and emissions, and tax base erosion and profit shifting. There is a need to navigate the role snd responsibilities of the corporation in an age of global markets, the reprise of mercantilism and the fraying of the international order (Niblett2017). Specifically, we need to map how the intersection of law and regulation impacts on corporate purpose at the national and international level. Critical issues presently include tax base erosion and profit shifting, bribery and corruption, the impact of the fossil fuel industries on climate change, and the continuing extension of the social licence to operate in the finance sector, linking sectoral analysis to the defining policy questions of the day. There is a need for a richer theoretical account of the corporation, to inform and influence the trajectory of public debate on the design and development of innovative, accountable and sustainable corporations.

The challenge of the corporation laid down by Berle, one of the most influential theorists of the corporation, remains unanswered:

“A commercial instrument of formidable effectiveness, feared because of its power, hated because of the excesses with which that power was used, suspect because of the extent of its political manipulations within the political State, admired because of its capacity to get things done. From the turn of the twentieth century to the present, nevertheless, its position as a major method of business organisation has been assured. Although it was abused, no substitute form of organisation was found. The problem was to make it a restrained, mature and socially useful instrument” (Berle 1959, x).

The corporation remains one of the most significant if contested innovations in human history (Coase 1937; Schumpeter 1942; Polyani 1941). “It is not exaggeration to suggest that, with the possible exception of political democracy, the corporation has contributed more to human welfare than any other Western institution” (Stout, this volume). The scale and influence of global corporations continues to expand, even as their composition, structure and operations are transformed. The largest international corporations have much greater economic clout than most countries in the world: if companies’ revenues and selected emerging markets GDPs are compared, the leading corporations are much richer than most countries. The economies of most developing countries are diminutive compared to the revenues and assets of the largest international corporations (Figure 1.1). If we compare government total revenues with corporate turnover, of the world’s largest 100 economies 31 are countries and 69 are corporations, (World Bank 2016). And, of course, there are a lot more corporations, with perhaps two hundred viable countries in the world, and several thousand large international corporations.

**Figure 1.1 Selected International Companies Revenues and Selected Emerging Economies GDPs (2017)**



Sources: World Bank (2018) <http://www.worldbank.org/en/country/ghana/overview#1>

International Monetary Fund (2018) <http://www.imf.org/external/pubs/ft/weo/2017/02/weodata/index.aspx>

The corporation still potentially has a unique capacity for advancing the institutions of innovation, production and investment in building economies and societies (Galbraith 1957; Micklewhait and Wooldridge 2003). Unresolved, however, are the existential normative questions of purpose and control: “The rise of the large corporation and attending circumstances have confronted us with a long series of questions concerning rights and duties, privileges and immunities, responsibility and authority, that political and legal philosophy have not yet assimilated” (Mason 1959, 19).

Meanwhile the dynamics of globalisation, regulatory arbitrage, taxation of ephemeral entities, mercantile impulses and inter-connected financial markets have further complicated questions of responsibility, competition and sustainability. In tracing how and why this has occurred and placing it in the context of the existential conflicts facing the liberal international order, this analysis of the corporation has national and global significance, for example in inquiring whether the development of a *social licence to operate* can provide a more accountable framework for the finance sector, or industry can commit to zero carbon emissions.

**Corporate Purpose and Performance**

The definition of corporate purpose and performance has evolved through a succession of paradigmatic shifts in the last century. Berle and Means proposed a collective and collaborative theorization (Weinstein 2012). Their recognition of the shift from owner-entrepreneurs to the professional managers of the modern corporation defined the debate for the next fifty years, with the remarkable contributions of Galbraith (1957) and Chandler (1977) on the nature of the new industrial state and the managerial revolution during the expansionary years of post-war recovery. In the more troubled economic times of the closing decades of the 20th century Jensen and Meckling (1976) inspired a narrower theorisation that was individualistic and contractual in agency theory and shareholder value, augmenting an ideational shift from the communitarian impulses of Schumpeter (1942) and Polyani (1944) to the individual rights and freedom to contract approach favoured by Hayek (1942). This meta-framing informed both the possibilities and limitations of corporate purpose and control with team production theory offering a rationale and justification for voluntary restraint (Alchian and Demsetz 1972).

The reformulation of team production theory more recently by Blair and Stout (1999) elucidates the increasing complexity of the business enterprise, and the role of the board of directors as a mediating hierarch to secure a balance of interests among different stakeholders. Compared to the stark and binary assumptions of agency theory, Blair and Stout’s team production theory conceives of the expansiveness of corporate purpose, and the extensive demands upon boards of directors and managers in defining and securing performance. These broader conceptions of corporate purpose and performance were to a degree embedded in European corporation, but had become marginalized in the Anglo-American corporation (Clarke and Chanlat 2012; Clarke 2017). At a practical level, this has informed broader discussions of corporate purpose, corporate governance and directors’ duties more recently in the UK (for example the *Modern Company Law* Steering Group 2000). This review resulted in section 172 of the UK *Companies Act 2006,* which the Labour government claimed “marks a radical departure in articulating the connection between what is good for a company and what is good for society at large” (Hodge 2007). However, the practical results of the new legislation have proved modest (Clarke 2016; Keay 2010).

The impact of the global financial crisis, in many countries across the liberal international order involving a social and political crisis as well as an economic one, suggests much more attention must be placed on the duties and responsibilities of the corporation, not least because innovative tax strategies and regulatory arbitrage continuously erode the fiscal capacity of nation states to fulfil their most basic responsibilities to the public. In particular the leading financial institutions protected existence under a *too big to fail* regime of government support, while the same corporations fail to recognize their fiscal and other duties as corporate citizens cannot continue. The reassessment of corporate purpose must take into account how and why regulatory frameworks are developed and the impact of these approaches on political possibility and corporate purpose.

**Developing and Renewing the Intellectual Legacy of Berle and Means**

A fundamental reconceiving and reconfiguration of the corporation was at the heart of the definitive work of Berle and Means early in the 20th century which continued through to the Kennedy administration. *The Modern Corporation and Private Property* (1932) has become one of the most cited, if misunderstood, critiques of corporate power and purpose. The roots of the misunderstanding go back to the rise of managerial capitalism, a fact acknowledged by Berle in an equally once influential, but since forgotten volume, *The Corporation in Modern Society* (1959). This 1959 collection derives from a symposium led by Professor Edward Mason (then dean of the forerunner of the Kennedy School of Government), at a time when US corporations were internationally dominant. For Mason (1959, 1) “to suggest a drastic change in the scope or character of corporate activity is to suggest a drastic alteration in the structure of society...All of this is to suggest not that the corporation cannot be touched but that to touch the corporation deeply is to touch much else beside.” The lineage of critical anthologies on the corporation continued with Carl Kaysen’s (1996) *The American Corporation Today: Examining the Questions of Power and Efficiency at the Century’s End*. The Global Financial Crisis, the rise of state capitalism and its impact on capital markets, and the management of imminent crises such as climate change demand a more substantial account than a defeatist return to the politics of mercantilism.

A core rationale of this *Handbook* is to review and question how the debates on the corporation have evolved from Berle and Means (1932) onwards to the present day. To examine the relevance of Berle and Mean’s insights to contemporary corporate dilemmas. However, the analysis must be set in a totally different context. Berle and Means were writing about American corporations that were becoming increasingly dominant in the US economy. It is now a different world. Contemporary multinationals have been transformed by globalisation and digital technology to become more complex and virtual organisations. De-regulation, increasing international competition, the impact of interconnected financial markets, increasing demands for responsibility and sustainability, and the precipitous rise of the Asian economies has transformed the existence and identity of corporations. Just as The *Modern Corporation and Private Property* (1932) reconceived the corporation for the 20th century, the aim of this *Handbook* is to help to redefine the roles and responsibilities of the corporation the 21st Century.

**Corporate Responsibility and Sustainability**

The corporate responsibility and sustainability movement has developed extensively over recent decades, with many interpretations and applications (Matten and Crane 2005; Crane et al 2008; Crane et al 2014; Clarke 2017). Sophisticated corporate social responsibility and sustainability policies are projected by many leading international corporations and detailed reporting on responsible performance is becoming almost universal. However, the question remains whether this renewed commitment to corporate responsibility and sustainability has in any way changed fundamental business models, operations and profit imperatives? Integrating corporate social and environmental responsibility into all significant corporate decisions and activities is some way from being recognized as an essential and inescapable duty of boards of directors and executives (Barker er al 2016; Clarke 2016; Klettner et al 2013).

Studies dealing with corporate responsibility come from a wide range of perspectives and cover a broad spectrum of issues. For example, accounting scholars tend to look at theories of non-financial reporting and auditing issues (Gray et al. 1995; Berthelot et al. 2003; Nitkin and Brooks 1998). Lawyers tend to look at the scope of directors’ duties and regulatory mechanisms (Redmond 2012; McBarnet et al. 2007; Gill 2008) whereas management scholars examine organisational theories (Benn 2012; Matten and Crane 2005; McWilliams and Siegel 2001; Garriga and Mele 2004). These studies can come from a background of concern for the environment (Halme and Huse 1997; Russo and Harrison 2005; Jose and Lee 2007), social justice (Aguilera et al. 2007; Deakin and Whittaker 2007) or economic success (McWilliams and Siegel 2000; Orlitzky et al. 2003; Visser 2011; Porter and Kramer 2011).

The externalities associated with phenomena such as climate change have a profound impact on the corporate bottom line and regulatory thinking (Baker 2011; APRA 2017). In other words, directors need to incorporate environmental and social responsibility into their decision making as part of a balanced assessment of the risks and opportunities facing the company. The re-evaluation of fiduciary duty has potentially profound implications for the theory and practice of the corporation. The integration of environmental, social and governance consideration into investment decisions is a continually evolving process conditional on the nature of external threats and corporate and political ability and willingness to address them. Ultimately only a fundamental redesign of corporate forms, objectives and value measures can fully meet the emerging realities of corporate responsibility.

**Contributing Towards a New Theory of the Firm**

The integration of the analysis across corporate purpose, corporate performance, corporate responsibility and sustainability, corporate reporting and corporate law and regulationin this *Handbook* allows the development of a more comprehensive and nuanced conception of the corporation. This illuminates the two main theoretical approaches to the corporation and its governance.The first canvasses communitarian approaches with conceptions of the corporation as a social institution involving citizenship, participation and legitimacy (Parkinson 2003)*.* Within this conception, the corporation has responsibilities to protect social welfare as well as rights (see Greenfield, 2006; Ireland 2000; Sen, 2009), and the normative assumptions that underpin the Mason (1959) analysis that company directors have a multi-fiduciary duty to safeguard and balance all interests that have a legitimate claim on the business*.*

The alternative approach privileges a law and economics framework, which emphasizes a freedom to contract model. The critical distinction is that this paradigm leaves it to the corporation to decide what constitutes the optimal balance between narrow self-interest and societal obligation.Contractual approaches to governance have dominated the field of corporate governance in law and finance for some decades (Alchian and Demsetz 1972)*.* Yet the ideational triumph of the Coasian (1937) conception of the corporation as nothing more than a ‘*nexus of contracts’* (Jensen and Meckling, 1976) has been demonstrated to be simply that. Maximizing shareholder value, for example, has been increasingly demonstrated as a relatively hollow construct (Stout, 2012; Greenfield 2009; Mason 2015). The contract approach claims a logical and technocratic lineage in contrast to the claimed normative foundations of the social institution conception of the corporation which looks to regulatory intervention, however the non-intervention in the internal governance of the firm of the contract approach itself privileges the normative stance of freedom to contract, a fact recognized by its intellectual architects (Hayek 1943:29)

Much of this analysis presupposes the dominance of Western, particularly Anglo-Saxon conceptions of the corporation.But the scale of the global financial crisis and its continuing residual impact, together with the challenges associated with the rise of state capitalism forces in large parts of the globe, require a re-conceptualization of the corporation. This, in turn, necessitates a revisiting of its contemporary rationale.Vigorous debates are occurring internationally concerning the fundamentals of the governance and direction of corporations including for example the relevance of principal/principal rather than principal/agent problems in the Asian business context (Young et al 2008; Peng and Sauerwald 2013); the enduring significance of the stakeholder theory of the firm (Donaldson and Lee1995; Phillips and Freeman 2010); and a multiplying array of contemporary competing theoretical perspectives on the nature of the firm (Williams and Zumbansen 2011; Crouch and Maclean 2011).

Significant recent contributions to this debate on the future purpose and direction of the corporation in the UK include Mayer’s call for the corporation to be reconceived as a means of commitment to the promotion of the interests of its customers and communities as well as enhancing the wealth of its investors (2013; 2017), echoed in the deliberations of the UK Parliamentary Committee on corporate governance which expressed strong concerns about the short termism of companies, and the worrying lack of trust in business of the general public (BEISC 2017). Similarly, in the United States the implementation of the extensive legislation of the Dodd Frank *Wall Street Reform and Consumer Protection Act,* that continued long after the Act was formally passed by the Obama administration in 2010, as different clauses and rules were interpreted, was designed to ensure that the interests of too-big-to-fail banks could not overwhelm the interests of main street. While this resonated with the general public, the U.S. financial institutions continuously have sought every means at their disposal to limit Dodd-Frank’s impact (O’Brien and Gilligan 2013). The intensifying inequality in the United States, in which corporations are the engine, was condemned by Reich (2016) who called for a reinvention of the corporation, and acknowledged as unacceptable by the U.S. Federal Reserve:

 “The past several decades have seen the most sustained rise in inequality since the 19th century after more than 40 years of narrowing inequality following the Great Depression. By some estimates, income and wealth inequality are near their highest levels in the past 100 years, much higher than the average during that time span and probably higher than for much of American history before then. It is no secret that the past few decades of widening inequality can be summed up as significant income and wealth gains for those at the very top and stagnant living standards for the majority. I think it is appropriate to ask whether this trend is compatible with values rooted in our nation’s history” (Yellen 2014:1).

In contrast, within the continental European tradition large companies are still regarded as partially public bodies, with responsibilities and constituencies that extend beyond the shareholders to include other groups, such as the employees and local communities; though in recent times this belief has been subject to some erosion, as increasingly European companies have been subject to the disciplines of the capital market (Parkinson 2003; Clarke and Chanlat 2010). Among extensive intellectual contributions to the discussion on the future direction of the corporation in Europe are included the work of Biondi, and the purposes of the corporation campaign of law firm Frank Bold and the Cass Business School. Reflecting the deeper European view of the purposes of the corporation Biondi (2013; Biondi et al 2007) characterises the corporation as a complex dynamic system generating wealth related to individual and social needs, in contrast to the shallow nexus of market prices view of the firm populated by neo-classical economics. The law firm Frank Bold has asked fundamental questions about the purpose of corporations, the largest 500 of which they suggest control about 70 per cent of world trade yet are often increasingly trapped into a narrow focus on short-term returns by the insistent pressure to maximise shareholder value. They call for a revisioning of the corporation to reflect a broader societal purpose and environmental responsibility and examine future scenarios of the sustainable corporation (Morrow et al 2016; Frank Bold 2016; Veldman and Willmott 2013). In a similar vein Baars and Spicer (2017) ask profound questions about the existence and purpose of the corporation “A handful of large corporations dominate most key global markets. Corporations – and their extended value chains - are an important source of employment. Governments rely on corporations – directly and indirectly – for tax revenues, expertise, and economic development” and yet with the constant transformation and reconfiguring of corporations, most recently through information and communications technologies, and through financialisation, “The central challenge for understanding corporations today involves trying to comprehend how they are simultaneously all-powerful and evanescent” (Baars and Spicer 2017:1,10)

What is required is to add clarity and coherence to the theory of the firm to inform the analysis and recalibration of the purpose and performance of the corporation, and to reconceive corporate governance, policy development and responsive regulation. The contributions to the *Handbook* are intended to provide this informed analysis of the contemporary corporation and its future.

**THE APPROACH OF THIS HANDBOOK**

**The Genesis of the Corporation**

The origins of the corporation offer many insights into its dynamism and potential: a vehicle that offers unprecedented opportunities for entrepreneurship while encapsulating all of the risks that this involves. In the first chapter in the *Handbook* Paul Frentrop illustrates in fine detail the birth of the corporate enterprise, which occurred in the bloody trade of the Portuguese, English and Dutch in the East Indies. He analyses the experience of the Dutch East India Company, the first company in which thousands of investors participated. This dispersed shareholder base gave rise to two new institutional developments: the spontaneous growth of a lively securities market, and agency-problems as investors soon had reason to complain about lack of strategic focus, lack of dividends, lack of accountability, self-enrichment by managers, fraud and mismanagement. Nonetheless after two hazardous first decades – helped by the exit that the stock market provided to investors - the Dutch East India company managed to stay in existence for almost two centuries although the agency-problems were only partially addressed. Frentrop demonstrates clearly a continuous inter-twining of commercial, military and political interests in the competing efforts of the Dutch, English, Portuguese and Spanish companies to conquer access to the rich spices and minerals of the East Indies, which prefigures the troubled involvement of multi-national corporations in the 20th century with the regimes of the developing world. Meanwhile the interests of the shareholders were systemically neglected.

This is followed by Philip Stern’s analysis of the rival English East India Company in the seventeenth and eighteenth centuries. The focus is upon the corporation in the British Empire, early modern economic thought, the history of companies and colonization, and approaches to the problem of colonial sovereignty. The implications for the understanding of the modern international corporation are then considered. Stern seeks to evaluate the claims that the English East India Company sired the modern corporation, and that there are lessons to derived from its history. His historiographical analysis examines the tendency to search for answers in the East India Company’s history, as it developed and evolved over time, as a bell-weather of the concerns and anxieties regarding the role of the corporation.

While often considered a harbinger of modern global capitalist organisation, for other historians, including Adam Smith, the East India Company was the exemplar of capitalism’s antecedent and antithesis – monopolism, protectionism and mercantilism. Indeed, the founding elements of the modern corporation were only established in England such as limited liability, freely tradeable shares, administrative rather than political processes of incorporation, and divorce of incorporation from exclusive or monopoly rights, only came about with the reforms of the mid-19th century, as the hegemony of the East India Company was in decline.

The demise of the East India Company was associated with the rapid proliferation of joint stock companies and other hybrid forms early in the 19th century “saturating Victorian Britain, its culture, and its Empire with corporations.” The reach of British commercial interests grew further during this period with plantations, banking and transportation that stretch across much of the world. The East India Company for Stern is a reminder of the historicity and contingency of any assumed distinction between the public and private. As in the modern transnational conglomerate ascendant today which can amount to private empires, compliant regimes, global footprints, and sovereign CEOs. How such corporations may be effectively subjected to international law, though the subject of considerable policy and international institutional development, is yet to be resolved.

In the following chapter William G. Roy reviews the history of how the modern industrial corporation developed as a form of socialized property and enumerates some of the important consequences of those developments. The empirical focus is the corporate revolution of the late 19th and early twentieth centuries when the large publicly traded corporation became the dominant form of enterprise. The main point is that the socialization of property originated in the corporation when it was an extension of state power, and over time retained its social character, while shedding its accountability to the public. The corporate form of property was originally conceived as an extension of state power, but once privatised became a haven from government. What had been a set of privileges (perpetual existence, limited liability etc) designed for specific companies, was increasingly replaced by general incorporation laws that allowed any business enterprise to incorporate, regardless of direct public benefit, though most of the privileges justified on the basis of public interest remained.

At the beginning financial institutions had little equity stake in industrial corporations, but in the 20th century a merger of finance and industrial capital occurred in large corporations that developed a greater and more continuous need for finance capital. Over time finance played a more determining role in the fortunes of industry. Before industrial capital changed hands slowly and personalised around families and individuals. After the transformation of finance and industrial capital, finance capital “became a fungible commodity, sold in the market, changing hands quickly, impersonalised around financial institutions” and was socialised for a different purpose. This was the dawn of a new era of the financialization of the corporation associated with a dramatic rise in the profits attributed to finance, and the reorientation of other manufacturing and service industries towards financial activities. Corporations became deflected from the service of the consumer to service of the financial markets.

**Corporate Purpose and Accountability**

Charles O’Kelley traces in the next chapter the evolution of the corporation through different eras of the past century, with a focus upon the development of competing primacies of corporate law. Successive eras of managerialism, technocracy, and shareholder primacy are examined in the Darwinian struggle for corporate power and business success. The foundations of different theories of the firm are examined by O’Kelley, who argues the importance of these theoretical frameworks in determining the direction and responsibilities exercised by corporations. Berle and Means championed a new commitment to a greater social responsibility led by managers who accepted the need for wider accountability. This formed one of the cornerstones of Roosevelt’s New Deal, and in the post-war reconstruction of the economy, Galbraith (1952; Chandler 1977) and others celebrated the arrival of a new industrial state with a leadership techno-structure of committed managers. The goals of this techno-structure for the firms they led were broad and deep, including the success of the corporation, maintaining financial independence, and technological virtuosity. This techno-structure and associated benefits of the New Deal were stripped away in the corrosive markets of the 1970s and 1980s with increasing international competition and more aggressive financial institutions. Securing the commitment of business executives to the shareholder primacy mantra was readily achieved with the universal adoption in US large corporations of executive stock options: “Almost overnight, pecuniary interest became the primary motivating force in the operation of the modern corporation.” The scene was set for the hegemony of shareholder value to infuse the direction of the corporation, and the financial, legal and political institutions that impacted on the corporation.

The origins of the doctrine of shareholder primacy, in the inversion of the ideals of Berle and Means by the financial economists who developed agency theory, are examined by Olivier Weinstein, an emerging collective conception of the corporation was conveyed in the early work of Berle and Means (1932), who identified the collective nature of the corporate entity, the importance of managing multi-dimensional relationships and the increasing accountability of the corporate entity with profound obligations to the wider community. Paradoxically, Berle and Means left an ambiguous legacy (Cioffi 2011) that was subsequently interpreted in two alternative and sharply contrasting theoretical approaches, one collective and collaborative, the other individualistic and contractual (Weinstein, 2012). Throughout much of the 20th century the large modern enterprise was represented as a social institution, an organization formed through collective action and technological advance (Galbraith, 1952, 1967; Chandler, 1977). Chandler is identified with the conception of the large corporation as an integrated, unified, collective entity that could not possibly be reduced to the sum of individuals it comprises.

This was the era of Galbraith’s *The New Industrial State* (1967) in which corporate growth and brand prestige appeared to displace profit maximization as the goal of technocratic managers (Henwood 1998: 259). In a technocratic milieu, the shareholder was rendered “passive and functionless, remarkable only in his capacity to share without effort or appreciable risk, the gains from growth by which the technostructure measures its success” (Galbraith 1967: 356). This Galbraithian idyll was disintegrating by the time of the severe recession of the early 1970s, with the incapacity of US corporations to compete effectively with Japanese and European products in important consumer market sectors, accompanied by a push by Wall Street towards conglomerate formation, in the interests of managing multiple businesses by financial performance.

As Weinstein insists agency theory was a reply to those who have presented the large modern firm as establishing the predominance of an economic coordination based on organization and planning, completely different to the market (Coase 1937; Galbraith 1967). The contractualist view of the firm opposed this approach, reaffirming the primacy of the market, drawing on conceptions that take private property, contractual freedom and the free market as the founding principles of a new social order. As Weinstein maintains this re-privatization of the corporation was powerfully supported by the recasting of neoclassical microeconomics that accompanies the affirmation of neoliberal thought from the late 1960s. In reality, the corporation needs to be analyzed as a multidimensional institution, embedded in an institutional and political system, with a deeper and more expansive set of objectives than simply conforming to the immediate demands of the financial markets.

The issues raised by Berle and Means regarding the purposes of the corporation and the means of ensuring the accountability of the exercise of corporate power for the public good continue to the present day. Marshall and Ramsay consider the contemporary role of corporate law and directors’ duties in enforcing this accountability. They find in their empirical research that a substantial minority of companies do not publicly identify their business objective as being “to give priority to the interests of shareholders”. This can be compared to the legal interpretation of the duty imposed on directors to act in the best interests of the company with the interests of the company typically being taken by courts to be the interests of shareholders. They highlight an inconsistency between what courts are saying should be the priority of directors when they make decisions, and what many companies themselves are actually saying in their business objectives. Just over half of the directors they surveyed believed that acting in the best interests of the company meant they are required to balance the interests of all stakeholders. Directors are already balancing the interests of stakeholders and they are not looking to formal rules to guide them in this process. They are guided by business imperatives to achieve the success of the company and other considerations.

**Theories of the Firm**

There are many divergent theoretical explanations of the firm, however there three theories have predominated: the shareholder primacy approach of agency theory, the nexus of contracts approach, and the conceptions of the company as a social institution approach. Continuing the analysis of the evident weaknesses in the shareholder primacy approach and the viability of alternative explanations of the functioning of corporations, Margaret Blair in the following chapter explains the team production problem as described in economic theory, and present the argument, first developed in Blair and Stout (1999), that boards of directors fit the description in the economics literature of a key solution to the team production problem. She reviews the legal structure and duties of boards of directors under corporate law to show that directors are called upon to make many of the most conflict-laden decisions that must be made in corporations. Thus, many of the details of corporate law are consistent with the idea that a primary function of boards of directors is to mediate among important competing interests in the corporation, and thereby resolve or head off disputes. Blair explains the essence of team production theory is that the assets are owned by the corporation itself, which is its own distinct legal entity, formed for the specific purpose of holding the assets used jointly by the team. This is why corporate law gives boards of directors’ total authority over corporations.

This is a practical approach that allows the board of directors to find solutions that allow the board to go forward, and in no statute is the board required to always select the solution which makes the shareholders happiest. Boards of Directors are further protected by the business judgment rule to act in their interpretation of the long-run interests of the corporation. As Blair insists “throughout most of the 20th century, many directors believed they were supposed to make decisions by balancing the competing interests in corporations..” and “..this continued to be a mainstream idea well into the 1980s.” Yet this view began to be abandoned in the early 1980s under the pressure for shareholder value, which may have yielded benefits to shareholders in the short term, but arguably has damaged the longer-term prospects of many corporations, and indeed shareholders as a body themselves.

 Lynn Stout in the next chapter develops the analysis arguing the power and importance of the corporate form essentially arises from allowing individuals to invest collectively, enabling corporations to create huge pools of private capital that make enormous projects feasible, including the infrastructure, utilities and technology which laid the basis for the industrialism and prosperity of the 20th century. This is achieved through two principal means, firstly *asset lock in*: asset lock-in permits both non-profit and for-profit corporations to pursue large-scale, long-term, uncertain projects with reasonable assurance that the enterprise will not be disrupted by the death, withdrawal, or bankruptcy of any of its donors or shareholders. Asset lock in also serves the purpose of reducing the risk of corporate disruption, reassuring important corporate stakeholders like creditors, customers and employees that the corporation is more likely to survive. This reassurance encourages stakeholders to make their own firm-specific corporate “investments” as commitments to the future.

Secondly the corporation offers *perpetual existence* which Stout describes as one of the most curious and unique characteristics of corporate entities: a perpetual corporate entity’s capacity to accumulate and lock in assets can have weighty consequences not only for its current shareholders and stakeholders, but for multiple future generations of shareholders and stakeholders as well. Stout concludes that these essential functions of the corporation are now systemically threatened: “Contemporary Anglo-American discussions of corporate governance typically adopt a shareholder primacy perspective that fails to recognize that empowering short-term shareholders and encouraging directors and executives to focus on immediate shareholder returns, makes it difficult for corporate entities to lock in resources. And, when stock markets are less than perfectly fundamental-value efficient, the unfortunate result is to discourage large publicly traded corporations from pursuing exactly the sorts of long-term, large-scale, uncertain projects they are otherwise ideally suited to pursue.”

**Political Theory of the Corporation**

How corporations were dislodged from their commitments to the wider community is considered in the chapter by John Cioffi. The classic analysis by John Kenneth Galbraith’s *American Capitalism: The Concept of Countervailing Power* articulated a theory of post-war liberalism characterized by a rough balance among opposing organized economic interests within the political economy. This theory of countervailing power offered a way to harmonize post-New Deal and post-war industrial capitalism with the ideological and institutional features of political pluralism and free enterprise. Countervailing power ostensibly reconciled free enterprise, democracy, the regulatory state created by the New Deal, Keynesian economics and fiscal policy—but only during an exceptional historical period that attenuated the tensions among them. Once these conditions abated, the ostensibly spontaneous and voluntary formation of organized interest groups and forms of economic organization no longer produced the economy-wide, organic form of checks and balances on economic power but its opposite—the aggregation of power to an ever narrower set of already powerful economic constituencies. Countervailing power within the current form of finance capitalism pits the resurgent interests and organizations of finance against the managers of non-financial firms. Ultimately, the defection of business from the post-war consensus and its political mobilization would lay the political foundation for the neoliberalism of the New Right.

David Ciepley highlights the unique characteristics of the neo-liberal corporation further, arguing corporations are a distinct category – neither public nor private, but ‘corporate’ with distinct rules and norms. They are not simply private, yet they are privately organised and financed and therefore they are not simply public. This chapter analyses the contractual theory of the corporation and argues for replacing it with a political theory of the corporation. The neoliberal corporation is a novel theoretical and organizational construct that treats the pecuniary interests of shareholders as the sole end of the corporation and gears corporate governance toward maximizing shareholder returns against the assumed opportunism of managers and workers. This construct originated in the postwar effort of Chicago neoliberals to revive free market principles, which the rise of the monopolistic corporation appeared to have rendered obsolete. First, neoliberals declared the problem of monopoly a non-problem. Then, to ‘marketize’ the corporation, they cast it as a glorified private partnership. Finally, they applied to it a perverse game theoretic version of agency theory, with the shareholders as the “principal” and management (and workers) as their opportunistic agent. Ciepley critiques both the descriptive cogency of this account and its practical contemporary consequences, which include exploding executive pay, short-termism, institutionalized irresponsibility, worker surveillance and coercion, and soulless management focused on value extraction rather than value creation.

However, there are alternatives to the neo-liberal corporation. Economic theories of the firm, and the legal analyses of corporation law that build on them, are formulated in universal terms, as if “the firm” were in fact a singular category of economic organization. In the next chapter Teemu Ruskola takes as his starting point the diverse and globalized world in which we exist. Beyond the familiar forms of “Western” capitalism—which itself is plural—much of the development in East Asia and Latin America, for example, has been characterized by strongly statist forms of capitalism, challenging many of standard assumptions about the proper boundary between the market and the state. In late twentieth century, “Confucian capitalism” became the rallying cry in many East Asian economies, suggesting that delimiting a clear boundary between the market and the family might be equally difficult. Insofar as these developments reconfigure the division of labour among the institutions of the state, the market, and the family, how can we account for them theoretically? Ruskola’s aim is to allow us to think more creatively and flexibly about corporations in the twenty-first century:

“The idea of “corporation” has no trans-historical meaning, nor is there a single correct way to analyze economic enterprise…To apply liberal economic analysis without modification to non-liberal legal, political, and economic orders risks assuming precisely what we *cannot* know in advance. If we take it for granted which phenomena are best analyzed as economic rather than political ones, for example, we will fail to attend to what should properly be one of the main objects of our analysis—trying to ascertain what *is* the boundary between the economic and political in the system under examination…In the end, there is no single answer to the question, ‘What is a corporation?’ nor is there a single theory of the corporation to account for its existence, legally or otherwise”.

**Strategies of Contemporary Corporations**

Many of the celebrated vast international corporations of the past have largely been disembodied into global value chains. Thomas Clarke and Martijn Boersma consider the implications of the continued advance of global value chains as the mode of production for an increasing number of goods and services, and how this has impacted considerably on the economies and societies both of the developed world, and the emerging economies. However, the disaggregation of the corporation physically into complex networks and productive eco-systems to contractors and sub-contractors distributed around the world, should not be accompanied by a disaggregation of moral responsibility and fiscal accountability. Multinational corporations with elaborate global value chains cannot sub-contract the moral responsibility for the actions they are ultimately accountable for as a case analysis of the richest and most successful corporation in the world, Apple Inc, contractors in China amply illustrates.

Multinational corporations have conventionally been conceived as firms based in the West, extending their operations throughout the emerging economies of the rest of the world. However, Mauro Guillen and Esteban Garcia-Canal document how new emerging market multinationals have expanded around the world and upgraded their capabilities at the speed of light using aggressive growth strategies. They argue in this chapter that the success of these companies lies on new axioms of global competitiveness. They ask two questions: do these firms share some common distinctive features that distinguish them from traditional multi-national enterprises? And secondly how have they been able to expand abroad at such speed, in defiance of the conventional wisdom about the virtues of a staged, incremental approach to international expansion? Before being in a position to answer these questions, they begin by outlining the established theory of the multinational enterprise and explore the extent to which its basic postulates need to be reexamined.

**The Diversity of Institutions and Corporations**

Developing the theme of the diversity of institutions, Jean-Francois Chanlat explores the rich variety of capitalism that exists in Europe, the distinctive qualities of each system, and how each system is developing. The defining features of European corporations are their institutional diversity, and whether convergence is occurring is questioned. He offers a critique of the anthropology of modern management as *homo oeconomicus:* an economic utility maximising man. After long neglecting what occurs within business, the neoclassical economists perceived the business organisation as a place of transaction costs. Human relationships are distilled to principal/agent bargains. The company is then defined as a nexus of specific contracts between owners and clients. The universality of the principal/agent relationship was proclaimed. Yet this model is a “human being amputated of many essential elements of social life.” For Chanlat, the desocialisation and dehumanisation that are associated with this neoclassical vision of human life is not sustainable in the long term due to its fundamental inadequacies as an explanation of how and why people work in corporations.

The Asian corporation provides distinct contrasts to the Anglo-American corporation in orientation towards the community, purpose and strategy Takaya Seki reveals in an analysis of the developments of corporate governance in Japanese corporations. The majority of Japanese companies have taken what they regard as significant steps in this direction of accountability. In Japan, however, there is a different conception of the role of the board, the function of corporate governance, and the purpose of the corporation. Japanese companies are still resistant to the philosophy of shareholder value and attribute more significance to wider shareholders. But with the increasing role of international institutional investors, the arrival of shareholder value and a market for corporate control gives rise to a tension in Japan between the concept of the company as a community, and the company as property. Seki argues that significant changes in these enduring Japanese corporate values and practices can only be accomplished if a more convincing theory and model of the corporation is proposed. In important respects, the contemporary evolution of corporate governance in Japan reflects the fundamental dilemmas inherent in defining corporate purpose first recognized by Berle and Means. The negotiation of the contemporary corporate community, purpose and strategy in Japan will be of relevance to the definition of the distinctive orientations of Asian corporations.

**The Innovative Corporation**

Corporations are regarded as significant drivers of innovation and the next three chapters examine different dimensions of this claim. Christos Pitelis and David Teece argue multinational enterprises (MNEs) exist because of entrepreneurial managements actions to create and capture value through the establishment and design of organizations that help develop cross-border markets, shape business eco-systems, and leverage capabilities. They submit that the concepts of co-specialization, market and business eco-system creation and co-creation, and dynamic capabilities are essential to explicating the nature and essence of the MNE. Embracing critical developments in organization, international strategic management and entrepreneurship scholarship they claim can help the theory of the MNE move toward a multidisciplinary perspective that is both richer in descriptive content and stronger in predictive power. The appropriability of returns from creative and innovative activity often requires the entrepreneurial creation and co-creation of markets. Accordingly, market failure and transaction costs approaches need to be revamped to capture the essence of entrepreneurial and managerial activity that extends beyond the mere exercise of authority. The capability to orchestrate and leverage multiple co-specialized and complementary assets across multiple jurisdictions in order co-create cross-border markets is arguably the grandest of all dynamic capabilities and an important reason behind the spectacular advances of business globalization, notwithstanding the current crisis and setbacks.

In the following chapter William Lazonick takes issue with the neoclassical theory of the market economy which focuses on an ideal notion of perfect competition and neglects the contribution of innovative enterprise. In setting out a theory of innovative enterprise he calls for an understanding of the economy as a collective, cumulative, and uncertain process in which markets are outcomes rather causes of economic development. While in no way rejecting the importance of markets in providing opportunities for individual choice, the theory of innovative enterprise rejects the ideology that individual choice exercised through markets drives economic development. Politically, the theory of innovative enterprise provides a framework for structuring governance, employment, and investment institutions to support the social conditions of innovative enterprise – strategic control, organizational integration, and financial commitment – and to regulate markets in products, labor, and capital so that the operation of business enterprises contributes to equitable and stable economic growth.In this processa key to the success of the corporation is organizational integration which is a set of social relations that provides participants in a complex division of labor with the incentives to cooperate in contributing their skills and efforts toward the achievement of common goals. Organizational integration provides an essential social condition for an enterprise to engage in and make use of collective and cumulative organizational, learning. Through organizational integration, people in a hierarchical and functional division of labour work together to create value that would otherwise not exist.

In the third chapter in this section Danielle Logue considers the historical changes in the way corporations engage in innovation, the conceptualizations of disruptive innovation, and the consequences of recent developments in technology, models and movements for the corporate form, and particularly the boundaries of the corporation, together with management practices and leadership. Disruptive technologies can take many forms – from new markets, new products, new legislation and political rules, new business models, new needs and consumers behaviours. corporations need to simultaneously exploit what they are currently good at (sustaining innovations) and explore new markets and products (disruptive innovations) that might challenge their market leadership or sustainability. The conceptualization of disruptive or sustaining innovations reflects the ongoing challenge for corporations today in allocating attention and resources to all forms of innovation. It remains a difficult task when it challenges a corporation’s status quo and cannibalizes existing success. Logue concludes with a consideration of how disruptive innovations are impacting the role and significance of the corporation in modern society.

**The Responsible Corporation**

In a rapidly changing context, Nicolai Foss and Stefan Linder consider new directions in the theory of the firm. The economic theory of the firm has strongly influenced our current understanding of the *raison d’être*, functioning, and internal organization of organizations. Yet organizations today operate under quite different conditions than the ones that prevailed when some of the foundations for the contemporary theory of the firm were laid (i.e., the 1930s to the 1970s). The unfolding knowledge economy and the growing pressure for corporate social responsibility promise to profoundly affect the nature of corporations. Taken together the two challenges faced by corporations today imply a growth in importance of team production with non-homogeneous knowledge workers, render contracts less complete, heighten performance measurement problems, and a suggest a stronger role of implicit and relational contracts to complement the increasingly incomplete explicit ones. Foss and Linder discuss what the economic theory of the firm has to offer for understanding these challenges faced by corporations today and where the knowledge economy and corporate social responsibility push the limits of the economics of organization. Such a dialogue may also further our understanding of the rationales, functioning, and internal organization of corporations in the 21st century and hence, lead to further refinement of the theory of the firm.

In a further exploration of corporate social responsibility in the knowledge economy Cynthia Wiiliams examines how corporations are both shaping, and responding to, social reality, including the rapidly-changing views of citizens in different countries concerning responsible business behavior. She investigates how the responsibility of corporations in law was depoliticized by treating this as a question of duties of directors within the firm, while corporations themselves had a more political understanding of corporate responsibility as a means of protecting capitalism from collectivist politics. By the beginning of the 1980s the movement began to conceptualize directors’ fiduciary duties as to maximize shareholder value. This was accompanied by the withdrawal of the state from a range of social protection, while corporate responsibility was advanced as society reacted to the destabilizing effects of unrestrained markets. Corporations embarked on a partial embrace of corporate responsibility ideas and methods, yet in a context of continuing resistance to the fundamental principles of corporate responsibility. These tensions continue to the present day between corporate commitment to principles of corporate social responsibility, without the commitment to change their fundamental business models in alignment with these principles.

**The Sustainable Corporation**

In a hopeful assessment of the greening of the corporation Thomas Clarke highlights how the dawning realization of the global consequences of imminent climate change now provides a series of inescapable challenges for business enterprises. Responding to these climate challenges involves the exploration and development of new paradigms of corporate purpose and activity. A series of international institutional initiatives are inspiring, facilitating, and guiding the progress of companies towards new conceptualizations of their responsibilities. These policy initiatives are increasingly reinforced by market indices which recognize and measure the performance of companies according to social and environmental criteria. This effort is endorsed by a wide array of business and civil society bodies that are researching and disseminating knowledge and practical analytical skills regarding sustainability. This amounts to a changing corporate landscape where risk, strategy, and investment are closely calibrated with social and environmental responsibility

The possibilities of corporate sustainability in an increasingly fragile planet are explored by Suzanne Benn and Melissa Edwards. Corporations are faced with global market challenges such as incorporating the cost of environmental externalities, capitalizing on impact investing, developing integrated frameworks to account for sustainability performance and enhancing corporate resilience and adaptation in regard to climate change and other environmental and social issues. New business models forming in the circular and sharing economies are enabling transitions to the adoption of sustainable business practices. Such new business models address resource depletion, issues associated with waste management and innovative design of products and services. Transition requires new management practices and resource stewardship models that go beyond the traditional product life cycle requiring collaborative or inter-organizational governance structures. The array of responses to the implementation of sustainability are illustrative of the scope of the challenge, as they range from business as usual managerial implications, to more radical and transformative models that frame an entirely new economy.

**The Future of the Corporation**

The private proprietary corporation may have been the special purpose vehicle of the extractive sharing economy, however new legal structures that braid together profit and social purpose are increasingly available. Bronwen Morgan assesses how social enterprise may be transcending the traditional corporation. Structural experimentation is stirring conceptual rethinking about the legal structure of economic entities. This chapter explores different approaches to the sharing economy and social enterprise. Recent developments in experiments with legal organisational forms are injecting diversity into the relative monoculture of the corporate form. Two threads are of particular interest in this chapter. The first concerns the creation of hybrid legal structures for ‘social enterprise’. The second stems from a revival of interest in cooperative structures, particularly in tandem with the digital economy. The chapter places these two threads in dialogue with Simon Deakin’s recent stimulating argument that the commons provides the most convincing conceptual foundation for understanding corporate governance. The chapter concludes with a brief overview of governance experimentation in small-scale food enterprises. Since debates around the production and distribution of food increasingly centre around the notion of food as a ‘commons’, this provides a useful illustration of some of the key implications of the chapter’s argument.

The final chapter of the *Handbook* by Simon Deakin is on the corporation and the commons. The theoretical argument is that the firm is best seen as a collectively managed resource or ‘commons’ which is subject to a number of multiple, overlapping and potentially conflicting property type claims on the part of the different constituencies or stakeholders who provide value to the firm. The sustainability of the corporation depends on ensuring proportionality of benefits and costs with respect to the inputs made to corporate resources, and on the participation of the different stakeholder groups in the formulation of rules governing the management and use of resources. Viewing the corporation as a *commons* in this sense is the first step towards a better understanding of the role that the corporate form can play in ensuring wider social and natural sustainability.

A further refining of communitarian restraint extends beyond the corporation itself by suggesting that it is an essentially collaborative institution. This builds on an influential political economy framework. As Deakin points out, alongside “shareholders’ rights of exclusion and alienation identified by corporate law scholarship,” are “rights of access, withdrawal and management which frequently vest in other stakeholder groups, including employees and creditors, but also fiscal and regulatory bodies. The task of governing the corporation is the same as that of governing all other commons, which is to devise a set of norms which will enable the overlapping and competing claims of the different stakeholder groups to be reconciled, with a view to sustaining the common resource on which they all, in different ways, depend.”

**New Directions for the Corporation**

As is clear from the foregoing analysis, the corporation is under considerable strain as an institutional form, and is being pulled in different, and sometimes new directions. The corporation is transforming out of all recognition but remains a determining force in the global economy for the future. There is considerable evidence that the corporation internationally is developing in many new and different directions. In the United States the traditional large corporation has declined progressively in public listings which has provoked a debate about the impact of capital markets on corporate longevity (Davis 2017; Lazonick 2017). Meanwhile the extensive financialisation of corporations continues in the West, and the leading platform technology companies including Apple, Google and Facebook have asserted a global domination earlier monopolists could only have dreamed of.

In other parts of the world, corporations generally have consolidated in Europe, where although capital markets have grown and become more demanding they are not as dominant as in the Anglo-American world (Clarke and Chanlat 2009). There is a burgeoning growth of corporations in the dynamic emerging economies. In Asia the corporation is in the ascendant, with Chinese and Indian corporations now becoming global brands. The increasing influence of Asian corporations in sectors stretching from resources, through manufacturing, to finance is becoming apparent, together with the realisation that many of these companies are either state owned or influenced. Overshadowing all this continuing corporate activity is the vast shadow of climate change, which directs all corporations towards the realisation that *wealth generation* cannot be at the expense of the systemic depletion of the natural capital of the world to the point of extinction.

**The Failure of the Corporation?**

Though the origins of the corporation are associated with the colonial trade of Europe, and European corporations were among the first multinationals, the analysis of corporations over the last century has focused heavily on the ascendancy of the corporation in the United States, with corporations such as General Motors, Exxon, Proctor and Gamble, General Electric, Ford and IBM dominating the American economy. Yet critically informed analysis of the contemporary corporation in the United States would suggest that this institutional form is presently failing in some fundamental ways. There is a crisis now in American corporations, as there was a crisis when Berle and Means began writing, though of a different origin and order. Davis (2017; 2013) records how for the past two decades listed public corporations in the United States have been disappearing in the new economy. As Figue 1.2 illustrates the number of U.S. based companies listed on the Nasdaq and New York Stock Exchange dropped by over half between 1996 and 2016 from 8,090 corporations to 4, 331 (Davis 2017; World Bank 2017; Credit Suisse 2017).

While many historically eminent U.S. corporations are no longer in existence, this could be simply part of a dynamic process of industrial change “ change and not stability is the permanent feature defining these very important institutions of capitalism…Turbulence is the future, just as it was in the past of these giant firms…Economies, firms and social actors are part of a sweeping process of change…And this is the both the condition and the opportunity for progress.. (Louca and Medonca 2002:840; Chandler 1977; 1990). Though a concern highlighted by Davis (2017) is that entrepreneurial young technology companies are avoiding public listing because of both the regulatory rigours involved, and the insistent demands of external shareholders.

**Figure 1.2 Decline of the Number of Listed Corporations in the United States 1975-2017**

Source: World Bank (2017) <https://data.worldbank.org/indicator/CM.MKT.LDOM.NO?locations=US>

A strong sense of a deeper malaise in the American capital market system impacting on U.S. corporations caused a meeting to gather in July 2016 at the head office of JP Morgan in New York of leading investor CEOs from BlackRock, Vanguard, Fidelity, and Berkshire Hathaway and industrialists including the CEOs of GE, GM, Verizon and JP Morgan who drafted an open letter outlining their concerns beginning, “The health of America’s public corporations and financial markets – and public trust in both – is critical to economic growth and a better financial future for American workers, retirees, and investors” (Sorkin 2016). The conclusion of the investors and industrialists was that higher standards of corporation governance and more congenial regulation might encourage back corporations to the stock exchanges. Reviewing the vanishing listed companies, precipitous fall in initial public offerings, and many de-listings, the more damning verdict of Davis (2017:5) is that “the public corporation was an ideal vehicle for the 20th- century economy, characterized by long-lived assets and economies of scale. But it is increasingly out of sync with the 21st century economy.”

As Chandler (1969) recounted public corporations originated in the US with the railroads, expanding with the large-scale manufactures of U.S. Steel and General Motors, and with infrastructure firms such as AT & T and national retailers such as Sears who required large investments for their vast scale of operations. The stock market provided the resources to build great vertically integrated factories and to hire the thousands of people necessary to staff them. But the leading corporations today need little in the way of dedicated assets and tend to employ comparatively few workers. If these contemporary companies engage in public offerings it is often to enable venture capitalists, early employees and other investors to cash out, and to use their public stock as a currency for making acquisitions as in the case of Facebook (Davis 2017:18).

Four major causes for the loss of U.S. publicly listed companies are highlighted by Davis (2017; 2013):

* The bursting of the Internet bubble with a huge wave of dot.com collapses commencing in 1999; followed by the Nasdaq crash, and the failures of Enron, Worldcom and a string of over-leveraged telecoms corporations in 2001/2002;
* The computer and electronics manufacturing industry progressively moving offshore from the early 2000s, with the rapid growth of China as the manufacturing hub for electronics, and the growth of India as the centre for date processing;
* The deregulation of finance with the Riegle-Neal Act in 1994 allowing banks to acquire competitors across state lines, and the repeal of the Glass-Steagall Act in 1999, leading to a rapid consolidation through merger of the thousands of US commercial banks and savings banks, and the emergence of the vast international banks including JP Morgan Chase, Citigroup, Bank of America and Wells Fargo. This was abruptly followed by the global financial crisis of 2007/2008 leading to a wave of investment bank failures including Bear Stearns, Lehman Brothers and Merrill Lynch, and savings bank failures including Wachovia and Washington Mutual.
* The economies of scale that encourage extensive consolidation throughout pharmaceuticals, as small bio-tech and medical devices companies are acquired by giant pharmaceutical companies, sometimes by large pharma firms merging with small overseas companies to attain ‘inversion,’ that is retaining foreign incorporation status for tax reasons.

Substantially the decline of the number of US public listed companies could be regarded as largely a process of merger and takeover leading to greater concentration of industrial capital in larger corporations. Though the numbers of listed corporations in the U.S. is dwindling, the market capitalisation of the remaining leading corporations has compounded massively: World Bank (2017) figures show the US market capitalisation of listed domestic companies increased from $8.48 trillion in 1996 to $27.35 trillion in 2016 (Figure 1.3). This suggests that what is occurring is essentially a concentration and monopolisation of corporate power rather than a disappearance of the corporation. As Credit Suisse (2017) concludes “As a consequence of this trend, industries are more concentrated and the average company that has a listed stock is bigger, older, more profitable, and has a higher propensity to disburse cash to shareholders.”

**Figure 1.3 Listed Corporations Market Capitalisation 1975-2017 in United States (USD Trillions)**

Source: World Bank (2017) <https://data.worldbank.org/indicator/CM.MKT.LCAP.CD?locations=US>

**The Financialisation of the Anglo-American Corporation**

Together the large industry sectors of computer programming and data processing, commercial banking and savings institutions, and pharmaceuticals accounted for the great majority of firms leaving the public stock markets. However, rather than a failing inherent in the corporation as an institution, it was the impact of irresponsible capital markets that overwhelmed corporations and oriented them singularly towards narrow and ultimately self-defeating financial measures as the guiding controls of their destiny.

A deeper explanation of the diminishing attraction of public listing on the New York Stock Exchange or Nasdaq is the arrival of the doctrine of shareholder primacy. The falling numbers of listed companies correlates closely with the increasing virulence of the demand for the delivery of shareholder value as the primary purpose of corporations over the last few decades. In the United States any balanced conception that the purpose of the corporation was not only to produce returns to investors, but to provide useful employment, to produce quality products for customers, and to be responsible corporate citizens, was replaced at the insistence of the Chicago School of free-market economics with the sole purpose of delivering shareholder value (Jensen, & Meckling 1976; 1978; Jensen 2002). This simplistic prescription was built into the self-interest of executives with the explosion of stock options which increased from zero in the 1980s to 60 per cent of median pay for CEOs of Fortune 500 companies by 2001 (Stout 2012; Clarke 2013). In effect this incentive mechanism has displaced corporate goals from investing in the long-term future of their success, to disbursing as much money as possible in the immediate term to shareholders:

“Shareholder primacy thinking is discouraging U.S. corporations from pursuing long-term projects. For example, in the middle of the twentieth century it was common for public companies to retain about 50% of their profits for reinvestment. Over the past 30 years, however, companies have started to retain much less, and to pay out much more in the form of dividends and share repurchases. Indeed, in the last few years, aggregate corporate payouts to shareholders have actually matched or exceeded aggregate corporate profits” (Mason 2015).

Lazonick (2017) highlights the perverse results of the increasing distribution towards shareholders, particularly in the form of stock repurchases: that corporations have become suppliers of capital to the stock market in the US over the last three decades, rather than the stock market supplying capital to the corporations. Buybacks surpassed dividend payments in 1997 for the first time, and since then in recent stock market booms buybacks have far exceeded dividend payments. Lazonick (2017:2) examines net equity issues, that is new corporate stock minus outstanding stock retired through stock repurchases and merger and acquisition activity in the United States between 1946 and 2016. From the mid-1980s net equity issues for non-financial corporations have proved generally negative, but since the mid-2000s have been massively negative amounting to minus US$ 4, 466 billion (Figure 1.4). That is the investors in the U.S. stock exchanges in recent decades have been increasingly *draining* capital out of corporations, rather than *investing* capital in corporations.

**Figure 1.4 Net Equity Issues, US nonfinancial and financial companies 1946-2016**

Source: Board of Governors of the Federal Reserve System, Federal Reserve Statistical Release Z.1, “Financial Accounts of the United States: Flow of Funds, Balance Sheets, and Integrated Macroeconomic Accounts,” Table F-223: Corporate Equities, March 9, 2017, at

https://www.federalreserve.gov/releases/z1/current/

Lazonick concludes: “Over the past three decades, in aggregate, U.S. stock markets, of which the New York Stock Exchange and the NASDAQ exchange are by far the most important, have extracted trillions of dollars from business corporations in the form of stock buybacks. Of course, some companies raise funds on the stock market, particularly when they are doing initial public offerings (IPOs). But these amounts tend to be relatively small, swamped overall by the stock repurchases that have made net equity issues hugely negative” (2017:3).

This enrichment of the investment institutions has benefited investors, (though 92% of business equity is held by just ten per cent of the U.S. population, and the majority of this equity is owned by the richest 1% according to Wolff) (2012). This draining of the capital of companies by activist investors has serious consequences for the capacity of corporations to invest in innovation for their future, to provide employment, and to develop their products and markets. These insistent pressures are felt by the largest and richest companies in the world. For example, Apple which raised approximately $100 million at its IPO in 1980, emerged in recent years as the largest corporation by market capitalisation on earth reaching in excess of US$ 900 billion in 2018, with a real prospect of becoming the first trillion dollar corporation by market capitalisation. But at the height of its commercial success Apple has had to face repeated attempts by hedge fund managers and other activists to pay hundreds of billions of dollars in dividends and share buybacks and has only secured respite by proposing its own program of massive disbursements to shareholders (Clarke and Boersma this vlume).

These pressures often impact more cruelly on the aspirations of smaller companies with potential who are more vulnerable financially. Marc Andreessen who took Netscape public in 1994 when it was worth around US$2.2 billion commented on factors discouraging young firms from going public in the present context, focusing on the the demands of activist investors and short-sellers. “For young companies, everything is connected: stock price, employee morale, ability to recruit new employees, ability to retain employees, ability to sign customer contracts, ability to raise debt financing, ability to deal with regulators. Every single part of your business ends up being connected, and it ends up being tied back to your stock price” (Lee 2015:6). For small firms, the volatility of the financial markets since 2008 may simply create too much uncertainty for IPOs to be worth it. (Davis 2017:17)

As non-financial corporations were drawn increasingly into an all-encompassing financial paradigm, they have less capital available for productive activity despite increasing profits. The obsessive emphasis on financial measures of performance leads to increasingly short- term business horizons, with little recognition of the need for reinvestment, and maximum focus on distribution to shareholders (Kay 2012; Stout 2012; Clarke 2014). In a startling analysis in the *Harvard Business Review* Bower and Paine (2017) highlight some unacceptable ways the results are delivered to achieve improvement in shareholder returns:

“The activists’ claim of value creation is clouded by indications that some of the value purportedly created for shareholders is actually value transferred from other parties or from the general public. Large-sample research on this question is limited, but one study suggests that the positive abnormal returns associated with the announcement of a hedge fund intervention are, in part, a transfer of wealth from workers to shareholders. The study found that workers’ hours decreased and their wages stagnated in the three years after an intervention. Other studies have found that some of the gains for shareholders come at the expense of bondholders. Still other academic work links aggressive pay-for-stock- performance arrangements to various misdeeds involving harm to consumers, damage to the environment, and irregularities in accounting and financial reporting.”

Wider implications for the economy and society of the insistent influence of financialisation in Western economies are identified by Foroohar (2016:33), who recognises a *symbiotic embrace* between finance and the underlying social and economic malaise. As the finance sector rapidly expands, productivity declines in other industrial sectors, for example in advanced manufacturing which is critical in many economies for long term growth and jobs. This is because finance prefers to invest in areas such as real estate and construction which are less productive, but offer quicker and more reliable short-term gains together with collateral that can be sold in a crisis or securitised in boom times:

“The deep structural dysfunction in our economy, emanating from the financial system, remains in place. The size of the sector itself is still close to record highs… But what’s quite clear is that the reorientation of the economy toward finance and the dominance of financial *thinking* in daily management of non-financial firms have warped the way both business and society work. The sway of the markets over the real economy has skewed the playing field and created growing inequality and capture of resources at the top of the socioeconomic pyramid. It has also led to dramatic inefficiencies in resource allocation that may be a cause, rather than a symptom of slower economic growth” (Foroohar 2016:32).

Being managed by the financial markets has many implications for corporations (Davis 2009). The most fundamental is that “the business of corporate America is no longer business – it is finance. It is easier for chief executives with a shelf life of three years to try to please investors by jacking up short-term share prices than to invest in things that will grow a company over the long haul” (Foroohar 2017). The financial markets which delivered the twin booms in credit and real estate which ignited in the global financial crisis, have continued to encourage the financialisation of businesses to focus on trading, hedging, issuing debt, tax optimisation and other methods of moving money around rather than their core business (Porter 1992; Useem 1996; Krippner 2012; Lazonick 2012; van der Zwan 2013). These impulses towards an increasingly financial focus have impacted industries across the spectrum ranging from airlines to biotech, and even the digital titans of Silicon Valley are coming to resemble investment banks in their operations.

**The Digital Hegemony of Platform Technology Corporations**

However difficult the financial market environment, continuous advances in technology present rich possibilities for new pathologies of globalisation, intensifying automation and the powerfully disruptive impact of the digital revolution (MGI 2016; OECD 2017; Reuver et al 2017)). Though now underway for half a century, digital transformation has entered a new phase built on high speed and mobile connectivity: an era of cloud computing and rise of the platform economy (Kenny and Zysman 2016). Cloud computing releases digital platforms, big data, and computational-intensive automation, which enable the re-conception of firms, institutions and markets (MGI 2017). As the OECD (2017a) comments, “Underpinned by information and communication technology (ICT) investment, business dynamism, entrepreneurship and data-driven innovation (DDI), traditional goods and services are increasingly enhanced by digital technology, new digital products and business models emerge, and more and more services are being traded or delivered over online platforms.”

Digital platforms provide a new basis for business eco-systems with many possibilities, as even small businesses can become micro-multinationals employing platforms technologies. Emerging digital business eco-systems will disrupt traditional value chains. Greenberg et al (2017) suggest three types of eco-system emerging for businesses with different sources of value creation and competition:

• *Linear value chains*

Linear value chains dominated for most of the 20th century, comprising value adding steps with the goal of producing and selling products, most notably with automotive assembly.

• *Horizontal platforms*

Horizontal platforms gained prominence due to the rise of personal computing and the Internet, cutting across value chains. Companies with horizontal platforms own hard assets and sophisticated architecture, with value added software and technology stacks.

• *Any-to-Any Platforms*

Any-to-any platforms have emerged recently such as Uber and Airbnb which operate based on existing platforms, but are themselves asset-light while providing valuable services internationally (Greenberg et al 2017; OECD 2017a)

The OECD states how this technology is creating a new sharing and collaborative economy, “Online platforms not only scale fast while gaining little mass through matching several networks in two, or multisided, markets, which fuels high valuation of the operating companies; they also lower transaction costs to a point at which individuals can compete directly with firms, in particular in service markets” (OECD 2016:5). The hegemonic transcendence of new business eco-systems with their distinctive business models is nowhere clearer than in the domination of the US stock exchanges by platform-oriented companies: in April 2018 Apple ($939 billon), Amazon ($776 billion), Microsoft ($739 billion), Alphabet (Google) ($733 billion), and Facebook ($515 billion), and Alibaba ($501 billion) and Tencent ($545 billion) claimed seven of the eight largest corporations by market capitalisation in the Nasdaq (Figure 1.5). The universality of Microsoft was achieved decades ago, but the more recent arrival of the FAANGs (Facebook, Apple, Amazon, Netflix and Google to such platform hegemony has astonished the world and overwhelmed the US public stock market. Yet they are not alone. Once Silicon Valley appeared to have a monopoly on platform teachnology, but Asia is now demonstrating that it too can innovate. In China a start-up culture is developing rapidly, and meteoric success is occurring with the BAT (Baidu, Alibaba, and Tencent) (Lucas and Wells 2017). (Though smaller with a market capitalisation of $89 billion in January 2018, the shift of Baidu from being simply a search engine to artificial intelligence in China’s booming advanced engineering industry is an important sign of the Internet of Things to come).

**Figure 1.5 World Largest Corporations by Market Capitalisation in US$ billions (April 2018)**

Source: NasdaqGS - NasdaqGS Real Time Price.

The transformation to a digital world is accelerating rapidly, with the exponential increase in data flows internationally far exceeding any increase in international trade. Online connectivity is becoming universal with estimates of 26 billion connected devices in the world by 2020 providing the infrastructure for the Internet of Things (Greenberg et al, 2017). This compounding connectivity combines to promote further innovation and connection Arthur (2009). In Germany the confluence of these multiple trends has come to be known as *Industry 4.0,* the fourth industrial revolution*.* That is as robotics, 3D printing, data analytics, the Internet of Things, and digital fabrication are joined together, as they integrate the physical and virtual worlds in productive endeavour (Deloitte 2014).

European corporations are not as dependent as companies in the United States on public stock markets for access to capital, and their market capitalisation has tended to be more subdued as a result. In both Europe and Asia, a combination of financial indicators such as sales, profits, assets and market value are a more accurate guide to the worth of companies. However, in terms of relative industry position, as Figure1.6 and Table 1.1 indicate three of the largest 12 corporations in Europe by market capitalisation are in the advanced pharmaceuticals and bio-technology fields (Roche, Novartis and Sanofi) and only one in Technology (SAP).

**Figure 1.6 Europe Largest Corporations by Market Capitalisation (March 2017)**

Source: NasdaqGS – Company Reports and NasdaqGS Real Time Price

Associated with the evident success of European businesses in automotive (VW) and advanced manufacturing (Siemens), the continuing sway of traditional fossil fuel companies in Europe is apparent (Table 1.1). The sudden conversion of the European car industry to electric power in recent years, may over time convince the fossil fuel companies to move more quickly to renewable sources of energy, and the alternative new technologies this encompasses.

**Table 1.1 Europe Largest Corporations by Industry Product and Origin (March 2017)**

|  |  |  |  |
| --- | --- | --- | --- |
| **Corporation**  | **Industry** |  **Origin** | **USD (Billions)** |
| Nestle | Food Producer | Switzerland | 239 |
| Anheuser-Busch  | Beverages | Belgium | 189 |
| Roche  | Pharmaceuticals & Bio-technology  | Switzerland | 194 |
| Royal Dutch Shell | Oil & Gas Producers | UK | 316 |
| Novartis | Pharmaceuticals & Bio-technology | Switzerland | 180 |
| HSBC | Banking | UK | 194 |
| Unilever | Consumer Goods | Netherlands | 149 |
| Total | Oil & Gas Producers | France | 124 |
| BA Tobacco | Tobacco | UK | 109 |
| SAP | Software Technology | Technology | 136 |
| Volkswagen | Automotive | Germany | 103 |
| Sanofi | Pharmaceuticals & Bio-technology | France | 97 |
| Siemens | Industrials | Germany | 109 |

Source: NasdaqGS – Company Reports and NasdaqGS Real Time Price

However, the renewed global enthusiasm for all things digital may be somewhat misplaced. The predominance of American information technology and software in Europe are causes for concern which the European Union has expressed forcefully. Digital disruption was never the benign force for efficiency and service it is claimed to be. Concealed beyond the image of rampant success often lies a more disturbing reality. The platform companies in particular have long since moved from their original exploration, innovation and discovery phase to one of exploitation, domination, and monopoly.

As commercial ventures they have claimed the right to universal access without the attendant responsibilities and have portrayed themselves as model corporate citizens whilst systemically refusing to pay taxes to the communities from which they benefit in ever-increasing revenue flows (Foer 2017; Clarke and Boersma 2017). The ingenuity with which internet and other high-tech companies manage their tax avoidance is astonishing given their well-honed public images as responsible and caring corporations. For example, the IMF has identified one tax avoidance technique, the use by high tech companies of the “Double Irish Dutch Sandwich” involving subsidiary companies in Ireland, Holland and a tax haven such as Bermuda. In 2012 Google revenues in the UK were £3 billion, but the company paid just £ 11.5 million in corporation tax, (0.4% of its sales in England) because its sales there were billed to Google Ireland Ltd. This Irish subsidiary also paid low corporation tax (£14m) because it channelled £7bn in royalties, through ‘Google Netherlands Holding Bv’, (the Dutch company in between), to Google Ireland Holdings, the Irish/Bermuda resident company which owns the intellectual property that Google Ireland Ltd is licensed to sell. (Ethical Consumer 2014). In 2016 the European Commission concluded that Ireland had granted Apple undue tax benefits of up to 13 billion Euro and ordered Ireland to recover this from the company (European Commission 2016). This may all be part of an increasingly universal pattern of systemic corporate tax avoidance throughout the world (Seabrooke and Wigan 2017a). However, the platform technology companies have portrayed themselves as enlightened corporate citizens intent on improving the world, and this is hardly consistent with a studious avoidance of taxes to fund the public services that support their companies.

Abuse of market power is also present. For example, having already fined Google USD 2.7 billion in an anti-trust case in June 2017, Margrethe Vestager, the EU’s competition commissioner, issued two further “statements of objections”, or formal legal complaints, accusing the company of misusing its market clout in online advertising and shopping. “Google has come up with many innovative products that have made a difference to our lives. But that doesn’t give Google the right to deny other companies the chance to compete and innovate,” she said (European Commission 2017).

As Stephens (2017) concludes regarding the implications of the increasing dominance of the platform technology companies:

“In truth, of course the anarchic promise of an internet under the benign oversight of entrepreneurs, innovators and well-meaning geeks was always an unachievable ideal. Today’s web is dominated by a handful of global corporations whose self-serving sense of “otherness” has become an excuse to avoid the responsibilities demanded of everyone else. One-time disrupters – think of Amazon – are now rent seekers. This market power – Google has three-quarters of global search; Google and Facebook together account for three-fifths of digital advertising revenues – allows companies to set their own tax rates, to shut out competitors, and to choose what rules to apply.”

The hegemony of the Western platform corporations may not last forever. Already Tencent and Alibaba in China are growing exponentially to rival their U.S. based counterparts, by January 2018 Tencent achieved a larger market capitalisation than Facebook, and the uptake of financial technology for transactions in China far exceeds the United States by many trillions of dollars (Wildau and Hook 2017). The fast cycle innovation and growth of corporations throughout the emerging economies, and particularly of Asian corporations represents a profound shift in economic power in the global economy (Clarke and Lee 2017).

**The Ascendant Corporations of the Emerging Economies**

While the number of listings fell by roughly 50 percent in the U.S. from 1996 through 2016, it rose about 50 percent in 13 developed countries that have complete data. Over the same period, listings rose 30 percent for a larger population of 71 non-U.S. countries (Credit Suisse 2017:4). As Carlson advises “The number of companies listed on global stock market exchanges has increased…while the number of companies in the U.S. has shrunk the number of companies worldwide has exploded” (2017). The World Bank reveals over 43,000 listed corporations in 2015 worldwide, an increase from 25,000 corporations listed in 1992 (Figure 1.7).

**Figure 1.7 Increase in the Number of Global Listed Domestic Companies 1975- 2016**

Source: World Bank (2017) <https://data.worldbank.org/indicator/CM.MKT.LDOM.NO>

 The World Bank records a value of nearly US$ 80 trillion for the market capitalisation of listed domestic companies in the world in 2017 (Figure 1.8). With a more rapid growth rate than the developed economies, emerging markets now account for an increasing share of global gross domestic product.

**Figure 1.8 Market Capitalisation of Global Listed Domestic Companies 1975- 2017 (current US$ Trillion)**

Source: World Bank (2017) <https://data.worldbank.org/indicator/CM.MKT.LCAP.CD>

The emerging economies have become increasingly attractive to the leading foreign multinationals searching for new markets, resources, and skills. The evolution and sophistication of local markets has been enhanced by the activity of foreign multinationals, while home-grown multinational enterprises have evolved, and are having an effect overseas entering developed markets (Lee 2013; BCG 2016). Santiso charts the growth of multinational companies from the emerging economies including China, India, Brazil and Mexico, with China alone listing 109 companies among the Fortune 500 companies (2013:6) This is reflected in the increasing presence of emerging markets in labor-intensive manufactured goods including automobiles and computers; however, the emerging markets are beginning to advance from production capability to innovation capability (Amann and Cantwell 2012; Clarke and Lee 2017). While the developed economies continue to dominate the flows of knowledge-intensive industries, the emerging economies are developing their foothold in this sector, with China having the second-largest knowledge intensive flows following the United States (McKinsey Global Institute 2014). As Kearney suggests the emerging markets and their corporations are becoming an international economic and social force of growing significance:

“Emerging markets comprise the majority of the world’s people and land, and they continue to grow faster than the developed world. They are increasingly recognised as a diverse set of business, cultural, economic, financial, institutional, legal, political and social environments within which to test, reassess and renew received wisdoms about how the business world works, to gain deeper insights into prevailing theories and their supporting evidence, and to make new discoveries that will enhance human welfare in all environments including the world’s poorest countries, the developing world, the transition countries and the developed world” (Kearney 2012, 160).

The corporate governance institutions and practices in emerging markets traditionally were founded upon markedly different values from the preconceptions that inform the dominant international standards, and despite often adopting some of the rhetoric of Western governance, often different cultural and institutional orientations survive in emerging markets. The separation of ownership and control was heralded by Berle and Means (1933), and transformed by agency theorists into the key problem of a conflict of interest between diffuse outside shareholders and managers with small amounts of equity in the firm (Jensen and Meckling 1976). However, international survey research finds that the separation of ownership and control is the exception worldwide, and particularly in emerging markets (Aguilera et al. 2012; Claessens et al. 2000; Fazio 2008). In reality, the hegemonic market based conception of corporate governance with managers acting as agents for dispersed shareholders is present (and only to a degree) in the Anglo-American economies; but throughout the rest of the world, encompassing Asia, Europe, Africa and South America, more relationship-based modes of governance are widely practiced (Hall and Soskice 2001; Kogut 2012; Seki and Clarke 2014). As the emerging economies continue to develop their social institutions and economic infrastructure there will be a continuing tension between their values and objectives, and international market pressures.

**The Dominant State-Owned Corporations of Asia**

Corporations in Asia compared to the West have two outstanding characteristics: the first is the lingering presence of family influence in the majority insider shareholder structure of Asian corporations, and secondly the overshadowing influence of the state whether in dominant state-owned corporations, or state influenced corporations, (family influence often also extends to the state institutions (Claessens et al 2000; Claessens and Fan 2002; Claessens and Yurtoglu 2012; Clarke 2017). Family ownership remains prevalent in Asia, including many of the largest corporations where ownership of major shareholdings guarantees family control. The widespread and influential state-owned enterprises of Asia, are corporate entities in which the government exercises ownership and control, and can include joint stock companies, and limited liability companies, as well as statutory corporations. The OECD (2017b:8) report on the global scale of state owned enterprises (SOEs) indicates that while SOEs have remained significant corporate vehicles in many economies, and particularly in the developing economies. However, China’s state-owned enterprise portfolio with 51,000 enterprises, valued at over USD 29 trillion, and employing over 20 million people, is larger than the SOE sector of all other countries in their survey combined.

The increasing domination of Chinese state-owned corporations in Asia is illustrated in Table 1.2 listing Asia’s largest corporations by revenues (in Asia market capitalisation is a less useful guide to the scale and activity of corporations, due to the prevalence of vast state owned corporations in many industry sectors). The massive growth of Chinese corporations in resources, utilities, banking and construction is testament to the immense rebuilding of the infrastructure on China over the last three decades. Now that this work is nearing completion the Chinese government has directed the efforts of these gargantuan corporations externally to the heroic task of connecting the Chinese economy to the world in the belt and road initiative (Lim et al 2016; Cai 2017). The Chinese banks, which after the global financial crisis became the largest banks in the world, are continuing to expand their global operations. For some decades China had been the leading emerging economy for the receipt of direct foreign investment, though “A historic turning point was reached in Chinese economic development in 2014, when the nation's direct foreign investments surpassed foreign countries' direct investments in China.” This was a critical stage in the globalisation of the Chinese economy (Jianquing 2015), announcing to the world that China had become a global player.

**Table 1.2 Asia’s Largest Corporations by Revenues (2016) USD billions**

|  |  |  |  |
| --- | --- | --- | --- |
| **Corporation** | **Product** | **Origin** | **USD (Billion)** |
| State Grid Corporation | Electricity Utility | China | 330 |
| China National Petroleum | Petro-Chemicals | China | 299 |
| Sinopec Group | Petro-Chemicals |  China | 294 |
| Toyota | Automotive | Japan | 237 |
| Samsung | Communication Technology | S. Korea | 177 |
| ICBC Bank | Banking | China | 151 |
| Hon Hai Precision Industry (Foxconn) | Electronics | Taiwan | 141 |
| China State Construction Engineering | Construction | China | 140 |
| China Construction Bank | Banking | China | 134 |
| Agricultural Bank of China | Banking | China | 133 |
| Honda Motor | Automotive | Japan | 122 |
| Bank of China | Banking | China | 113 |

Source: World Bank (2018)

The Chinese state-owned corporations are among the largest corporations in the world. By way of comparison in 2016 the only company in the world to exceed the revenues of the leading three Chinese corporations was Walmart (with revenues of USD 482 billion). The leading corporations in the world by market capitalisation had revenues significantly less than the largest Chinese SOEs, for example Apple Inc in 2016 had revenues of USD 234 billion, and Microsoft USD 94 billion. Only 12 countries in the world had national government revenues greater than the revenues of the largest three Chinese corporations (World Bank 2016).

As the reach of China’s multinational corporations has extended further overseas, only limited efforts have been made to distance these corporations from the state. Since the time of Deng Xiaoping’s opening up strategy, there have been attempts to introduce market mechanisms into the operation of China’s corporations. However, the resolution to move SOEs gradually into the market sector, was recently replaced by President Xi to impose a reinvigorated commitment to maintain the Communist Party influence in China’s great corporations. This has included more formally recognising the role of the Party committee within all corporations, including Hong Kong listed entities, which some Western investors have accepted as at least a move towards greater transparency in the control of Chinese corporations (Mitchell 2017; Hughes 2017). In these circumstances the OECD has raised concerns regarding the internationalisation of state owned enterprises, which benefit from being state national champions and impact on global competition. SOEs on average have lower rates of return and higher leverage than private competitors, and they have continued to produce when faced with falling profitability. The OECD is concerned that this may have contributed to over-capacity and broader systemic risks in sectors such as steel and petroleum (OECD 2017c). This asymmetric competitive landscape may encourage other governments towards protectionism, in a world where agreement and regulation in the common interest is less effective.

**Natural Capital and the Corporation**

It is at this very time when the competitive forces of the global economy are at their most uncertain, and world market volatility at its least predictable, that the corporations and governments of the world must confront an impending reality of immense significance: the the economic activity and growth of the last two centuries of industrialism have left the planet in a vulnerable state of climate change and environmental danger. Without urgent and immediate action we are placing at risk the environment and the ecology of the world for future generations. Climate change has reminded industrial civilisation we have to reconnect with the wisdom which primitive human civilisations possessed thousands of years ago, that first and foremost we must have regard for our natural environment if we are to continue to survive. The realisation that natural capital is not a free good, an externality to be ruthlessly exploited at will in the generation of financial wealth, is a shock that corporations and governments worldwide have had to absorb (Helm 2015).

Natural capital “refers to the elements of nature that produce value or benefits to people (directly or indirectly) such as the stock of forests, rivers, land, minerals and oceans, as well as the natural processes and functions that underpin their operation” (NCC 2013:10; Barbier 2011; Helm and Hepburn 2013). While human culture has celebrated the majesty and beauty of this natural capital, this has not prevented industrial civilisations from destroying our physical environment and ecology with almost reckless abandon. “The Earth’s natural capital yields an annual dividend of resources that form the bedrock of the human economy and the life support system for the planet’s inhabitants. However, as the world’s population grows, its cumulative consumption is increasingly biting into that productive capital” (Hackmann and Boulton (2016:12).

The impact of human activity is transmitted globally through the oceans, atmosphere, and economy. Conversely these global systems have a local impact that varies according to geography in a complex relationship between social and biological and geophysical processes that have reconfigured the ecology of the world. “On account of multiple interdependences and non-linear, chaotic relationships that unfold differently depending on context, this coupling means that attempts to address a problem affecting one aspect of this ecology necessarily have implications for others” (Hackmann and Boulton (2016:12). This presents a central challenge to decouple economic growth from any further damaging environmental impact. It is possible to achieve this decoupling with the rapid emergence of new renewable forms of energy and other sustainable technologies.

Successive United Nations Conferences climaxing in the COP 21 agreement in Paris in 2015 have committed governments throughout the world to sustainable development, which was originally defined as, “A process of change in which the exploitation of resources, the direction of investments, the orientation of technological development, and institutional change are all in harmony and enhance both current and future potential to meet human needs and aspirations” (WCED 1987). Corporations, as the largest economic entities in existence, which have the greatest impact on emissions, have a profound obligation to respond to this sustainability challenge, and many corporations have embarked on fulfilling this commitment. Both at government and corporate level, policies are beginning to be introduced around the world to progressively and substantially reduce carbon emissions towards zero before the end of the century in order to keep global warming to a maximum of two degrees (IPCC 2014). Decarbonising development will be the greatest challenge of the 21st century (World Bank 2015). This is an imperative which financial markets and institutions are beginning to accept and to pursue (Carney 2015; OECD 2017d ; EIU 2017).

This amounts to a new sustainability industrial revolution based on renewable energy and green technology which will prove as all-encompassing as earlier industrial revolutions. This will include new green ideas, behaviours, products and processes contributing to reducing emissions, relieving the environment, and improving the ecology. Corporations will become increasingly engaged in creating the elements of the *circular* economy replacing a *linear* economy that defines its existence by converting natural resources into pollution and waste. In contrast the *circular* economy seeks to maintain and enhance the natural environment, through a circular process of using only renewable resources and eliminating emissions and waste (Murray et al 2017; Webster 2017).

This systemic and compelling commitment to reducing emmissions and containing climate change will involve the investment, strategies, operations, products and markets of all corporations including those engaged in finance, resources, agriculture, energy, construction, manufacturing, and transport. It will necessitate the transformation and integration of global value chains for sustainability.

**Conclusion**

The corporation since its inception has demonstrated a remarkable capacity for adaptation and evolution as new threats to its existence and operations occurred. Large business corporations have provided the ambition and dynamism for the most dramatic advances in the industrial economy, and maintained the central thrust for the building of the global market economy. This historical process began with the colonial trading corporations, followed by the giant international resources companies, and the vast manufacturing corporations of the 20th century. Towards the end of the last century the rise of the telecoms and pharmaceutical companies was apparent, with the increasingly clear ascendancy of international financial corporations. At the beginning of the 21st century the technology platform companies are becoming ubiquitous in their aspirations and capacity to transform the global economy. At each stage in the successive developments in corporate activity, structure and impact the very existence and purpose of corporations has been challenged. The interests served by the corporation have continuously been found to be too narrow, and the responsibility exercised by the corporation too limited.

Today *the licence to operate* of contemporary corporations continues to be contested. This profound challenge will prove the greatest test of purpose, viability, performance and relevance the corporation has faced since its inception. The reason corporations will be tested more seriously than ever before, is that we have reached the limits of the capacity of the earth to sustain economic and industrial development as we have experienced it for the last two hundred years. Both socially and environmentally the limits to conventional economic growth have been reached. The enterprise that corporations must now commit to, with even more ingenuity and inspiration than exhibited in the past, is the challenge of becoming sustainable, and working in support of, rather than destroying, the natural and social environment. To achieve success in this great venture, the reinvention of the corporation itself will be required.

**REFERENCES**

Aglietta, M., & Reberioux, A. (2005) *Corporate Governance Adrift: A Critique of Shareholder Value*, Cheltenham: Edward Elgar

Aguilera,R.V., D.E. Rupp, C.A. Williams, & J.Ganapathi, (2007) Putting the S Back in Corporate Social Responsibility: Multilevel Theory of Social Change in Organisations, *Academy of Management Review*, 32(3), 836–863

Aguilera, R.V.; L.R. Kabbach-Castro; J.H. Lee; and J. You, (2012)Corporate Governance in Emerging Markets*, In Capitalisms and Capitalism in the Twenty-First Century*, ed. G. Morgan and R. Whitley, 319–344. Oxford: Oxford University Press

Alchian,A.A., and H. Demsetz (1972) Production, Information Costs, and Economic Organization. *American Economic Review* LXII, no. 5 (December): 777-795

Alchian, A. A., & Demsetz, H. (1973) The Property Right Paradigm, *The Journal of Economic History*, 33(1), 16–27

Amann, E., and J. Cantwell, eds. (2012) *Innovative Firms in Emerging Market Countries,* Oxford: Oxford University Press

Aoki, M. (2010) *Corporations in Evolving Diversity,* Oxfrod University Press

Arthur, W.B. (2009) *The Nature of Technology: What It Is and How It Evolves*, New York, NY: Simon and Schuster

Baars, G. and Spicer, A. (2017) *The Corporation: A Critical, Multi-Disciplinary Handbook,* Cambridge University Press

Baker, M. (2011) Foreword to the second edition of W.B. Werther and D. Chandler, *Strategic Corporate Social Responsibility: Stakeholders in a Global Environment*, Sage Publications, p. xvii

Barker, S., (2013) *Directors’ Duties in the Anthropocene – Liability for Corporate Harm Due to Inaction on Climate Change*, Corporate Law, Economics, and Science Association, 9, Dec.

Barker, S., Baker-Jones, M., Barton, E., and Fagan, E. (2016) Climate Change and the Fiduciary Duty of Pension Fund Trustees – Lessons from the Australian Law, *Journal of Sustainable Finance & Investment,* 6:3, 211-244

Barbier, E.B. (2011) *Capitalizing on Nature: Ecosystems as Natural Assets,* Cambridge University Press

BEIS (2016) Corporate Governance Reform Green Paper, UK Government, Department for Business, Energy and Industrial Strategy, [https://www.gov.uk/government/uploads/system/uploads/attachment\_data/file/584013/corporate-governance-reformgreen- paper.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/584013/corporate-governance-reformgreen-%20paper.pdf)

BEISC (2017) *Corporate Governance,* Third Report of Session 2016-2017, House of Commons Business, Energy and Industrial Strategy Committee, London: House of Commons <https://publications.parliament.uk/pa/cm201617/cmselect/cmbeis/702/702.pdf>

Benn, S. (2012). Governance for Sustainability: Challenges for Theory and Practice, in T. Clarke & D. Branson (Eds.), *The Sage Handbook of Corporate Governance*, London: Sage, pp. 612–627

Berle,A.A., Foreword, Edward S. Mason, (editor) *The Corporation in Modern Society*, Harvard University Press, 1959, p x

Berle, A. A. Jr., & Means, G. (1932) *The Modern Corporation and Private Property*, New edition, Brunswick, USA, London, UK: Transaction Publishers

Berthelot, S., Cormier, D., & Magnan, M. (2003) Environmental disclosure research: Review and synthesis*, Journal of Accounting Literature*, 22, 1–44

Blair, M.M. & L. Stout (1999) A Team Production Theory of Corporate Law, 85,*Virginia Law Review* 247-328

BlairM.M. & L. Stout (2006) Specific Investment and Corporate Law, *European Business Organisation Law Review*, 7,2, 473- 500

BCG (2016) *Global Leaders, Challengers and Champions: The Engines of Emerging Markets*, Boston Consulting Group <http://image-src.bcg.com/Images/BCG-Global-Leaders-Challengers-and-Champions-Jun-2016-Revised_tcm9-63696.pdf>

Biondi, Y, Canziani, A. and Kirat, T (2007) *The Firm as an Entity: Implications for Economics, Accounting and the Law,* London: Routledge

Biondi, Y. (2013) The Governance and Disclosure of the Firm as an Enterprise Entity, *Seattle University Law Review*, 36, 391- 416

Frank Bold (2016) *Global Roundtable Series: Corporate Governance for a Changing World,* Frank Bold/CASS Business School <http://www.purposeofcorporation.org/compilation-executive-summaries-global-roundtable-series.pdf>

Bower, J.L. and Paine, L.S. (2017) The Error at the Heart of Corporate Leadership, *Harvard Business Review,* May-June 2017

Braithwaite, J. (2008) Regulatory Capitalism, Edward Elgar, 2008; J. Braithwaite (2013) Flipping Markets to Virtue with Qui Tam and Restorative Justice, *Accounting, Organizations and Society*, 38(s 6–7):458–468 · August

CAMAC (2006) *The Social Responsibility of Corporations*, Report, Corporations and Markets Advisory Committee, Australian Government [www.camac.gov.au/camac/camac.nsf/byHeadline/PDFFinal+Reports+2006/$file/CSR\_Report.pdf](http://www.camac.gov.au/camac/camac.nsf/byHeadline/PDFFinal%2BReports%2B2006/%24file/CSR_Report.pdf)

Cai, P. (2017) *Understanding China’s Belt and Road Initiative,* Sydney: Lowy Institute<https://www.lowyinstitute.org/sites/default/files/documents/Understanding%20China%E2%80%99s%20Belt%20and%20Road%20Initiative_WEB_1.pdf>

Carlson, B. (2017) Think Global to Avoid Shrinking U.S. Stock Market, *Bloomberg.com*, 17 March 2017

Carney, M. (2015) *Breaking the Tragedy of the Horizon – Climate Change and Financial Stability*, 29 September 2015, Bank of England <http://www.bankofengland.co.uk/publications/Documents/speeches/2015/speech844.pdf>

Chandler, A. D. (1969) *Strategy and Structure: Chapters in the History of American Industrial Enterprise,* MIT Press

Chandler, A. D. (1977) *The Visible Hand, Managerial Revolution in American Business*. Cambridge, MA: The Belknap Press

Chandler, A.D. (1990) *Scale and Scope – The Dynamics of Industrial Capitalism,* Harvard University Press, Cambridge

Charter, M. and Clark, T. (2007) *Sustainable Innovation*, The Center for Sustainable Design

Cioffi, J. W. (2011) Fiduciaries, Federalization, and Finance Capitalism: Berle’s Ambiguous Legacy and the Collapse of Countervailing Power, *Seattle University Law Review*, 34, 1081–1120

Claessens, S., S. Djankov, and L. Lang (2000) The Separation of Ownership and Control in East Asian Corporations, *Journal of Financial Economics* 58: 81–112

Claessens, S., and J. Fan, (2002) Corporate Governance in Asia*, International Review of Finance 3*, no. 2: 71–103

Claessens, S., and B. Yurtoglu, (2012) *Corporate Governance and Development—An Update*, 10 Focus. Washington, DC: International Finance Corporation

Clarke, T. (1998) The Stakeholder Corporation: A Business Philosophy for the Information Age, *Long Range Planning*, *International Journal of Strategic Management*, 31(2), 182–194

Clarke, T. and Chanlat, J-F. (2009) *European Corporate Governance*, London and New York: Routledge

Clarke, T. & Branson, D. (2012) *Sage Handbook of Corporate Governance*, London: Sage

Clarke, T. (2013) Deconstructing the Mythology of Shareholder Value**,** *Accounting, Economics, and Law* 1, pp. 15-42

Clarke, T. (2014) The Impact of Financialisation on International Corporate Governance, *Law and Financial Markets Review*, 8, 1, 39-51

Clarke, T. (2015) The Long Road to Reformulating the Understanding of Directors Duties: Legalizing Team Production Theory? *Seattle University Law Review*, 38, 437-490

Clarke, T. (2016) The Widening Scope of Director’s Duties: The Increasing Impact of Corporate Social and Environmental Responsibility, *Seattle University Law Review*, 39, 557-602

Clarke, T. (2017) *International Corporate Governance,* 2nd ed. London: Routledge

Clarke, T. and Boersma, M. (2017) The Governance of Global Value Chains: Unresolved Human Rights, Environmental and Ethical Dilemmas in the Apple Supply Chain in China, *Journal of Business Ethics*, DOI 10.1007/s10551-015-2781-3

Clarke, T. and Lee, K. (2017) *Innovation in the Asia Pacific: From Manufacturing to Knowledge Economies,* Singapore: Springer

Coase, R. (1937) The Nature of the Firm, 4 *Economica* 386-405

Crane, A., McWilliams, A.,   Matten, D.,  Moon, J. and  Siegel, D. (2008) *The Oxford Handbook of Corporate Social Responsibility,* Oxford University Press

Crane, A., Matten, D., and Spence, L.J. (2013) *Corporate Social Responsibility: Readings and Cases in a Global Context,* Routledge

Credit Suisse (2017) *The Incredible Shrinking Universe of Stocks: The Causes and Consequences of Fewer US Equities,* Global Financial Strategies, www.credit-suisse.com

Crouch, C. and C. Maclean, (2011) *The Responsible Corporation in the Global Economy* , OUP

Coase, R. H. (1960) The Problem of Social Cost, *Journal of Law and Economics*, 3, 1–44

Deakin, S., and Whittaker, D.H. (2007) Re-embedding the Corporation? Comparative Perspectives on Corporate Governance, Employment Relations, and Corporate Social Responsibility, *Corporate Governance An International Review,* 15, 1, 1-4

Davis, G.F. (2009) *Managed by the Markets: How Finance Reshaped America* (New York: Oxford University Press, 2009

Davis, G.F. (2013) After the Corporation, *Politics & Society,* 41(2) 283–308

Davis, G.F. (2017) Post-Corporate: The Disappearing Corporation in the New Economy, *Third Way,* <http://www.thirdway.org/report/post-corporate-the-disappearing-corporation-in-the-new-economy>

S. Deakin & D.H. Whittaker, (2007). Re-Embedding the Corporation? Comparative Perspectives on Corporate Governance, Employment Relations and Corporate Social Responsibility, *Corporate Governance: An International Review* 15, 1–4

Deloitte (2015) *Industry 4.0 – Challenges and Solutions for the Digital Transformation and Use of Exponential Technologies,* Zurich: Deloitte AG <https://www2.deloitte.com/content/dam/Deloitte/ch/Documents/manufacturing/ch-en-manufacturing-industry-4-0-24102014.pdf>

Dodd, E. (1932) For Whom are Corporate Managers Trustees, *Harvard Law Review* 45, 1145

Donaldson, T. and E. Lee, (1995) The Stakeholder Theory of the Corporation: Concepts, Evidence and Implications, *Academy of Management Review*, 20, 1, January, 65-91

EIO (The Eco-Innovation Observatory) (2015) *Methodological Report,* <http://www.ecoinnovation.eu>

EIU (2017) *The Road to Action: Financial Regulation Addressing Climate Change*, Economist Intelligence Unit, The Economist

Ethical Consumer (2014)*Tax Avoidance by Internet Companies,*

<http://www.ethicalconsumer.org/ethicalreports/internetreport/taxavoidance.aspx>

European Commission (2016) *State Aid: Ireland Gave Illegal Benefits to Apple Worth up to €13 billion,* European Commission

European Commission (2017) *Anti-Trust Commission Takes Further Steps in Investigation Alleging Google’s Comparison Shopping and Advertising Related Practices Breach EU Rules,* European Commission, <http://europa.eu/rapid/press-release_IP-16-2532_en.htm>

Fazio, S. (2008) Corporate Governance, Accountability and Emerging Economies, *Company Lawyer,* 29, no. 4, 105–113

Foer, F. (2017) *World Without Mind: The Existential Threat of Big Tech*, Penguin

Foroohar, R. (2016) *Makers and Takers: The Rise of Finance and the Fall of American Business*, Crown Business

Foroohar, R. (2017) Too Many Businesses Want a Piece of the Financial Action, *Financial Times,* 15 May 2017

Financial Reporting Council*, Stewardship Code*, London: FRC (2012) https://www.frc.org.uk/Our-Work/Publications/Corporate- Governance/UK-Stewardship-Code-September-2012.pdf

Galbraith, J. K. (1967) *The New Industrial State*, Princeton and Oxford: Princeton University Press

Galbraith, J. K. (1952) *American Capitalism: The Concept of Countervailing Power*, Boston, MA: Houghton Mifflin Company

E. Garriga, E.,& D. Mele, (2004) Corporate Social Responsibility Theories: Mapping the Territory, *Journal of Business Ethics*, 53, 51–71

Greenberg, E., Hirt, M. and Smit, S., (2017) The Global Forces Inspiring a New Narrative of Progress, *McKinsey Quarterly*, April 2017

K. Greenfield (2006 *The Failure of Corporate Law*, 41-71

K. Greenfield (2009) Corporate Law and the Rhetoric of Choice, Law & Economics: Toward Social Justice, *Research in Law and Economics*, 24, 61-89

Gill, A.G. (2008) Corporate governance as social responsibility: A research agenda, *Berkeley Journal of International Law*, 26, 452–478

Gray, R., Kouhy, R., & Lavers, D. S. (1995) Constructing a research database of social and environmental reporting by UK companies. *Accounting Auditing and Accountability Journal,* 8, 78–101

Hackmann H. and Boulton, G. (2016) *Science for A Sustainable and Just World: A New Framework for Global Science Policy*, *UNESCO Science Report – Towards 2030*, UNESCO Publishing, pp12-14

Hall, P.A., and D.W. Soskice (2001) *Varieties of Capitalism: The Institutional Foundations of Comparative Advantage*, Oxford: Oxford University Press

Halme, M. & M. Huse, (1997) The Influence of Corporate Governance, Industry and Country Factors on Environmental Reporting. Scandinavian Journal of Management, 13(2), 137–157

Hayek, F. (1943) The Road to Serfdom, Routledge

Helm, D. (2015) *Natural Capital: Valuing our Planet,* Yale University Press

Helm, D. and Hepburn, C. (2013) *Nature in the Balance: The Economics of Biodiversity,* Oxford University Press

Henwood, D. (1998) *Wall Street*, London and New York, NY: Verso

Margaret Hodge (2007) *Introduction to Companies Act of 2006: Duties of Company Directors*, Ministerial Statements, UK Department of Trade and Industry

Hughes, J. (2017) BlackRock and Fidelity Put China’s Communist Party into Company Laws, *Financial Times,* 7 September 2017

IPCC (2014) Climate Change 2014: Impacts, Adaptation, and Vulnerability, *Intergovernmental Panel on Climate Change* <https://www.ipcc.ch/pdf/assessment-report/ar5/wg2/ar5_wgII_spm_en.pdf>

Ireland,P. (2000) Defending the Rentier: Corporate Theory and the Reprivatization of the Public Company, in J. Parkinson, A. Gamble and G. Kelly (eds), *The Political Economy of the Company*,141-75

Ireland, P. (2008) Financialization and Corporate Governance, *Northern Ireland Legal Quarterly*, 60(1), 1–34

Jang, E.K., Park, M.S., Roh, T.W. and Han, K.J, (2015) Policy Instruments for Eco-Innovation in Asian Countries, *Sustainability,* 7, 12586-12614

Jensen, M. C., & Meckling, W. H. (1976) Theory of the Firm: Managerial Behavior, Agency Costs and Capital Structure. *Journal of Financial Economics*, 3,4, 305-360 Retrieved from <http://ssrn.com/abstract594043>

Jensen, M. C., & Meckling, W. H. (1978) Can the Corporation Survive? *Financial Analysts Journal,* 31(1). Retrieved from <http://ssrn.com/abstract5244155>

Jensen, M.C. (2002) Value Maximization and the Corporate Objective Function, in J. Andriof, S. Waddock, S. Rahman, and B. Husted*,* eds, *Unfolding Stakeholder Thinking:* *Theory Responsibility and Engagement*, Greenleaf Publishing, pp. 65−84

Jianquing, J. (2015) ICBC Chairman On the Overseas Expansion of China’s Banking Industry, *Central Banking,* 9 June 2015 <https://www.centralbanking.com/central-banking/feature/2412016/overseas-expansion-of-china-s-banking-industry>

 Jose, A. & S. M. Lee (2007). Environmental Reporting of Global Corporations: A Content Analysis Based on Website Disclosures, *Journal of Business Ethics*, 72, 307–321

Kay, J. (2012) *The Kay Review of UK Equity Markets and Long Term Decision-making,* Department forBusiness, Innovation and Skills, UK Government

Kaysen, C. (1996) *The American Corporation Today: Examining the Questions of Power and Efficiency at the Century’s End*, Oxford University Press

Kearney, C. (2012) Emerging Markets Research: Trends, Issues and Future Directions, *Emerging Markets Review,* 13: 159–183

Keay, A. (2010) The Duty to Promote the Success of the Company: Is it Fit for Purpose? (August 20, 2010). University of Leeds School of Law, Centre for Business Law and Practice Working Paper. Available at SSRN: [https://ssrn.com/abstract=1662411](https://ssrn.com/abstract%3D1662411) or [http://dx.doi.org/10.2139/ssrn.1662411](https://dx.doi.org/10.2139/ssrn.1662411)

Kenny, M. and Zysman, J. (2016) What is the Future of Work? Understanding the Platform Economy and Computational-Intensive Automation, *BRIE Working Papers* 2016-9, Berkeley Roundtable on the International Economy, Berkeley University

Kemp, R. and Pontoglio, S. (2011) The innovation effects of environmental policy instruments—A typical case of the blind men and the elephant? *Ecological Economics,* 2011, 72, 28–36

Keys,T. and T. Malnight (2010) Corporate Clout: The Influence of the World’s 100 Largest Economic Entities, Strategy Dynamics Global Limited, <https://www.scribd.com/document/88244222/Corporate-Clout-the-Worlds-100-Largest-Economic-Entities>

Kinderman,D. (2011) Free Us Up So We Can Be Responsible! The Co-evolution of Corporate Social Responsibility and Neo-Liberalism in the UK 1977–2010, 10 *Socio-Economic Review* 29

Kogut, B. (2012) *The Small Worlds of Corporate Governance*, vol. 1. Cambridge, MA: MIT Press

Krippner, G. (2012) *Capitalizing on Crisis: The Political Origins of the Rise of Finance*, Harvard University Press

Lazonick, W. (2012) In the Name of Shareholder Value: How Executive Pay and Stock Buy-Backs Are Damaging the US Economy, in, T. Clarke and D. Branson, *The Sage Handbook of Corporate Governance*, (London: Sage, 2012) pp 476-495

Lazonick, W. (2017) *Innovative Enterprise Solves the Agency Problem: The Theory of the Firm, Financial Flows, and Economic Performance,* Working Paper No. 62, Institute for New Economic Thinking, 28 August 2017 <https://www.ineteconomics.org/research/research-papers/innovative-enterprise-solves-the-agency-problem>

Lee, T.B. (2015) The IPO is Dying: Marc Andreessen Explains Why, Vox.com <https://www.vox.com/2014/6/26/5837638/the-ipo-is-dying-marc-andreessen-explains-why>

Lee, K. (2013) *Schumpeterian Analysis of Economic Catch-Up*. Cambridge: Cambridge University Press

Lim, T. W., Chan, H., Tseng, K., and Lim, W. (2016) *China’s One Belt One Road Initiative,* World Scientific

Louca, F. and Mendonca, S. (2002) Steady Change: the 200 Largest US Manufacturing Firms Throughout the 20th Century, *Industrial and Corporate Change,* 11, 4, 817-845

Lucas, L. and Wells, P. (2017) China’s Big Tech Trio Look to de-Faang US Rivals, *Financial Times,* 2 June 2017

Mason, E. (1959) (editor) *The Corporation in Modern Society*, Harvard University Press

Mason, J. (2015) *Understanding Short-Termism: Questions and Consequences*, New York, Roosevelt Institute

Matten, D. & A. Crane, A. (2005) Corporate citizenship: Toward an Extended Theoretical Conceptualization, *Academy of Management Review*, 30(1), 166–179

Mayer, C. (2013*) Firm Commitment: Why the Corporation is Failing Us and How to Restore Trust in It*, Oxford, UK: Oxford University Press

Mayer, C. (2017) Who’s Responsible for Irresponsible Business? An Assessment, *)xfrod Review of Economic Policy,* 33, 2, 157-175

McBarnet,D., A.Voiculescu, & T. Campbell (Eds.) (2007) *The New Corporate Accountability: Corporate Social Responsibility and the Law*, Cambridge: Cambridge University Press

A. McWilliams, A., & D. Siegel, (2000) Corporate social responsibility and financial performance: correlation or misspecification? *Strategic Management Journal*, 21, 603–609

MGI (2014) *Global Flows in a Digital Age: How Trade, Finance, People and Data Connect the World Economy*, San Francisco, CA: McKinsey and Company

MGI (2016) *Digital Globalisation: The New Era of Global Flows,* McKinsey Global Institute

MGI (2017) *Artificial Intelligence: The Next Digital Frontier,* McKinsey Global Institute

Micklethwhait, J. and A.Wooldridge (2003) *The Company: A Short History of a Revolutionary Idea*, Random House

Mitchell, T. (2017) Chinese Communist Party Seek Corporate Control Before Reform, *Financial Times,* 15 August 2017

Modern Company Law Review Steering Group (2000) UK Department of Trade and Industry, *Modern Company Law for a Competitive Economy: Developing the Framework*, UK Department of Trade and Industry

Morrow, P., Gregor, F. and Veldman, J. (2016) *Revisioning the Corporation: A Short Guide to Sustainable Corporate Governance,* Frank Bold/CASS Business School <http://www.purposeofcorporation.org/pocket-guide-to-corporate-governance.pdf>

Murray, A., Skene, K. and Haynes, K. (2017) The Circular Economy: An Interdisciplinary Exploration of the Concept and Application in a Global Context, *Journal of Business Ethics,* 140, 369-380

NCC (2013) *The State of Natural Capital: Towards a Framework for Measurement and Evaluation,* Natural Capital Committee <http://socialsciences.exeter.ac.uk/media/universityofexeter/collegeofsocialsciencesandinternationalstudies/leep/documents/2013_ncc-state-natural-capital-first-report.pdf>

Niblett, R. (2017) Liberalism in Retreat*, Foreign Afairs,* January-February

Nitkin, D. & L.J. Brooks (1998) Sustainability auditing and reporting: The Canadian experience*, Journal of Business Ethics*, 17, 1499–1507

O’Brien, J. and G. Gilligan (2013) *Integrity, Risk and Accountability in Capital Markets: Regulating Culture,* Oxford: Hart Publishing

OECD (2009) *Sustainable Manufacturing and Eco-Innovation: Towards a Green Economy,* Paris: OECD

OECD (2016) *New Forms of Work in the Digital Economy,* Paris: OECD

OECD (2017a) *OECD Digital Economy Outlook 2017,* Paris: OECD

OECD (2017b) *The Size and Sectoral Distribution of Sate Owned Corporations,* OECD Publishing, Paris

OECD (2017c) *Business and Finance Outlook*, OECD Publishing, Paris

OECD (2017d) *Investing in Climate, Investing in Growth,* OECD Publishing, Paris

M. Orlitzky, F.L Schmidt, & S.L Rynes (2003) Corporate Social and Financial Performance, *Organization Studies*, 24(3), 403–441

E. Ostrom, (1990) *Governing the Commons: The Evolution of Institutions for Collective Action,* Cambridge University Press

Parkinson, J. (2003) Models of the Company and the Employment Relationship, *British Journal of Industrial Relations,* 41,3, 481-509

Peng, M. W. and Sauerwald, S, (2013) Corporate Governance and Principal-Principal Conflicts, in, M.Wright, D.Siegel, K.Keasey, and I. Filatochev, *The Oxford Handbook of Corporate Governance,* OUP, 658-672

Penrose, E. (1994) Strategy/Organization and the Metamorphosis of the Large Firm, reprints in, *Organization Studies* 2008; 29; 1117

PJC (2006) *Corporate Responsibility: Managing Risk and Creating Value*, Parliamentary Joint Committee on Corporations and Financial Services, Parliament of Australia

Polyani, K. (1944) *The Great Transformation*, Beacon Press, 2001

UK Parliament, Corporate Governance Inquiry, http://www.parliament.uk/business/committees/committees-a-z/commonsselect/ business-energy-industrial-strategy/news-parliament-2015/corporate-governance-inquiry-launch-16-17/

Phillips, A. and R.E. Freeman, (2010) S*takeholders*, Cheltenham: Elgar

Porter, M. and Kramer, R. (2011) Creating Shared Value, *Harvard Business Review,* 89, 1-2, 62-77

Porter, M. (1992) *Capital Disadvantage: America’s Failing Capital Investment System*, Washington: US Council on Competitiveness

Poteete, A. M. Janssen, and E. Ostrom, (2011*) Working Together: Collective Action, the Commons, and Multiple Methods in Practice*, Princeton, NJ: Princeton University Press

Redmond, R. (2012) Directors’ duties and corporate social responsiveness, *UNSW Law Journal,* 35, 317–340

Reich, R. (2016) *Saving Capitalism: For the Many, Not the Few*, New York, Alfred A. Knopf

Rennings, K. (2000) Redefining innovation—Eco-innovation research and the contribution from ecological economics, *Ecological Economics*, 2000, 32, 319–332

Reuver, M., Sorenson, C. and Basole, R. (2017) The Digital Platform: A Research Agenda, *Journal of Information Technology*

Russo, M.V. & N.S. Harrison, (2005) Organizational Design and Environmental Performance: Clues from the Electronics Industry, *Academy of Management Journal*, 48(4), 582–593

Santiso, J. (2013) *The Decade of Multilatinas*, Cambridge: Cambridge University Press

Sarkar, A.N. (2013) Promoting Eco-innovations to Leverage Sustainable Development of Eco-industry and Green Growth, *International Journal of Ecosystem Ecological Science*, 2013, 3, 171–224

Schumpeter, J.(1942) *Capitalism, Socialism and Democracy*, fifth edition Routledge 1994

Seabrooke, L. and Wigan, D. (2017) *Global Tax Battles: The Fight to Govern Corporate and Elite Wealth,* Oxfrod University Press

Seki, T., and T. Clarke (2014) The Evolution of Corporate Governance in Japan: The Continuing Relevance of Berle and Means, *Seattle University Law Review,* 37: 717–747

Sen, A. (2009) Introduction, in Adam Smith, *The Theory of Moral Sentiments* (1759); Penguin, 2009 edition), vii-xxiv

Smith, A. and Tennant, K.D. (2016) Stock Markets and Financial Capitalism, in, J.F. Wilson, S. Toms, A. de Jong, and E. Buchnea, *The Routledge Companion To Business History,* London: Routledge

Sorkin, A. R. (2016) “CEOs meet in secret over sorry state of public companies,” *New York Times*, 21 July 2016. <http://www.nytimes.com/2016/07/21/business/dealbook/ceos-meet-insecret-over-sorry-state-of-public-companies.html>

Stephens, P. (2017) Banish Myths About Web Freedom, *Financial Times,* 9 June 2017

Stout, L. (2012) *The Shareholder Value Myth*, San Francisco: Berrett–Koehler

R. Sullivan (2015) *Fiduciary Duty in the 21st Century*, United Nations Development Programme, <http://www.unepfi.org/fileadmin/documents/fiduciary_duty_21st_century.pdf>

Summerhays, G. (2017) Australia’s New Horizon: Climate Change Challenges and Prudential Risk, APRA 17 February 2017 <http://www.apra.gov.au/Speeches/Documents/ICA%20Speech%20Geoff%20Summerhayes%2017%20February%202017.pdf>

UK Department of Trade and Industry (2005) *Company Law Reform*, 3.3, UK Government

Useem, W. (1996) *Investor Capitalism: How Money Managers Are Changing the Face of Corporate America* (New York: Basic Books,1996)

Veldman, J. and Willmott, H. (2013) What is the Corporation and Why Does it Matter? *Management ,* 16, 5, 605-620

W. Visser (2011) *The Age of Responsibility: CSR 2.0 and the New DNA of Business*, Wiley, United Kingdom

Weinstein, O. (2012) Firm, Property and Governance: From Berle and Means to the Agency Theory, and Beyond, *Accounting, Economics and Law: A Convivium*, 2(2).

Wildau, G. and Hook, L. (2017) China Mobile Payment Dwarf those in the US as Fintech Booms, Research Shows, *Financial Times,* 14 February 2017 <https://www.ft.com/content/00585722-ef42-11e6-930f-061b01e23655?mhq5j=e6>

William,C. and P. Zumbansen (2011) *The Embedded Firm: Corporate Governance, Labor, and Finance Capitalism,* Cambridge University Press

Williamson,O.E. (1985) *The Economic Institutions of Capitalism: Firms, Markets and Relational Contracting*, The Free Press

Williamson,O.E. (2002) The Theory of the Firm as Governance Structure: From Choice to Contract, *The Journal of Economic Perspectives*, 16,3, 171-195

van der Zwan, N. (2013) Making Sense of Financialization, *Socio-Economic Review* 12, 99

Wolff, E. N. (2012). *The Asset Price Meltdown and the Wealth of the Middle Class*, National Bureau of Economic Research Working Paper No 18559, New York: New York University <http://www.ecineq.org/ecineq_bari13/FILESxBari13/CR2/p17.pdf>

WCED (World Commission on Environment and Development) (1987) *Report of the World Commission on Environment and Development: Our Common Future*, <http://www.undocuments.net/our-common-future.pdf>

Webster, K. (2017) *The Circular Economy: A Wealth of Flows,* Ellen MacArthur Foundation Publishing

Weinstein, O. (2012) Firm, Property and Governance: From Berle and Means to the Agency Theory, and Beyond, *Accounting, Economics and Law: A Convivium*, 2(2).

World Bank (2016) The World’s Top 100 Economies: 31 Countries and 69 Corporations*, People, Spaces,* Deliberation, The World Bank <https://blogs.worldbank.org/publicsphere/world-s-top-100-economies-31-countries-69-corporations>

World Bank (2015) *Decarbonizing Development: Three Steps to a Zero Carbon Future,* Washington: World Bank Group <https://openknowledge.worldbank.org/handle/10986/21842>

Yellen, J. (2014) Perspectives on inequality and opportunity from the survey of consumer finances, *Conference on Economic Opportunity and Inequality*, 17 October 2014, Federal Reserve Bank of Boston, MA.

Young, M., M. Peng, D. Ahlstrom, G. Bruton, and Y. Jiang (2008) Corporate Governance in Emerging Economies: A Review of the Principal-Principal Perspective, Journal of *Management Studies*, January, 15 (1), 196-220

Zumbansen, Peer C. and Williams, Cynthia A., (2011) *The Embedded Firm: Corporate Governance, Labor, and Finance Capitalism* (September 26, 2011). Osgoode CLPE Research Paper No. 18/2011. Available at SSRN: [https://ssrn.com/abstract=1934067](https://ssrn.com/abstract%3D1934067) or [http://dx.doi.org/10.2139/ssrn.1934067](https://dx.doi.org/10.2139/ssrn.1934067)