

Sustainability-oriented Business Model Innovation:: Context and Drivers

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Sustainability-oriented Business Model Innovation: Context and Drivers

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Summary

This study outlines a systemic review of the social and economic transformations that have been inducing the business to reconsider its traditional strategies and innovate to become sustainable. In doing so, the study adopts an original approach, focusing on the evolution in the socio-economic context, imposed by globalisation first and by the Great Recession afterwards. Hence, the review covers a wide range of literature and subjects, including political science, sociology, economics, finance and strategic management. Departing from the contextual picture, the study identifies the main drivers of the innovation of the business models, from the adoption of voluntary standards to the acknowledgement of the need to lengthen strategic time horizons. What emerges from the review is that, if business' primary concern was initially to safeguard its declining reputation under competitive pressure, it perceives sustainability today as a necessary condition to survive the deep transformation of the economy.

Keywords: Societal Changes, Business Model Innovation, Voluntary Regulation, International Standards, Globalisation, Financial Crisis

JEL Classification: M14, M48, Q56, F53

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Abstract:

This study outlines a systemic review of the social and economic transformations that have been inducing the business to reconsider its traditional strategies and innovate to become sustainable. In doing so, the study adopts an original approach, focusing on the evolution in the socio-economic context, imposed by globalisation first and by the Great Recession afterwards. Hence, the review covers a wide range of literature and subjects, including political science, sociology, economics, finance and strategic management. Departing from the contextual picture, the study identifies the main drivers of the innovation of the business models, from the adoption of voluntary standards to the acknowledgement of the need to lengthen strategic time horizons. What emerges from the review is that, if business' primary concern was initially to safeguard its declining reputation under competitive pressure, it perceives sustainability today as a necessary condition to survive the deep transformation of the economy.

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Introduction

The topic of sustainable innovation of the business models – the so-called “Business Case for Sustainability” - has been abundantly investigated, both through theoretical and empirical studies (Salzmann et al., 2005; Whelan and Fink, 2016). Most research on the theme focused on the economic rationale of the business’ pursuit of social and environmental objectives, trying to confirm or discard what traditional economic theories consider a trade-off between social benefits and profit maximisation (Porter and Van der Linde, 1995). However, current transformations occurring in the social and economic systems at global level, especially after the Great Recession, represent a profound evolution of the context in which firms operate, which scholars conceive as a real *transition* towards a sustainable economy (Dunphy, 2011; Garud and Gehman, 2012; Meadowcroft, 2011). In such a transition, the business seems to contribute by embracing an innovative perspective, in which profits and social benefits do not lie on the opposite sides of the balance.

If Friedman (1970) argued that the social responsibility of business be limited to increase its profits, this work aims to illustrate the reasons behind the growing support for a profit-driven response to social and environmental problems. Indeed, firms’ orientation towards sustainability is fostered by drivers concerning the social, economic and political spheres. The contribution of this study is a systemic review of the social and economic transformations that have required business models to innovate to be sustainable. After all, in times of great transformations, a clear vision of the process that has led to the current state of affairs would be helpful to understand future advancements better. Although the drivers of business innovation have been drawn in previous works (Dunphy et al., 2014a; Esty and Winston, 2009a), this study examines in depth the contextual elements behind them. Specifically, it points to globalisation and the Great Recession as the frames of the major social, political and economic transformations at the base of the evolution of the role of business in society and in the way it conceives sustainability.

Globalisation transformed world politics, by limiting the range of influence of nation-states while providing the business with high discretionary power, which amplified stakeholders’ expectations on firms’ responsibilities (Googins, 2013; Keohane, 2005; Osburg, 2013). Nonetheless, unethical practices and business scandals emerged, such that social trust in business declined and anti-corporate protests spread worldwide, enhancing conflicts between business and policy-makers. (Fiorina, 2004; Gjølborg, 2009; Porter and Kramer, 2011; Snider et al., 2003). At the same time, growing wellbeing in

industrialised countries provided citizens with better education attainments and led to value changes, which encouraged a review of priorities toward a better quality of life and criticisms to traditional political institutions (Inglehart, 1977). Also, affluence implied changes in consumption preferences of citizens more concerned about social and environmental issues (Fung, 2002; Gilg et al., 2005) and the growth of movements of collective action (Ruggie, 2007; Wapner, 1995) that political responses, international coordinating bodies and NGOs translated into policies affecting the attitudes of business (Wapner, 1995). The Environmental Kuznets Curve, a reverse U-shaped relationship observed between per capita income and environmental degradation, is an example in this sense. In fact, most scholars explain this empirical evidence as the result of the political pressure exercised by citizens, increasingly concerned about their quality of life, which induced policymakers to limit the externalities of industrial activity through regulatory constraints (Antweiler et al., 1998; Frankel and Rose, 2002; Grossman and Krueger, 1995). Overall, citizens' changing preferences and the pressure from regulators and international organisations, together with reputational risks and peer pressure impose transformations to the business environment. Thus, in the attempt to keep competitiveness, business actors adopted voluntary actions (self-regulation, international certifications, CSR, SRI) to meet private and public expectations, often trying to anticipate regulations to gain competitive advantage (Dunphy, 2011; Vogel, 2008).

The burst of the financial crisis has led to question and redefine the economic principles at the base of the global integration process (Rodrik, 2015). Indeed, in such a context of particular uncertainty, scholars and agents appear more aware of the weaknesses of the financial and economic systems in managing risks, both economic and environmental ones (Burnard and Bhamra, 2011; Diamond and Rajan, 2009). Also, the recession gave a new impulse to grassroots protests against the business and the financial institutions, as the worldwide diffusion of the "Occupy" movements exemplifies (Scholl, 2013). Hence, the years following the financial crisis have witnessed growing attempts by rule-setters and international institutions to design coordinating frameworks to make the economic system more stable in the long-term and resilient to shocks (Davis, 2011; United Nations Environment, 2017). This context has encouraged the business sector to deeply change at its core (Herrera, 2015; Porter and Kramer, 2011), especially recognising the shortcomings of adopting an excessively myopic strategic perspective (Vitols, 2015). The latter has been recognised to be partially induced by the pressure imposed by "impatient" investors and scholars have especially debated about the role of institutional investors on this matter (Barton and Wiseman, 2014; Brossard et al., 2013; Porter, 1992). At any rate, the financial sector is highly influential in inducing and accelerating transformations in the business models, since capital owners are getting more and more aware of the risks that social movements, economic transformations and environmental changes embody for future returns (Ansar et al., 2013;

Mercer, 2015; Weyzig et al., 2014). Overall, it appears that enterprises are concretely adopting measures not only to gain market shares but to improve their resilience, by strengthening their supply chain, adapting to new markets and improving risk assessment to transform risks into opportunities (Petruzzi and Loyear, 2016; World Economic Forum and Oliver Wyman, 2015).

The organisation of the review proceeds in two sections. Section I describes the social, political and economic consequences of globalisation and the response of business; Section II discusses the consequences of the financial crisis on economic beliefs and risk assessment, then it focuses on how these are affecting the financial sector and enterprises' strategies.

Section I

The globalisation reshapes society and economy

Change in the global balance of power.

The economic globalisation has modified the global balance of power, shifted toward the capital, thanks to the latter's higher degree of mobility than labour (Hall and Soskice, 2001). The influence of Trans National Corporations (TNCs) is such that their supply chain management and decisions are determinant in shaping labour practices, environmental and human rights protection worldwide (Vogel, 2008). In fact, capital mobility allows firms to choose where to locate their production according to the most convenient cost structure, credibly threatening governments to move their operations where conditions are more favourable (Gjølberg, 2009). More precisely, it has been argued that market price competition transfers to governments since corporations invest where labour and environmental protection are less restrictive and force countries to compete in a *race-to-the-bottom* in lowering their standards to favour FDIs (Frankel, 2003; Medalla and Lazaro, 2005; Olney, 2013). As opposed to the global mobility of business activities, sovereign authority remains limited to territorial boundaries, giving rise to a governance gap that impedes national governments to manage industrial activities as they could before (Ruggie, 2007). As argued by Keohane (2003), globalisation allows companies to exert their authority at the global level, even without the appropriate legitimation and democratic accountability. However, political attempts to foster international governmental coordination are addressed by supra-national institutions, which lack democratic accountability as well (Grant and Keohane, 2005). In fact, as noted by Alesina and Wacziarg (2000), the transfer of national sovereignty to higher levels of governance is not followed by that of accountability, as the debated case of the European Union exemplifies. The authors claim that, since the preferences of the median voter are not aligned with government choices, nation-states lose political support and citizens lament democratic

deficit, demanding more local autonomy. In their own words, “economic integration leads to political disintegration” (Alesina and Wacziarg, 2000, p.168).

The shift of values, lifestyle and preferences.

The loss of political accountability of national institutions had adverse consequences on citizens’ trust in governments in all advanced democracies. Dalton (2005) furnishes empirical evidence of this downward trend and studies the reasons behind it: political dissatisfaction seems to be due to economic reasons, such as the reshaping of the labour structure led by the dislocation of production, but also to a deeper trend of social modernisation. For the author, the latter explains why political distrust was mostly observed among those at the upper levels of the social pyramid, rather than only the ones who paid the highest costs of globalisation. Social transformations have been abundantly studied by Inglehart (1977), who first introduced the post-materialist theory, claiming that, since the second World War, Western countries experienced a change in the set of values, shifted from a material wellbeing to a high quality of life base. Thus, the growing affluence in industrialised countries favoured better education, political skills and a change in priorities, which translated in more active political engagement, compensating for the weakness of traditional institutions. With the help of weaker nationalistic sentiments, the younger and well-educated generations are more likely to perceive the inadequacy of traditional institutions and are willing to search for new bottom-up forms of political participation. How political institutions and business evolved along with societal transformation is discussed in more detail in the following paragraphs.

Beyond the sphere of values and political needs, social transformations can be traced in changing consumption preferences by more and more citizens concerned about the pursuit of a sustainable lifestyle (Gilg et al., 2005). Personal beliefs seem to be important determinants of conscious consumption so that the spread of ethical and green purchases plays an important part in reshaping companies’ strategies to meet customers’ demand (Tanner and Wölfling Kast, 2003). In this regard, Fung (2002) claims that the increased sensitivity of citizens to social and environmental protection translates into precise consumption and investment choices, which represents a mean of social control over the business and to effectively influence powerful organisations’ attitudes. In this perspective, consumers’ evaluations, provided that an adequate degree of transparency enable it, represent an innovative form of political participation that offsets the democratic deficit discussed above. After all, the author argues, citizens’ judgement is more effective in threatening firms’ revenues than legal sanctions. Nevertheless, as the next paragraph discusses, personal beliefs do not constitute a clear cause of consumption choices and business innovation, since preferences are influenced by several factors, among which policy choices represent a relevant one (Jackson, 2005).

The role of politics and institutions.

The direction of causality between social preferences and policy choices is not univocal since institutions react to changing social needs and, at the same time, contribute to shaping the way such evolution impacts society, business and international relations. In this regard, Meadowcroft (2011) claims that the role of public authorities is essential, as “transitions require a redefinition of societal interests and this implies political engagement to build reform coalitions, create new centres of power, buy-off powerful lobbies [...]” (ibid., p.4). Similarly, Jackson (2005) remarks that policy inexorably influences consumers’ preferences and the culture of consumption either via targeted interventions that affect the institutional context or due to its inaction on specific issues. In contrast, Eccles (2015) claims that the availability of information has made governments more reactive to citizens’ demand, increasing transparency and accountability. Hence, today regulators are specialised in stakeholder management, to ensure exchange of views with local communities and respond to citizens’ needs. In fact, most politicians have incentives to accomplish people’s demands and publicly blame industries for undesirable consequences of their activity (Esty and Winston, 2009b). With specific reference to environmental issues, Cohen (2011, 2016) argues that environmental concern is emphasised when it is associated with health matters. Thus, since one of the central functions of the state is to protect safety and health of citizens, environmental protection must be a priority in policymakers’ agendas. Conversely, especially when people perceive adverse environmental conditions, politicians who ignore them are likely to lose support. Concerning the transmission of social instances to regulatory measures, in their framework *Varieties of Capitalism*, Hall and Soskice (2001) claim that the institutional structure of a country provides opportunities for enterprises to engage in activities that meet social acceptance and higher returns together, giving them an advantage over peers from diverse institutional settings. In other words, in countries with different institutional and economic structures, global phenomena such as social and policy transformations may have different origins, channels and impacts.

Overall, regardless causality issues and institutional differences, policies and legal impositions are primary forces addressing the business conduct and enhancing sustainable development. Thus, as is discussed below, companies seeking to gain (or maintain) competitive advantage must take account of emerging regulations and anticipate them, since transformations of the economic environment may even represent a risk for their own survival (Fung, 2002). On this matter, Taylor et al. (2005) empirically demonstrate that regulation - and the anticipation of future norms – have strong stimulating effects on firms’ technological innovation. The success of environmental regulation can be partially attributed to

the adoption of economic incentives in policy-making, which make compliance more affordable by companies that can choose how and in which duration improve their productive activities (Esty and Winston, 2009b; Stavins, 2000). Market-based regulations represent an example of how global transformations, with the lost supremacy of nation states, gave birth to innovative forms of regulation to adapt policy-making to the globalised context and the principles of the market. The next paragraphs further develop this point.

The new actors of world governance.

In times of reshaping global powers, the part of the regulator is no more a prerogative of nation-states. In this concern, it is useful to recall the considerations by Esty and Winston (2009b), who claim that the role of governments has transformed both vertically and horizontally in the last decades. The vertical transformation occurs by a governance shift both toward inferior (local dimension) and superior (international agreements) levels, with different outcomes for the business sector. On the one hand, local politicians take the initiative to respond to citizens' demand for political autonomy, as mentioned above. On the other hand, international agreements are more successful than national laws in producing restrictive regulations with large-scale effectiveness, as required by the economic circumstances. As for the horizontal transformation in governance, the authors remark the growing influence in the public debate of actors outside the traditional boundaries of government, such as opinion leaders and ideas generators (academics and Think Tanks). Most importantly, NGOs have increased their ability to influence the attitudes of both private and public actors in the international arena over time, expressing the instances of the civil society.

Wapner (1995) claims that social concern for civil rights and environmental degradation has become politicised through the creation of movements and parties, which represent the attempt to institutionalise collective action and influence governments' decisions. Such movements constitute networks beyond national confines when global cooperation is required. These are what the author refers to as *world civic politics*, a form of civic governance "that takes place above the individual and below the state yet across national boundaries" (Wapner, 1995, p.337). In contrast to the legal power of the state, entitled to the legitimate use of violence, the governance form of the global civil society relies on campaigns directed to firms and citizens to persuade them to undertake voluntary actions. For instance, NGOs have developed powerful market campaigns that target retail firms, whose attention to brand reputation makes them vulnerable to massive boycotts and banner hangings (Gereffi et al., 2001; O'Rourke, 2005). Thus, civil society organisations contribute to fill the governance gap and react to the disproportion of corporations' rights over their obligations (Ruggie, 2007).

Anticipating the change to gain competitive advantage.

Empirical findings support that the more rapidly firms adapt their business model to the changing environment in which they operate, the so-called *dynamic capabilities*, the higher the likelihood to gain competitive advantage, especially in a highly volatile context (Li and Liu, 2014). At the same time, as Dunphy (2011) argues, in a rapidly changing economic context, compliance to public and private expectations alone is a necessary, minimal condition for survival, but not a source of competitive advantage. For the author, the current forces of change (technological, political, economic), together with the environmental crisis have a disruptive potential to the entire capitalist economy, taking the form of a transition toward a low-carbon economy. In this framework, the race to gain competitiveness trying to anticipate the trend of decarbonisation and stricter policy constraints is an impulse to innovate and a reason to accelerate the evolution of the business models in a sustainable way. After all, “in times of great change, rewards go to companies that anticipate the collapse of the current growth curve of their existing products and services and manage the timing of their move to the next growth curve by designing and launching new products and services.” (Dunphy, 2011, p.15). Hence, as the gain of competitiveness is of great significance for corporate strategies, the fulfilment of most strict requirements turns out to be necessary to get a first-mover advantage over competitors, providing efficiency gains of a more sustainable production method (Nidumolu et al., 2009; Reinhardt, 1999). In this regard, Vogel (2008) observes that the border between voluntary – or *civil regulation* - and legally binding norms are obfuscated, as firms’ compliance to the former is constrained by economic considerations, to keep competitiveness and avoid future legal regulation.

Self-regulation and international certifications.

The 1990s witnessed the spread of initiatives of the business to tackle socio-economic transformations, such as the adoption of self-imposed codes of conduct and reporting systems. Such forms to increase business’ accountability contributed to cover the authoritative gap arising from the institutional inadequacy to rule globalisation. The commitment to social, labour and environmental standards has evolved from a simple self-declaration of intents to quasi-public forms. Specifically, international organisations and NGOs led the development of independent and internationally recognised certifications to overcome the doubtful reliance of self-imposed standards (Fung 2002, Vogel, 2008).

Bartley (2007) investigates the reasons of firms’ adherence to certifications, proposing a *political* and a *market-based* approach, both empirically supported by a comparative case study. According to the first explanation, firms’ adoption of transnational private regulations emerges not only in response to external pressure, rather it is the outcome of negotiations among the markets and the civil society,

involving a wide range of actors (NGOs, firms, states, social movements), on both market and social issues. W. Abbott and Snidal (2000) argue that certifications, labelling and voluntary codes have the characteristics of soft laws since they lack precise obligations or delegation of authority. Such features facilitate the cooperation and the achievement of compromises among contractors with various positions, such as governments, firms, NGOs. Indeed, Vogel (2008) claims that “the soft law approach is said to offer many advantages, including timely action when governments are stalemated or otherwise unable to effectively respond to the challenges of economic globalisation” (Vogel, 2008, p.264). At the same time, given the absence of legal constraints of international certifications, Grant and Keohane (2005) individuate the major forms of business accountability in market forces, specifically, reputation and peer pressure. In this perspective, the authors consider reputation as a kind of soft power, which is more constraining the more firms rely on their brand-name to keep their market position. Such arguments validate the market-based approach by Bartley (2007) to explaining the adoption of international standards, along which certifications function as a way to address a collective action problem. Specifically, international standards represent a guarantee of firms’ commitment to higher standards of production, able to improve the reliability of information and brand’s image.

Corporate Social Responsibility: complementary explanations.

The popular concept of Corporate Social Responsibility (or Corporate Social Performance) encapsulates the number of activities companies undertake to meet the transformations in the social and economic environment, through charitable activities and self-impositions.

Following the scheme proposed by Hall and Soskice (2001), Gjolberg (2009) conducts an empirical study that validates two complementary explanations for the adoption of CSR. More precisely, if, on the one hand, CSR is the outcome of a global transformation and a reaction to worldwide social pressure, its origins also relate to the specific institutional structure of nation states. The study reveals that firms operating in economies where welfare state, corporatism and culture are particularly important exhibit high CSR performance because the institutional structure encourages companies to harmonise their needs with those of society. These are typically countries in which SMEs constitute a considerable share of the economic activity. At the same time, in countries where the number of multinational corporations is significant, companies adopt CSR to respond to anti-globalisation movements and social pressure. Developing this further, CSR appears to be adopted by multinational corporations mainly to protect brand image and strongly relies on communication strategies (Snider et al., 2003). Indeed, Heal (2005) conceives CSR as a mean to mitigate distributional conflicts between corporations and society. Since regulators and NGOs make companies aware of the costs they impose on society, CSR voluntary emerges to anticipate and soften such conflicts, mainly by improving firms’

relationships with rule-makers and brand reputation (Fiorina, 2004).

Regarding the first explanation proposed by Gjølborg (2009), CSR strategies matter for SMEs but are driven by different channels. In fact, the dimension in which SMEs operate is entirely distinct from that of big corporations, and new elements acquire importance. There is evidence that European SMEs face harsh price competition, which, in turn, forces them to shorten time horizons in decision making and sacrifice investments to improve environmental performances and, more in general, CSR (Graafland, 2016). Therefore, personal moral beliefs of single entrepreneurs matter and imply variation in the extent to which firms undertake socially desirable actions (Ferauge, 2013). However, Fuller and Tian (2006) stress the relevance of social interactions between small enterprises and their stakeholders that contribute to improving honour, reputation and prestige. Accordingly, they argue that economic interests can rationally motivate voluntary activities and translate them actual economic capital, exactly in the same way as big corporations conceive investments to improve brand reputation. Overall, the authors conclude that both SMEs and large enterprises develop CSR in the attempt to comply with stakeholders' needs for mainly reputational purposes.

Sustainable and Responsible Investments.

Since the early 1990s, the counterpart of CSR in the financial sector is labelled as Socially Responsible Investments (SRIs)¹. The rationale for SRI is related to the choice to benefit society, manage risk and fulfil fiduciary duties, assess the resilience of companies in investors' portfolios, outperform in the long term (US SIF²).

Similarly to CSR, Renneboog et al. (2008) attribute the origin of SRIs to individual investors' ethical and social principles, boosted by the acknowledgement of the negative environmental and social consequences of industrialisation and the proliferation of business scandals. Socially responsible investors select their portfolios through various levels of screening, among which the most common one consists of avoiding capital of industries considered unethical (Global Sustainable Investment Review, 2014; Renneboog et al., 2008). Indeed, for many years, avoidance has remained a defining approach to corporate social performance. The definition of social issue participation – part of the Corporate Social Performance (CSP) - proposed by Hillman & Keim (2001) is indicative in this regard since it is only negatively defined. Specifically, “common forms of social issue participation may include: avoiding nuclear energy, *not* engaging in ‘sin’ industries (alcohol, tobacco, and gambling),

¹A definition of SRI by the European Sustainable Investment Forum is available at <http://www.eurosif.org/about-us/> : Sustainable and responsible investment (“SRI”) is a long-term oriented investment approach which integrates ESG factors in the research, analysis and selection process of securities within an investment portfolio.

² <http://www.ussif.org/sribasics>

refraining from doing business with countries accused of human rights violations, *refusing* to sell to the military, etc.” (Hillman and Keim, 2001, p.128).

Until the 2000s, it appears that responsible investors mostly evaluated an ethical and reputational dimension of their activities, rather than consciously pursuing sustainable development objectives (Sparkes and Cowton, 2004). Hence, it can be argued that the real potential of environmental investments not be fully understood in the same light as it became thereafter. As an illustration, (Derwall et al., 2004) empirically demonstrate that portfolios with high eco-efficiency scores perform better than others. Accordingly, the authors suggest that environmental information is not well evaluated by current asset pricing models, which do not effectively take account of information regarding environmental efficiency and the risks and gains associated with green investments. Likewise, Edmans (2016) posits that investors underestimate socially responsible companies, whose added value is not tangible and is thus ignored by the assessment models employed.

Section II

The financial crisis is a breaking point of capitalism

Previous sections describe how the changing context brought about by globalisation forces and social transformation induced the world of business to rethink its role in society, undertaking initial steps towards sustainable development. In this narrative, the economic crisis and its consequences regarding risk perception, lower growth and change of the economic paradigm bring about a new set of contextual changes, which stratify over the ones previously discussed, imposing deeper business transformations.

Rethinking the economic paradigm.

Since the Great Recession, which implied a general feeling of distrust, more and more economists have questioned the theories at the base of the capitalist economy, pointed as an unbalanced and unsustainable economic model (Hein and Truger, 2010; Ioannou and Serafeim, 2017; Vitols, 2015)³. Rodrik (2015) criticises the widespread optimism toward market efficiency, together with the increasing sophistication of financial instruments designed to overcome regulatory constraints that represent the pillars of the neoliberal thought and the founding elements of the economic deregulation started in the 1980s. Financial deregulation and trust in markets efficiency are reflected on the economic system by

³ From the speech held by Mario Draghi in Tel Aviv (18 May 2017): “The crisis has thus resulted in a form of creative destruction, where established paradigms have been critically revisited, where flawed practices have been exposed and replaced by sounder ones and where new research addressed previously neglected aspects of our societies.” <http://newskitchen.eu/2017/05/18/mario-draghi-response-by-mario-draghi-president-of-the-ecb-on-the-receipt-of-an-honorary-doctorate-from-tel-aviv-university/>

the expansion of the financial sector that implies an imbalance of capital over labour and a growing attractiveness of short-term financial returns at the expense of long-term investments in innovation (Murphy et al., 1991). The profound acceptance of the neoliberal economic model explains why the Great Recession surprised most economists and raised doubts about the validity of some of its most recognised theories. Alan Greenspan's declarations⁴ of guilt for excessively accommodating policies when in charge as governor of the Federal Reserve are emblematic in this sense (Rodrik, 2015).

In the context of a rethinking of the economic paradigm, policymakers worldwide have recognised the need for legal responses to make all previously unregulated operations compatible with the system stability (Davis, 2011). Hence, an overall re-regulation has been invoked, mainly to increase transparency in business and financial markets with the aim to reduce asymmetric information and moral hazard, and generate incentives to encourage agents to focus on the long-term growth, rather than on short-run profits (Hein and Truger, 2010).

Growing perception of risk and uncertainty.

If the great recession has given an impulse to a general review of the economic model, of the role of business and that of regulators, it appears that the dimension of risk gained attention among opinion-makers. Scholars indicate as main responsible factors of the financial crisis the weaknesses of risk management practices of financial institutions, which favour excessive leverage and too little accountability for the distribution of risk, while compensation schemes only incentivise short-term risk-adjustment (Davis, 2011); Diamond & Rajan, 2009). Moreover, that existing financial regulation has been criticised for being largely micro-prudential while lacking focus on the general equilibrium (Hanson et al., 2011). The deficit of effective coordination in macroeconomic policy is exemplified by the fact that, although established in 1999, the G20 assumed significance as coordination assembly only after the burst of the financial crisis, with the establishment of the Financial Stability Board in 2009 (Davis, 2011). Since that moment, a proliferation of national and international financial standards has taken place, with the purpose to improve the stability and sustainability of the financial and economic systems. In its review of the most significant financial standards recently developed by international supervisory institutions, the (United Nations Environment, 2017) underlines the much effort is still needed to limit those considered as some of the main drawbacks of the financial system, such as a penalising allocation of capital for SMEs, excessive short-termism, poor system-wide thinking. Instead, what the report suggests for improving international stability is to embed the dimension of sustainability into risk reduction considerations, introducing elements of environmental and social concern into economic and financial standards.

⁴“Those of us who have looked to the self-interest of lending institutions to protect shareholders’ equity, myself included, are in a state of shocked disbelief”. <http://www.nytimes.com/2008/10/24/business/economy/24panel.html>

On this matter, the emphasised vulnerability of the economic system to risks not only regards the financial sphere, rather it seems to be a broader issue. Turbulences affecting the global markets, business scandals, new regulations and changes in consumers' attitudes, contribute to creating uncertainty and risk for the survival of the organisations (Burnard and Bhamra, 2011; Dunphy, 2011). Moreover, the growing awareness of the potential impact that natural disasters have on economic activities compels organisations to develop appropriate competencies to increase their responsiveness to environmental changes (Burnard and Bhamra, 2011; World Economic Forum, 2017).

The latest evolution of the business model

In a scenario of social and economic change, the business sector seems to have undertaken a further process of transformation, driven by the acknowledgement that the voluntary dimension has been replaced by that of necessity to ensure survival. In this concern, Nieuwenkamp (2016) asserts that “CRS is dead” since charitable activities are no more considered a sufficient strategy to defend the brand reputation and gain competitiveness. Rather, CSR has gone through a real crisis, caused by the perceived inertia of the business relative to deeper social, economic and political transformations (Googins, 2013). To be competitive, companies need to rethink their core business and institutionalise Corporate Social Innovation (CSI), defined as any initiative aiming at creating both shareholder and social value (Herrera, 2015). CSI is an evolution of CSR and the latest step of a continuous process of business transformation (Boggs Davidsen, 2015; Googins, 2013).

A pioneering concept in the literature concerning business model innovation is that of *Shared Value*, introduced by Porter and Kramer (2011). The authors point out that Shared Value emerges from companies' need to recover lost legitimisation that has made business and policymakers one against the others, creating a vicious circle. Thus, the innovative payload of their theory lies in recognising that the business-as-usual overlooks valuable growth opportunities arising from the achievement of economic and social returns together. More recent developments in the literature on business model innovation, depart from the concept of Shared Value, proposing frameworks in which the business conceives risks as opportunities to be harnessed, and focus on the need to increase business resilience and strategic time horizons, making enterprises stable and competitive in the long-term (Dunphy et al., 2014b; Vitols, 2015).

Rethinking business toward long-termism.

The declining faith in the neoliberal logic is traced in the arguments discussed by Vitols (2011), who criticises the so-called *shareholder value model*, the central framework of corporate governance in the decades of deregulation. Such an approach adopts mainstream economic principles - such as contract

theories and principal-agent models - with the purpose to align the interests of shareholders to those of the management. However, according to the author, the shareholder value model fails in making the interests of managers and shareholders converge with those of society in the long-term, as the current crisis, constituted of economic distress, worsening climate change and rising income inequality would require. Furthermore, the shareholder value model relies on the competitive market for equity capital, which strongly links the business activities to the volatility of financial markets. As already emphasised by J.M. Keynes⁵ - share prices are strongly influenced by the overall degree of trust in the financial markets and by the psychological reactions of operators. Indeed, the competition for market equity subjects companies to fluctuations that do not depend directly on their economic performance, while imposing short-term targets that divert their investment strategies to a short-sight perspective (Porter, 1992).

In this regard, the criticisms to the shareholder value model and of the drawbacks of deregulated capital markets appear to be strictly linked to the critique to an economic model excessively constrained by a short-term perspective, considered a leading cause of the financial crisis (Vitols and Kluge, 2011). Indeed, short-termism is induced by mutually supporting behaviours of shareholders and managers whose incentives are trapped in a “self-reinforcing shortening of time horizons” (Jackson and Petraki, 2011). According to the survey conducted to business leaders by Bailey et al. (2014), most of the respondents feel the pressure of providing short-term results, while recognising that a longer time horizon in decision making would be beneficial for the corporate and the financial performance. Moreover, the survey reveals that short-term pressure has increased dramatically after the Great Recession, mainly caused by short-sighted investors - including institutional capital owners - due to higher economic uncertainty. In addition, it has been pointed out that, when quoted companies fail to meet the quarterly targets imposed by “impatient” investors that own equity capital, their share price falls augmenting the risk of hostile takeovers and forces managers to shares buybacks at the expense of investments in R&D and innovation (Johnston and Morrow, 2015; Tirole, 2001; Wahal and McConnell, 2000).

On this matter, the role of institutional investors as a source of short-term pressure has been extensively investigated, with conflicting evidence. For instance, Chen et al. (2015) find that the ownership of companies’ capital by institutional investors exacerbates the likelihood that executives cut R&D when earnings decrease, enhancing managerial myopia. Conversely, empirical studies demonstrate that institutional investors favour expenditure in R&D, adopting a longer time-horizon than individual investors who seek short-term returns (Aghion et al., 2013; Brossard et al., 2013; Wahal and McConnell, 2000). At any rate, Barton & Wiseman (2014) argue that investors’ acceptance of higher variation from short-term targets would favour stability and growth in the long-term. (Barton et al.,

⁵ See (Keynes, 1936), “The General Theory of Employment, Interest and Money”, chapter 12.

2017) demonstrate that companies adopting a long-term strategic perspective performed considerably better than their peers in the period 2001-2014 and contributed more to the national growth and employment.

Environmental risks create financial concern.

If CSR has evolved from voluntary concessions to the integration of social objectives into firms' strategies for the creation of value, a parallel transformation involves the financial sector. Specifically, it is noted above that the dominant feature of SRIs is the adoption of negative screenings to avoid investments in unethical industries. However, a recent trend in the financial sector is to pander to social instances by diverting assets not much from unethical, but especially from unsustainable companies, as shown by the case of *fossil fuel divestment movements*.

Since 2011, grassroots groups protesting against fossil fuel companies have proliferated all over the world, stimulated public debates about climate change and caused the rapid reaction of investors (Arabella Advisors, 2016; Linnenluecke et al., 2015). Indeed, as argued by Ansar et al. (2013), divestment campaigns contribute to creating *organisational stigma*, a widespread perception of discredit caused by the recognition of the firms' responsibility in violating social norms. Accordingly, changes in the set of conventions and routines that characterise the process of investment decisions - among which economic, political, regulatory and psychological factors - contribute to create uncertainty and cause downward pressure on firms' stock prices. Notice that divestment movements not only threaten fossil fuel companies. Conversely, Weyzig et al. (2014) estimate in more than 1 trillion euros the exposure of European financial institutions to the risks linked to the depreciation of fossil reserves - a phenomenon known as *carbon bubble*, which raises concern for its potential repercussions on the entire economy, especially in times of crisis.

The fossil fuel divestment movement is just an example of how environmental issues are more and more a concern for investors, due to the direct impacts they have on the economic activity and for the indirect risks related to both reputation and stricter forms of environmental regulation (Eun-Hee Kim and Lyon, 2011; Harmes, 2011; Kauffmann et al., 2012; Mercer, 2015). Hence, investors' perception of risks is a major reason to pressure companies to improve their resilience and accountability (Kauffmann et al., 2012; Sullivan and Gouldson, 2012). In this regard, abundant evidence supports the positive effect that disclosure has in keeping investors perceived them able to cope with stricter environmental norms (Baboukardos (forthcoming); Clarkson et al., 2008; Eun-Hee Kim and Lyon, 2011; Matsumura et al., 2014).

Overall, investors are taking action to minimise their exposure to the transition toward a low-carbon economy, mainly reformulating investment relations and strategies that take account of environmental,

social and governance issues, thus strongly influencing the attitudes of business⁶ (Kauffmann et al., 2012; Mercer, 2015).

From competitive advantage to survival?

It can be argued that the broad recognition that business needs to adopt a long-term perspective for its own benefits be a decisive step toward its transformation along a sustainable pattern. As pointed out by (Osburg, 2013):

“The definition given by the Brundtland Commission (1987) on Sustainable Development that *meets the needs of the present without compromising the ability of future generations to meet their own needs* can easily be applied to businesses that thrive to stay around for the next decades” (Osburg, 2013, p.19).

A changing social and economic context represents a challenge for the very survival of both global companies and SMEs (Winnard et al., 2014). In particular, the latter may be less responsive to relevant turbulences, due to the absence of strategic planning and the orientation toward immediate benefits (Burnard and Bhamra, 2011). Also, the interconnections of the globalised world constitute multiplier effects for the propagation of shocks – as the Great Recession testifies – so that improving business resilience becomes critical (Christopher and Peck, 2004; Dunphy et al., 2014b). In practical terms, developing business resilience frequently translates into the firms’ need to build new markets outside developed countries, to pay more attention to the solidity of their whole supply chain and the workforce satisfaction (World Economic Forum and Oliver Wyman, 2015).

Regarding the first point, the Great Recession accelerated the saturation of Western markets, inducing firms to search for opportunities of expansion in developing countries, whose differences impose a redefinition of the core business activities (Scholl, 2013). Indeed, market-building requires investments to develop relationships with local producers, adapt processes to the new environment and to make products accessible to a low purchasing power audience (World Economic Forum and Oliver Wyman, 2015). Secondly, business resilience needs to strengthen supply chains by developing tools to improve responsiveness to unexpected changes in demand and supply and coordinating the phases of value creation to gain a broad vision of the whole process (Christopher and Peck, 2004; Pettit et al., 2010). Also, firms launch new relationships to increase the productivity of local producers while and reduce price fluctuations due to climatic events (World Economic Forum and Oliver Wyman, 2015).

⁶ See the open letter to CEOs sent in 2016 by Lawrence Fink, available at “Turner, M., 2016. Here is the letter the world’s largest investor, BlackRock CEO Larry Fink, just sent to CEOs everywhere. Bus. Insid. URL <http://www.businessinsider.com/blackrock-ceo-larry-fink-letter-to-sp-500-ceos-2016-2> (accessed 2.10.17)”.

Reputational risks constitute a further factor of supply-chain improvement. Since worldwide availability of information has made firms vulnerable to social control along all the stages of value creation, corporations make efforts to propagate clean production technologies and “good” practices to their entire network of suppliers retailers, including smaller enterprises (Dunphy et al., 2014a; Esty and Winston, 2009b; Fung, 2002). Lastly, companies’ resilience might be related to the so-called *employer branding*, the capacity to attract and maintain talents by strengthening the employer-employee relationship, enhancing workers’ satisfaction and, accordingly, their productivity (Kryger Aggerholm et al., 2011; Reinhardt, 1999).

If times of transition require business models to seek strategies of survival, innovative resilience frameworks aim to take advantage of the changes and uncertainty in the business environment, transforming them into opportunities for growth. As an example, Winnard et al. (2014) claim that a competitive strategy for a successful business needs to couple sustainability and *strategic resilience*, defined as the capacity to reinvent business models, not only to ensure the survival but to keep competitiveness over time. Likewise, innovative risk management approaches can be embedded in the core business not only to respond to the growing concern for organisational resilience, rather to harness potential hazards to gain competitiveness (Petruzzi and Loyear, 2016).

Conclusion

In less than fifty years the world economic system has witnessed a euphoric expansion and a sudden collapse of neoliberal beliefs. In historical perspective, this path equates the rapid economic integration and the sudden shock of the financial crisis, at the origin of the Great Recession. This review outlines the two phases that identify the context in which society, world politics and business have evolved so far.

The business has been influenced by all the changes occurred and is expected to contribute as the protagonist in driving a transition towards a sustainable economic model. As this review seems to reveal, competitive pressure imposes firms to adequate and possibly anticipate innovative pathways to gain competitive advantage, or not to destroy their market position. In this narrative, it is underlined how in the 1990s and early 2000s the business sector took actions to make its social legitimacy suitable to its growing economic influence. In particular, firms undertook voluntary initiatives, such as self-imposed ethical codes, adherence to internationally recognised standards and philanthropic activities. Nevertheless, the financial crisis led to a redefinition of fundamental economic beliefs, questioning the ability of market agents to address risk in a highly integrated world. Since then, the business has started

conceiving substantially innovative strategies for its core interests, with a clear commitment to sustainability. Thus, the interpretation itself of what is “sustainable” appears to have evolved, from a moral commitment to a core strategic aptitude of business to be resilient to contextual shocks, while maintaining the ability to face uncertainty and be competitive in a long-term perspective. Concerning the financial markets, although scholars perceive that investors consider good social and environmental performance as a signal for good management, (Esty and Winston, 2009b; Sparkes and Cowton, 2004), it seems that until recently the advantages of investing in sustainable corporations were underestimated. Conversely, the rising perception of financial and environmental risks is imposing a deeper rethinking of assessment models, such that both morally committed investors and neutral ones revise their expectations about companies’ cash flows in the long-term and review their choices of capital allocation. A better assessment of firms’ sustainability requires more transparency on their performance regarding environmental, social and governance dimensions, which enterprises cannot neglect.

To summarise, it can be argued that what characterises the recent transformations in the business models are changes that impact the company’s core strategies, not only to defend reputation but also to create robust organisations, able to cope with contextual risks and uncertainties in the long-term.

Following research steps should be aware of the continuous changes in the global economic context, which may - once more - strongly influence the way business evolves and represent obstacles to the accomplishment of sustainability objectives. Indeed, this review tries to highlight the forces that drive business to innovate, but several other elements exist to oppose a move away from the status quo. President Trump’s denial of climate changes and the dismantlement of the American achievements concerning financial and environmental regulation⁷ embody a perfect illustration of a worrying reversal. Furthermore, the current crisis of traditional politics, with emotive votes and rising nationalistic sentiments have been pointed as elements of a more profound crisis of democracy, challenging the actual view of the globalised world (World Economic Forum, 2017). Accordingly, the threat of closure of frontiers and return to protectionism potentially reshape the global context again. Such a scenario would constitute an additional disruptive element of business transformation, which could raise questions about deviations of the trajectory of the economy toward sustainability.

⁷ <http://www.independent.co.uk/news/world/americas/donald-trump-proposal-environmental-protection-agency-budget-cut-climate-change-a7608746.html>
<https://www.theatlantic.com/international/archive/2017/02/exxon-mobil-tillerson-state-corruption-russia-sec/515244/>

References

- Abbott, K.W., Snidal, D., 2000. Hard and Soft Law in International Governance. *Int. Organ.* 54, 421–456. doi:10.1162/002081800551280
- Aghion, P., Van Reenen, J., Zingales, L., 2013. Innovation and Institutional Ownership. *Am. Econ. Rev.* 103, 277–304.
- Alesina, A., Wacziarg, R., 2000. The economics of civic trust. *Disaffected Democr. What's Troubl. Trilateral Ctries.* 149–170.
- Ansar, A., Caldecott, B., Tilbury, J., 2013. Stranded assets and the fossil fuel divestment campaign: what does divestment mean for the valuation of fossil fuel assets. *Stranded Assets Programme SSEE Univ. Oxf.* 1–81.
- Antweiler, W., Copeland, B.R., Taylor, M.S., 1998. Is Free Trade Good for the Environment? (NBER Working Paper No. 6707). National Bureau of Economic Research, Inc.
- Arabella Advisors, 2016. *Global Divestment Report 2016.pdf*.
- Baboukardos, D., 2017. Market valuation of greenhouse gas emissions under a mandatory reporting regime: Evidence from the UK. *Account. Forum.* doi:10.1016/j.accfor.2017.02.003
- Bailey, J., Bérubé, V., Godsall, J., Kehoe, C., 2014. Focusing Capital on the long term (CPPIB and McKinsey & Company).
- Bartley, T., 2007. Institutional Emergence in an Era of Globalization: The Rise of Transnational Private Regulation of Labor and Environmental Conditions. *Am. J. Sociol.* 113, 297–351. doi:10.1086/518871
- Barton, D., Manyika, J., Koller, T., Palter, R., Godsall, J., Zoffer, J., 2017. Measuring The Economic Impact Of Short-Termism, McKinsey Global Institute.
- Barton, D., Wiseman, M., 2014. Focusing Capital on the Long Term. *Harv. Bus. Rev.*
- Boggs Davidsen, E., 2015. Corporate Social Innovation is the New Corporate Social Responsibility. *Huffington Post*.
- Brossard, O., Lavigne, S., Sakinc, M.E., 2013. Ownership structures and R&D in Europe: the good institutional investors, the bad and ugly impatient shareholders. *Ind. Corp. Change* dtt018.
- Burnard, K., Bhamra, R., 2011. Organisational resilience: development of a conceptual framework for organisational responses. *Int. J. Prod. Res.* 49, 5581–5599. doi:10.1080/00207543.2011.563827
- Chen, Y.-F., Lin, F.-L., Yang, S.-Y., 2015. Does institutional short-termism matter with managerial myopia? *J. Bus. Res., Special Issue on Global entrepreneurship and innovation in management* Special Issue on Global entrepreneurship and innovation in management 68, 845–850. doi:10.1016/j.jbusres.2014.11.039
- Christopher, M., Peck, H., 2004. Building the resilient supply chain. *Int. J. Logist. Manag.* 15, 1–14.
- Clarkson, P.M., Li, Y., Richardson, G.D., Vasvari, F.P., 2008. Revisiting the relation between environmental performance and environmental disclosure: An empirical analysis. *Account. Organ. Soc.* 33, 303–327. doi:10.1016/j.aos.2007.05.003
- Cohen, S., 2016. Changing Environmental Values and a Changing World. *Huffington Post*.
- Cohen, S., 2011. The Political Power of Environmental Protection. *Huffington Post*.
- Dalton, R.J., 2005. The Social Transformation of Trust in Government. *Int. Rev. Sociol.* 15, 133–154. doi:10.1080/03906700500038819
- Davis, K., 2011. Regulatory Reform Post the global Financial Crisis: An Overview.
- Derwall, J., Guenster, N., Bauer, R., Koedijk, K., 2004. The eco-efficiency premium puzzle. *Financ. Anal. J.* 51–63.
- Diamond, D.W., Rajan, R.G., 2009. The Credit Crisis: Conjectures about Causes and Remedies. *Am. Econ. Rev.* 99, 606–610.
- Dunphy, D., 2011. Chapter 1 Conceptualizing Sustainability: The Business Opportunity, in: Eweje, G., Perry, M. (Eds.), *Critical Studies on Corporate Responsibility, Governance and Sustainability*. Emerald Group Publishing Limited, pp. 3–24. doi:10.1108/S2043-9059(2011)0000003009
- Dunphy, D.C., Benn, S., Griffiths, A., 2014a. The drivers of change, in: *Organizational Change for Corporate Sustainability, Understanding Organizational Change*. Routledge, Abingdon, Oxon, pp. 34–66.
- Dunphy, D.C., Benn, S., Griffiths, A., 2014b. Setting the agenda for corporate sustainability, in: *Organizational Change for Corporate Sustainability, Understanding Organizational Change*. Routledge, Abingdon, Oxon, pp. 3–33.
- Eccles, C., 2015. Restoring Trust in Government, in: *New Accountabilities, New Challenges*. ANU Press, pp. 17–28.

- Edmans, A., 2016. Does Socially Responsible Investing Make Financial Sense? *Wall Str. J.*
- Esty, D., Winston, A., 2009a. Who's Behind the Green Wave?, in: *Green to Gold: How Smart Companies Use Environmental Strategy to Innovate, Create Value, and Build Competitive Advantage*. John Wiley & Sons, pp. 65–99.
- Esty, D., Winston, A., 2009b. *Green to gold: How smart companies use environmental strategy to innovate, create value, and build competitive advantage*. John Wiley & Sons.
- Eun-Hee Kim, Lyon, T., 2011. When Does Institutional Investor Activism Increase Shareholder Value?: The Carbon Disclosure Project. *BE J. Econ. Anal. Policy Contrib. Econ. Anal. Policy* 11, 1–27. doi:10.2202/1935-1682.2676
- Ferauge, P., 2013. The Complementarity of Corporate Social Responsibility and Innovation: Evidence from Belgian Firms (SSRN Scholarly Paper No. ID 2239378). Social Science Research Network, Rochester, NY.
- Fiorina, C., 2004. Invention for the Common Good (SSIR) [WWW Document]. URL https://ssir.org/articles/entry/invention_for_the_common_good (accessed 2.2.17).
- Frankel, J.A., 2003. The environment and globalization. National Bureau of Economic Research.
- Frankel, J.A., Rose, A.K., 2002. Is Trade Good or Bad for the Environment? Sorting Out the Causality (NBER Working Paper No. 9201). National Bureau of Economic Research, Inc.
- Friedman, M., 1970. The Social Responsibility of Business is to Increase its Profits. *N. Y. Times Mag.*
- Fuller, T., Tian, Y., 2006. Social and Symbolic Capital and Responsible Entrepreneurship: An Empirical Investigation of SME Narratives. *J. Bus. Ethics* 67, 287–304. doi:10.1007/s10551-006-9185-3
- Fung, A., 2002. Making Social Markets: Dispersed Governance and Corporate Accountability.
- Garud, R., Gehman, J., 2012. Metatheoretical perspectives on sustainability journeys: Evolutionary, relational and durational. *Res. Policy, Special Section on Sustainability Transitions* 41, 980–995. doi:10.1016/j.respol.2011.07.009
- Gereffi, G., Garcia-Johnson, R., Sasser, E., 2001. The Ngo-Industrial Complex. *Foreign Policy* 56.
- Gilg, A., Barr, S., Ford, N., 2005. Green consumption or sustainable lifestyles? Identifying the sustainable consumer. *Futures* 37, 481–504. doi:10.1016/j.futures.2004.10.016
- Gjølberg, M., 2009. The origin of corporate social responsibility: global forces or national legacies? *Socio-Econ. Rev.* 7, 605–637. doi:10.1093/ser/mwp017
- Global Sustainable Investment Review, 2014. *Global Sustainable Investment Review*.
- Googins, B., 2013. Leading with Innovation: Transforming Corporate Social Responsibility, in: Osburg, T., Schmidpeter, R. (Eds.), *Social Innovation*. Springer Berlin Heidelberg, Berlin, Heidelberg, pp. 89–98. doi:10.1007/978-3-642-36540-9
- Graafland, J.J., 2016. Price competition, short-termism and environmental performance. *J. Clean. Prod.* 116, 125–134. doi:10.1016/j.jclepro.2015.12.045
- Grant, R.W., Keohane, R.O., 2005. Accountability and abuses of power in world politics. *Am. Polit. Sci. Rev.* 99, 29–43.
- Grossman, G.M., Krueger, A.B., 1995. Economic Growth and the Environment. *Q. J. Econ.* 110, 353–377. doi:10.2307/2118443
- Hall, P., Soskice, D., 2001. An Introduction to Varieties of Capitalism, in: *Varieties of Capitalism: The Institutional Foundations of Comparative Advantage*. Oxford University Press, pp. 1–68.
- Hanson, S.G., Kashyap, A.K., Stein, J.C., 2011. A Macroprudential Approach to Financial Regulation. *J. Econ. Perspect.* 25, 3–28.
- Harmes, A., 2011. The Limits of Carbon Disclosure: Theorizing the Business Case for Investor Environmentalism. *Glob. Environ. Polit.* 11, 98–119. doi:10.1162/GLEP_a_00057
- Heal, G., 2005. Corporate Social Responsibility: An Economic and Financial Framework. *Geneva Pap. Risk Insur. - Issues Pract.* 30, 387–409. doi:10.1057/palgrave.gpp.2510037
- Hein, E., Truger, A., 2010. Finance-dominated capitalism in crisis – the case for a Global Keynesian New Deal (MPRA Paper No. 21175). University Library of Munich, Germany.
- Herrera, M.E.B., 2015. Creating competitive advantage by institutionalizing corporate social innovation. *J. Bus. Res., Special issue on The Spirit of Strategy* Special issue on The Spirit of Strategy 68, 1468–1474. doi:10.1016/j.jbusres.2015.01.036
- Hillman, A.J., Keim, G.D., 2001. Shareholder value, stakeholder management, and social issues: what's the bottom line? *Strateg. Manag. J.* 22, 125–139. doi:10.1002/1097-0266(200101)22:2<125::AID-SMJ150>3.0.CO;2-H
- Inglehart, R., 1977. *The Silent Revolution: Changing Values and Political Styles Among Western Publics*. Princeton University Press.

- Ioannou, I., Serafeim, G., 2017. The Consequences of Mandatory Corporate Sustainability Reporting (SSRN Scholarly Paper No. ID 1799589). Social Science Research Network, Rochester, NY.
- Jackson, G., Petraki, A., 2011. Understanding short-termism: The role of corporate governance.
- Jackson, T., 2005. Motivating sustainable consumption. *Sustain. Dev. Res. Netw.* 29, 30.
- Johnston, A., Morrow, P., 2015. , in: Vitols, S. (Ed.), *Long-Term Investment and the Sustainable Company: A Stakeholder Perspective*. Vol. III. ETUI, pp. 19–45.
- Kauffmann, C., Teichmann, D., Tébar Less, C., 2012. Corporate Greenhouse Gas Emission Reporting (OECD Working Papers on International Investment No. 2012/01). doi:10.1787/5k97g3x674lq-en
- Keohane, R.O., 2005. Global governance and accountability, in: *Taming Globalization: Frontiers of Governance*. Cambridge, UK: Polity, pp. 130–59.
- Keynes, J.M., 1936. *General theory of employment, interest and money*. Palgrave Macmillan.
- Kryger Aggerholm, H., Esmann Andersen, S., Thomsen, C., 2011. Conceptualising employer branding in sustainable organisations. *Corp. Commun. Int. J.* 16, 105–123. doi:10.1108/13563281111141642
- Li, D., Liu, J., 2014. Dynamic capabilities, environmental dynamism, and competitive advantage: Evidence from China. *J. Bus. Res.* 67, 2793–2799. doi:10.1016/j.jbusres.2012.08.007
- Linnenluecke, M.K., Meath, C., Rekker, S., Sidhu, B.K., Smith, T., 2015. Divestment from fossil fuel companies: Confluence between policy and strategic viewpoints. *Aust. J. Manag.* 40, 478–487.
- Matsumura, E.M., Prakash, R., Vera-Muñoz, S.C., 2014. Firm-Value Effects of Carbon Emissions and Carbon Disclosures. *Account. Rev.* 89, 695–724. doi:10.2308/accr-50629
- Meadowcroft, J., 2011. Engaging with the politics of sustainability transitions. *Environ. Innov. Soc. Transit.* 1, 70–75. doi:10.1016/j.eist.2011.02.003
- Medalla, E.M., Lazaro, D.C., 2005. Trade and Environmental Protection: Another Look at the Issues, in: *The 30th Pacific Trade and Development Conference-Oes Trade Deliver What It Promises*. Citeseer.
- Mercer, 2015. Investing in a Time of Climate Change, Responsible Investment.
- Murphy, K.M., Shleifer, A., Vishny, R.W., 1991. The Allocation of Talent: Implications for Growth. *Q. J. Econ.* 106, 503–530. doi:10.2307/2937945
- Nidumolu, R., Prahalad, C.K., Rangaswami, M.R., 2009. Why sustainability is now the key driver of innovation. *Harv. Bus. Rev.* 87, 56–64.
- Nieuwenkamp, R., 2016. 2016: CSR is dead! What's next? [WWW Document]. OECD Insights Blog. URL <http://oecdinsights.org/2016/01/22/2016-csr-is-dead-whats-next/> (accessed 2.1.17).
- Olney, W.W., 2013. A race to the bottom? Employment protection and foreign direct investment. *J. Int. Econ.* 91, 191–203. doi:10.1016/j.jinteco.2013.08.003
- O'Rourke, D., 2005. Market Movements: Nongovernmental Organization Strategies to Influence Global Production and Consumption. *J. Ind. Ecol.* 9, 115–128. doi:10.1162/1088198054084608
- Osburg, T., 2013. Social Innovation to Drive Corporate Sustainability, in: Thomas Osburg, René Schmidpeter (Eds.), *Social Innovation*. Springer Berlin Heidelberg, Berlin, Heidelberg, pp. 13–22. doi:10.1007/978-3-642-36540-9
- Petruzzi, J., Loyear, R., 2016. Improving organisational resilience through enterprise security risk management. *J. Bus. Contin. Emerg. Plan.* 10, 44–56.
- Pettit, T.J., Fiksel, J., Croxton, K.L., 2010. Ensuring Supply Chain Resilience: Development of a Conceptual Framework. *J. Bus. Logist.* 31, 1–21. doi:10.1002/j.2158-1592.2010.tb00125.x
- Porter, M.E., 1992. Capital Disadvantage: America's Failing Capital Investment System. *Harv. Bus. Rev.*
- Porter, M.E., Kramer, M.R., 2011. Creating Shared Value: How to reinvent capitalism—and unleash a wave of innovation and growth. [WWW Document]. *Harv. Bus. Rev.* URL <https://hbr.org/2011/01/the-big-idea-creating-shared-value> (accessed 2.10.17).
- Porter, M.E., Van der Linde, C., 1995. Toward a new conception of the environment-competitiveness relationship. *J. Econ. Perspect.* 9, 97–118.
- Reinhardt, F., 1999. Market Failure and the Environmental Policies of Firms: Economic Rationales for “Beyond Compliance” Behavior. *J. Ind. Ecol.* 3, 9–21. doi:10.1162/108819899569368
- Renneboog, L., Ter Horst, J., Zhang, C., 2008. Socially responsible investments: Institutional aspects, performance, and investor behavior. *J. Bank. Finance* 32, 1723–1742. doi:10.1016/j.jbankfin.2007.12.039
- Rodrik, D., 2015. When Economists Go Wrong, in: *Economics Rules: The Rights and Wrongs of the Dismal Science*. WW Norton & Company, p. Ch 5.
- Ruggie, J.G., 2007. Global Markets and Global Governance: The Prospects for Convergence, in: Bernstein, S.F., Pauly, L.W. (Eds.), *Global Liberalism and Political Order: Toward a New Grand Compromise?*, SUNY Series in Global Politics. State University of New York Press, Albany, pp. 23–48.

- Salzmann, O., Ionescu-somers, A., Steger, U., 2005. The Business Case for Corporate Sustainability:: Literature Review and Research Options. *Eur. Manag. J.* 23, 27–36. doi:10.1016/j.emj.2004.12.007
- Scholl, J., 2013. Inclusive Business Models as a Key Driver for Social Innovation, in: Osburg, T., Schmidpeter, R. (Eds.), *Social Innovation*. Springer Berlin Heidelberg, Berlin, Heidelberg, pp. 99–109. doi:10.1007/978-3-642-36540-9
- Snider, J., Hill, R.P., Martin, D., 2003. Corporate Social Responsibility in the 21st Century: A View From the World's Most Successful Firms. *J. Bus. Ethics* 48, 175–187.
- Sparkes, R., Cowton, C.J., 2004. The Maturing of Socially Responsible Investment: A Review of the Developing Link with Corporate Social Responsibility. *J. Bus. Ethics* 52, 45–57. doi:10.1023/B:BUSI.0000033106.43260.99
- Stavins, R.N., 2000. Market-based environmental policies. *Public Policies Environ. Prot.* 2, 31–76.
- Sullivan, R., Gouldson, A., 2012. Does voluntary carbon reporting meet investors' needs? *J. Clean. Prod.* 36, 60–67. doi:10.1016/j.jclepro.2012.02.020
- Tanner, C., Wölfling Kast, S., 2003. Promoting sustainable consumption: Determinants of green purchases by Swiss consumers. *Psychol. Mark.* 20, 883–902. doi:10.1002/mar.10101
- Taylor, M.R., Rubin, E.S., Hounshell, D.A., 2005. Regulation as the Mother of Innovation: The Case of SO₂ Control*. *Law Policy* 27, 348–378. doi:10.1111/j.1467-9930.2005.00203.x
- Tirole, J., 2001. Corporate Governance. *Econometrica* 69, 1–35. doi:10.1111/1468-0262.00177
- United Nations Environment, 2017. A review of international financial standards as they relate to sustainable development (Inquiry Reports).
- Vitols, S., 2015. Introduction: a stakeholder perspective on the long-term investment debate, in: *Long-Term Investment and the Sustainable Company: A Stakeholder Perspective*. Vol. III. ETUI, pp. 9–18.
- Vitols, S., 2011. What is the Sustainable Company?, in: Vitols, S., Kluge, N. (Eds.), *The Sustainable Company: A New Approach to Corporate Governance*. ETUI, pp. 15–38.
- Vitols, S., Kluge, N., 2011. *The Sustainable Company: A New Approach to Corporate Governance*. ETUI.
- Vogel, D., 2008. Private Global Business Regulation. *Annu. Rev. Polit. Sci.* 11, 261–282. doi:10.1146/annurev.polisci.11.053106.141706
- Wahal, S., McConnell, J.J., 2000. Do institutional investors exacerbate managerial myopia? *J. Corp. Finance* 6, 307–329. doi:10.1016/S0929-1199(00)00005-5
- Wapner, P., 1995. Politics Beyond the State: Environmental Activism and World Civic Politics. *World Polit.* 47, 311–340.
- Weyzig, F., Kuepper, B., van Gelder, J.W., van Tilburg, R., 2014. The price of doing too little too late. Impact Carbon Bubble EU Financ. Syst. Rep. Prep. GreensEFA Group–European Parlam. Sustain. Finance Lab Profundo Green Eur. Found. Rep. Was Comm. Greens Eur. Free Alliance Eur. Parliam.
- Whelan, T., Fink, C., 2016. The Comprehensive Business Case for Sustainability. *Harv. Bus. Rev.* 21.
- Winnard, J., Adcroft, A., Lee, J., Skipp, D., 2014. Surviving or flourishing? Integrating business resilience and sustainability. *J. Strategy Manag.* 7, 303–315. doi:10.1108/JSMA-11-2012-0059
- World Economic Forum, 2017. *The Global Risks Report*.
- World Economic Forum, Oliver Wyman, 2015. *Social Innovation*.

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