

This is a repository copy of *Economic development*, *climate change and the limitations of corporate social responsibility*.

White Rose Research Online URL for this paper: http://eprints.whiterose.ac.uk/79451/

#### **Book Section:**

Toms, JS (2013) Economic development, climate change and the limitations of corporate social responsibility. In: Haynes, K, Murray, A and Dillard, J, (eds.) Corporate social responsibility: a research handbook. Routledge, 28 - 40. ISBN 1136256482

#### Reuse

Unless indicated otherwise, fulltext items are protected by copyright with all rights reserved. The copyright exception in section 29 of the Copyright, Designs and Patents Act 1988 allows the making of a single copy solely for the purpose of non-commercial research or private study within the limits of fair dealing. The publisher or other rights-holder may allow further reproduction and re-use of this version - refer to the White Rose Research Online record for this item. Where records identify the publisher as the copyright holder, users can verify any specific terms of use on the publisher's website.

## **Takedown**

If you consider content in White Rose Research Online to be in breach of UK law, please notify us by emailing eprints@whiterose.ac.uk including the URL of the record and the reason for the withdrawal request.



# Economic development, climate change and the limitations of corporate social responsibility

By

## **Steven Toms**

(University of Leeds)

## **Abstract**

The chapter argues that the reform of the corporation to promote greater social responsibility is an unlikely solution to the crisis of climate change. The managers of business organisations are relatively powerless in the face of the powerful market forces which drive increasing consumption of the world's resources. In particular the strong association between the development of oil resources, the worlds markets and productive capacity are noted as the key determinants of climate change. Responses to the challenges of climate change are best formulated through predictive analysis of its key determinants, along the lines of the 2007 Stern Report and the debate it has subsequently engendered. In view of the correlation between oil consumption, world and sustainable population, peak oil poses as strong a challenge to economic growth as does significant climate change.

# Introduction

The corporate social responsibility (CSR) agenda is increasingly conforming to a standard corporatist narrative. In this view, the notion of corporate social and environmental responsibility suggests, almost by definition, the corporations are

the key agency in the climate change debate. For Dillard and Murray, their actions are simultaneously negative and positive. They can be negative where they contribute to increasing income inequality, resource depletion and their associated injustices, environmental pollution, consumer rights, child labour, corruption, and support for military regimes. They might be positive where they create employment and contribute to economic development. Because of this apparently ambiguous role, Dillard and Murray provide a helpful deciphering exercise. Inevitably from such a starting point, theirs is a journey into the soul of the corporation. For shorthand below, this and similar approaches that dominate the accounting and management literature, are referred to as corporatist.

Corporatism can be logically classified as an extension of the theory of the firm, and can be usefully contrasted with a theory of markets. In market based approaches the firm, and specifically the behaviour of its managers, is conditioned by powerful external forces. These forces are physical as well as economic, and this chapter differs from the sections of market based economic theorists and lobbyists that seek to deny the association between oil based industrialisation and global climate change. The argument in this chapter is nonetheless, that in the business and management literature at least, scant attention has been given to market based explanations of the environmental crisis.

Instead the agenda has been dominated by the notion of the powerful, but ultimately reformable corporation. For Dillard and Murray this means that corporations (along with governments and academics) act in the public interest, and that the managers of these corporations are the important agents of ethical behaviour. To act in the public interest is to 'enhance the wellbeing of society

within the context of sustainable natural, social, and economic systems' (Dillard & Murray, this volume, page reference to be inserted). This chapter will examine the likelihood that corporate managers will rise to this challenge. To do so it will contrast corporatist and anti-corporatist perspectives in the business and management literature to open up the possibility of analysis that is not dependent on the ethics of managers as individuals or as a managerial class. In doing so, it will outline the limitations of corporatism as a solution to threat posed by climate change. In contrast it will show how market based approaches can provide stronger explanations of the processes at work. It shows why economics is an important foundation for the task of accounting for climate change and assisting with policy driven responses. From an empirical perspective it shows why a peak in oil production might be a more serious determinant of the future than climate change. The chapter concludes by arguing that the corporate social responsibility literature should engage more constructively with environmental economics, so that the respective strengths of the disciplines can be used to influenced to improve business decision-making, mitigate the effects of damaging business activity and influence the policy response to the challenges of peak oil and climate change.

# **Corporatist and anti-corporatist perspectives**

Corporatism almost subsumes all the approaches used in the CSR literature: the stakeholder perspective (Ullman, 1985, Roberts, 1992), legitimacy theory (Guthrie and Parker, 1989, Patten, 1991, Neu *et al*, 1998) and most of the political economy (Tinker, 1991, Gray *et el*, 1995) perspective. Following Berle and Means's (1932) identification of the managerially controlled corporation, the managerialist political economy view tends to regard firms as hierarchically

controlled monopolies behaving negatively and wastefully and is founded on the notion of management as a class (Burnham, 1962, Baran and Sweezy, 1968). These managerialist tendencies within the management and accounting literature can be differentiated from anti-managerialist alternatives (Rowlinson, Toms and Wilson, 2006, 2007). Anti-managerialism in its mainstream form 'maintains that even if there has been a separation of ownership from control, the managers who control corporations are constrained to do so efficiently by the combined pressures from product, labor, and capital markets, with accounting as the means of constraint from the latter' (Rowlinson, Toms and Wilson, 2006, p.683-684). Transaction cost, evolutionary, population ecology and new institutional perspectives are examples of these approaches which also inform positivist accounting theory.

According to this view, the development of managerial bureaucracies in organisations is explained by transaction cost reductions where internal managers are able to make better decisions about investments than external capital market participants, for example in the presence of information costs. Transaction costs include toleration of sub-optimal performance by managers and the consumption of managerial rents where organisations cannot replicate market equivalent incentives. Because transaction costs are unavoidable, there is no conceptual difference between managerial rent and personal consumption of either business assets or residual claims by owner/managers. Unregulated CSR and stakeholder engagement initiatives by managers and philanthropic activities by entrepreneurs can be respectively interpreted in these terms. However, the transaction cost advantage of internalised decision making is transient. For example contrast the rise of the diversified holding company in the UK before 1980

with the tendency towards subsidiary divestment, buy-out and delayering subsequently (Toms and Wright, 2002).

Although transaction cost theory explains powerful constraints on managerial behaviour, the nature of those constraints is not usually analysed. For example, shareholders are assumed to be a homogeneous group with the same expectations. However, for the same reasons that managers cannot act as a cohesive class, shareholders also cannot engage in collective action due to moral hazard and free riding problems (Watts and Zimmerman, 1986). Insofar as solutions to the problems of impending climate change are required, mainstream economics predicts an anarchic response.

In contrast to mainstream anti-managerialism, Rowlinson et al (2006) also identify a radical anti-managerialist school. This approach corresponds to an orthodox Marxian theory of capitalism that predates the work of Braverman, Baran and Sweezy and Burnham) on monopoly and managerial capitalism. In this view capitalists (as opposed to managers) are compelled to maximise profit by the forces of competition. They fall victim to crises of over-production because labour as the source of value does not receive the full value of its output as wages, resulting in overproduction and periodic crises. These are only mitigated through demand stimulants such as (over) expansion of credit and development of overseas markets.

Radical anti-managerialism is therefore the one element of political economy offering a critical perspective that does not follow the corporatist line of argument. Instead it suggests that ownership and control have not been separated in any meaningful way and that managers will still be subservient to the profit maximising dictates of the capital markets. 'A part of the bourgeoisie wants to redress social grievances in order to assure the maintenance of bourgeois

society' wrote Marx and Engels (1848, [2007], p.39) in the *The Manifesto of the Communist Party*, and [t]o this section belong economists, philanthropists, humanitarians, improvers of the condition of the working class, organisers of charity, members of societies for the prevention of cruelty to animals, temperance fanatics, hole-and-corner reformers of every imaginable kind'. Echoing these sentiments in a critique of the managerialist view, Nichols (1969, pp.66-67) argues that managerialism opens the way for the reformist 'belief that managers are more manageable than capitalists' (Nichols, 1969, p.66) and that separation of ownership and control weakens the 'theoretical justification for radical as opposed to reformist policies' (Nichols, 1969, p.67). In other words, 'if managers are no longer constrained by capitalist property rights and the need to preserve the privileges of capitalist owners, then they could be pressurized to become socially responsible in what they decide to produce and in how they manage labour' (Rowlinson, Toms and Wilson, 2006, p.695).

Insofar as managers are indeed unconstrained by property rights, there remains the possibility that they can redirect their corporations in an ethical direction and save the world from the effects of climate change. In the next section this proposition is subjected to detailed critique.

## **Limitations of corporatism**

There are a number of limitations in the corporatist narrative as outlined by Dillard and Murray. The first is that its managerialist approach necessarily has a narrow focus. The economy is regarded as a social construction, 'rather than a natural phenomenon such as the weather' (Dillard and Murray, this volume, p. ). Whilst agreeing that economy and society are closely inter-related, 'social construction' implies a visible hand at work. The question is therefore whose

hand, and the answer, naturally in the corporatist view of the world, has to be the corporation. So corporatism is a critique of only the corporation, not capitalism itself, nor of capitalist property rights. Advocates of classical capitalism from Adam Smith through subsequent twentieth century economists such as Hayek place the organic processes of market competition, not the joint stock company or the corporation, as the motor of development (Desai, 2001). Marx's critique of capitalism is likewise one of marketplace anarchy, and so as Marx famously suggested, 'men make their own history, but they do not make it as they please; they do not make it under self-selected circumstances, but under circumstances existing already, given and transmitted from the past', and this is as true for capitalists as it is for Louis Bonaparte, as they search for profit opportunities in a disequilibrium dynamic system which reproduces itself through cycles and crises. Dynamism arises from developments in technology, itself an organic process, influencing the composition of capital in Darwinian fashion. It is on this economic base that the social superstructure is erected and modified, modifying in turn the investment of financial resources that govern further technological development. In this sense, society is constructed, by the industrial base, although the point is not merely a question of semantics. If we are to understand the threats posed to the environment by the development of capitalism, the evolution of technology and the development of the productive forces needs to be at the centre of our analysis. Specifically this refers to the way in which oil has been developed and used as a resource.

A second problem with the corporatist approach to social responsibility is that corporations are seen as the necessary agents of any potentially positive change. In this view, rather than seeking out new profit opportunities, reformed

-

<sup>&</sup>lt;sup>1</sup> Marx, K. The Eighteenth Brumaire of Louis Bonaparte.

corporations would now act in the public interest. However there is no indication of why they would begin to do this and how the moral hazard problem of individual corporations sacrificing profit for ethics whilst others continue as usual will be overcome. Even if national governments regulate in favour of ethical behaviour, the moral hazard problem persists if other governments do not. Only two solutions remain; one, regulation of corporations by a world government, or two, the realignment of profit opportunities with ethics. Regulated profit rates by an international organisation (the Catholic Church), which persisted for many centuries before the industrial revolution (Toms, 2010) is a variant of the first solution. In the modern version of such regulation, socially acceptable rates of profit effectively transform shareholders into an equal stakeholder group, since they are no longer entitled to the residual surpluses and all profits over and above the accepted level are reinvested in ethical activities. Such a solution is as only as likely as its necessary condition, the creation of a world government, and is even less likely without the wholesale dismantling of financial markets and similar institutions predicated on profit maximising behaviour. The second solution might evolve in cases where firms see profit opportunities as consistent with ethical behaviour. An example is the development of bio-fuels as a function of the rising cost of oil extraction. Although the development of such an industry would potentially alleviate the threat of global warming, the scenario can nonetheless develop without reference to ethics. In this case, the change agent is the market and competition, since new entrants specialising in bio-fuels are not deterred by entry barriers created by oil firms. Indeed oil firms face sunk costs that act as exit barriers from their own markets making them less likely to compete effectively with bio-fuel suppliers. In none of these scenarios is the change agent the benevolent or reformed corporation.

The third problem in the Dillard and Murray account is the Malthusian subtext of too many people and not enough resources. In this case there is a deviation from corporatism into consumer and market behaviour. Particular reference is made by Dillard and Murray to commodification and addictive consumption as being fundamental problems. Clearly, gratuitous consumption of over-packaged goods whose demand is generated solely by advertising adds to the weight of the overconsumption problem, particularly if western patterns of conspicuous consumption are exported to the developing world. It is not clear why, however, as Dillard and Murray suggest, that the economics paradigm leads to the neglect of this problem, since in this part of their argument they are closest to analysing market behaviour. Although it is in some degree a matter of consumption preferences, these commodities still require production, and disequilibrium between production and consumption is the dynamic of capitalism, explaining both surges of development and periods of crisis. Even so, in the corporatist narrative where the visible hand of the reformed corporation shapes the future, a principle objective will need to be the reduction, at the behest of corporations, of living standards in the west and the continued denial of western levels of consumption to developing countries. Even if it is necessary, it is unlikely to allow the corporations to draw popular support behind the programme. It cannot therefore be a manifesto for democratic public interest engagement.

Presenting a brief history of CSR, Murray and Dillard argue that the decisive event of the second half of the twentieth century was the globalisation of trade. In particular they point out the role of trade driven by profit, as opposed to the mutually supportive trading networks of earlier island societies. Whilst it is clear that trade has expanded rapidly since 1950, it has been driven

by technology rather than the profit motive. In that time, the development of oil reserves and associated advances in extractive, refining, processing, distributive technology has driven new and dramatic advances in agricultural and industrial productivity (Boserup, 1981). Corporations, many of them state owned,<sup>2</sup> have played their part but the progress of investment in these technologies has been hindered as much as assisted by the availability of capital, particularly during recessions.

Insofar as corporations are responsible for environmental damage, they need to be held to account by 'society' in the framework cited by Dillard and Murray and developed by Yuthas and Dillard (1999), Dillard and Yuthas (2001), Dillard (2007) and Niebuhr (1963). Reified in this fashion, the notion of society is unhelpful, as distinct social forces or actors cannot be specified. Even the society itself can be difficult to specify for an oil multi-national operating in several countries. These problems are compounded by another aspect of the Dillard and Murray model, which suggests that for accountability to be effective, there must be a Habermasian ethic of communication. However, it is difficult to see in this model what branch of society managers might choose for the purposes of accountability. If the responsibility for the custody of assets is conferred on corporate managers by society in general (Dillard and Murray, table 1, this volume), and the authenticity and validity of communication between corporate managers and society is to be determined by reference to social norms, it is necessary to identifying what these norms might be. Dillard and Murray recognise there is a problem, particularly if these norms are to be determined by private sector and market place values. An ethic of accountability is therefore required, and the responsibility for developing and enforcing the ethic lies with

<sup>&</sup>lt;sup>2</sup> V. Marcel, *Foreign Policy*, Sept/Oct 2009; http://www.foreignpolicy.com/articles/2009/08/17/states\_of\_play

the accounting profession. However, there is no reason to suppose that the ethical values of the accounting profession, as a profession, would be any different from those of the society in which it operates<sup>3</sup>, or that individual members of the profession would be any different in their range of ethical standpoints than a sample of the general population.

Where Dillard and Murray analyse society, they create a world of false dichotomies. For example: 'The private sector operates in the economic domain. The public sector operates in the political domain'. However this is clearly only true in a world where governments have no economic policies and firms do not influence public policy or the political process. Indeed the separation of the political and economic is nothing more than the foundation stone of neo-classical economics (as differentiated from classical political economy). The alternative, as with mainstream anti-managerialism, is the homogenisation of society and the collective action problems arising from moral hazard and free riding.

## Market based explanations

In recent accounting research, market based approaches have helped interpret the consequences of firm behaviour. For example they have examined stock market reaction to announcements by firms about environmental good behaviour, examined the impact of CSER quality signals on firm's reputations (Toms, 2002, Hasseldine et al 2005), and looked at the impact of positive CSR behaviour on financial and economic performance (Toms, 2000, 2002). Overview surveys, for example, Pava and Krausz, 1996; Margolis and Walsh, 2001; Orlitzky, Schmidt, and Rynes 2003, suggest that CER is supportive of

<sup>&</sup>lt;sup>3</sup> Indeed, as Tinker and Gray (2003) argue, the accounting profession is easily dominated by the large accounting firms.

competitive advantage and improved financial performance and that therefore corporate managements at least are likely to be increasingly supportive of such investments.

To some extent these empirically based surveys complement the corporatist view, and show that 'good' environmental performers are typically rewarded by markets. Some of these studies argue that these results arise because positive policies towards society and the environment allow firms to differentiate their products and therefore charge higher prices, in well known examples of such as the Body Shop. Although the results are entirely plausible, this is bad news for the corporatist argument. For differentiation to be successful there must also be in the same market firms whose products are undifferentiated on any given ethical criterion. In other words in an unregulated market there are likely to be as many unethical firms as there are ethical firms. Other empirical research has suggested there may indeed be an inverted U-shaped relationship between ethical standpoint and economic performance (Wang, Choi & Li, 2008). Very bad firms perform well, and so do very good ones, but there is an underperforming ethically neutral centre. Research has tended to concentrate on the good firms.

More research is needed on the bad, given capitalism's general reliance on identifying new sources of profit through the exploitation of human and natural resources. A pilot study (Beck and Toms, 2009) has shown that multi-national oil firms that drill in countries with repressive regimes are less likely to disclose information about their treatment of labour but more likely to offer a positive message on green issues. The latter is intended for consumption by worried home country shareholders who can draw their own conclusions about the firm's environmental performance without being aware of labour exploitation issues in

far flung repressive states. Unsurprisingly where multinational energy firms operate in more than one country there green message tends to more strongly focused on the society where there shares are quoted than in the one where the resources are being extracted (Hasseldine and Toms, 2009). Although such corporate behaviour appears somewhat janus faced and might again be in need of some deciphering, it is actually straightforward profit maximisation, as the greenwash can achieve good PR at low transaction cost whilst allowing the firm to make serious profits from dealings with repressive regimes to allow successful resource exploitation.

# Accounting for global warming

# The importance of economics

For the reasons noted above, economic issues are problematic for Dillard and Murray. In their view, economic concerns are exaggerated and present a challenge to the advocates of greater sustainability. Separating economics from sustainability is however entirely unrealistic, and indeed counter-productive as the analysis below will confirm. Oil exploration and extraction is the key driver of industrial and agricultural production, which in turn allows a larger population to be sustained. In other words, technology and the development of the industrial base explain the challenges to sustainability.

It may be that the apparent problem with economics is that it fails to cost environmental damage and other externalities, which Dillard and Murray and many others suggest is the case. However, economists have spent a great deal of time, inter alia, examining the value of exhaustible assets to present and future generations (for a detailed summary of empirical surveys since 1994, see

Tol, 2009, p.31). Now the question of how to discount the effects of present environmental damage on future generations lies at the centre of the debate on the Stern (2007) report. Because financial and climate change models are projected well into the future, the value of externalities forecasted from the effects of climate change is highly sensitive to the choice of discount rate (eg Nordhaus, 2007). Where economics, and indeed science, is problematic, it is where arguments are made for the choice of a high discount rate to reinforce complacency and 'business as usual attitudes' to climate change prevention in the form of carbon taxes.

The key task for environmentalists, governments of countries facing direct threats from climate change, and those concerned with sustainable development generally, is to support the conclusions of the Stern (2007) report and identify arguments in favour of a low discount rate. Recent developments in financial decision making techniques, such as real options, provide opportunities to value assets, building in climate change associated conditions such as irreversibility (Pindyck, 2007). Research should therefore involve quantifying climate change effects as more data becomes available, and using economic and accounting techniques to do this, rather than ignoring economics out of a sense of frustration that it is somehow a privileged narrative.

Of course, such an approach will not have any direct effect on corporations by making them take externalities onto their balance sheets or leading them to disclose more information about these effects of their activities. Non trivial rates of carbon tax would achieve this more effectively, but would still be dependent on the selection of realistically high discount rates in climate change models (Nordhaus, 2007).

Corporations might in any case be motivated by resource market effects to restrict output and thereby delay the impact of climate change effects. A well known result from the standard theory of the firm is that in contrast to competitive markets, monopolies will restrict output and raise prices. According to these assumptions at least, the corporation, where large and monopolistic will be slower to use up natural resources than an equivalent number of competitive firms, and as resources diminish the opportunity to restrict output and raise prices will rise (Hotelling, 1931). Although such actions might benefit the climate, or at least slow down ultimate climate damage, their effects would be unlikely to be in the public interest. Increased prices for basic resources, which might also be a consequence of carbon taxes, will have serious consequences for agricultural and industrial productivity, potentially restricting access to essential resources for large numbers of the world's population. The scale of this problem and the dilemmas faced by CSR advocates are made clear in the next section.

# Accounting for climate change

In this section a review of the evidence will show that although corporations are implicated in activities promoting climate change, they are neither its direct cause not its solution. These points can be illustrated in the graphs in figure 1 and figure 2. Figure 1 shows peak oil, or the Hubbert curve. The take off in oil production after 1950 should be noted. Figure 2 shows three graphs together, for the purpose of illustrating the correlation with oil production in figure 1 and the three closely inter-related consequences of rising population, carbon emissions and global temperatures.

The first graph in figure 2 shows the well known hockey stick curve, which has successfully focussed scientific and political attention on the scale of the

climate change. Whilst the hockey stick curve is useful for noting the extent of the discontinuity against long run trend, it does not clearly reveal the turning point. Closer scrutiny shows that a break point occurred around 1950 with a sharp upward trend thereafter. The nineteenth century period of coal based industrial growth does not appear to have caused a movement in global temperatures beyond the normal range of variation. It is therefore not the case that industrialisation as such has contributed to the rapid upward movement in temperatures. As the graphs in figure 2 show, the rise in global temperatures, population and oil consumption are closely correlated. The development of oil resources since 1950 has been exponential, as the peak oil graph in figure 1 shows, and has formed the basis of and character of economic growth. Oil resources allow the expansion of agricultural production through the use of fertilisers and pesticides and facilitate the transport of large quantities of food over long distances (Boserup, 1981, p.70). A much larger population can be sustained on this basis and as with previous phases of industrialisation (Landes, 1989) the Malthusian constraint of limited food supply has been overcome, at least temporarily.

In view of the close correlation between global temperatures and oil based population growth, it is possible that global temperatures might begin to revert to natural averages once peak oil is reached.<sup>4</sup> Whilst this is good news for the environment, the implication is nonetheless serious for the level of population that can be sustained in a post peak oil world. As figure 3 shows, the oil price has been relatively stable during the upside of the peak oil curve, but can be expected to become very expensive if alternatives are developed less rapidly that the peak oil decline.

\_

<sup>&</sup>lt;sup>4</sup> Insofar as path dependencies and positive feedback loops do not mean temperature rises become irreversible.

## **Conclusions**

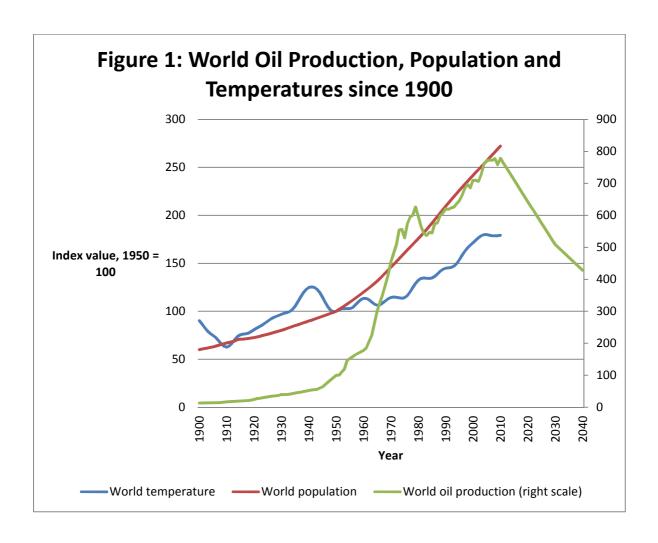
If the correlations shown in figures 1-4 are accurate as predictors of the future, then the agenda for policy makers is the avoidance of serious social and economic collapse and associated disorder in the post peak oil world. The CSR agenda is implicated in this changed world. The top priority is the development of new sustainable technologies that can manage the requirements of peak human population. If markets work effectively in terms of communicating price signals at least, the likely profitability pay-offs for such investments should render them increasingly worthwhile. Associated research and development is also the responsibility of governments, in part to complement market price signals to create the environment in which these activities can take place.

The corporate social responsibility literature should also reflect this agenda. Rather than seeking to amend the ethical behaviour of corporations, managerial accounting and financial decision making techniques should evolve to support the complexities of investment decision making under uncertainty with long lead times, particularly where population and market dislocation threats are serious. The trends referred to above will have important impacts on asset valuation that should also be accommodated. If the climate change threat is immediate, or the oil price volatility is set to increase, then differences between the discount rates implied in the post Stern report debate should become less academic. Indeed there is less reason why these and financial market derived discount rates should differ at all in the longer run. These are serious issues for accountants, economist and policy makers to be involved with. If they go about their business in an ethical fashion, considering the welfare of all the planets inhabitants, then so much the better.

## References

- Baran, P and P Sweezy (1968) *Monopoly Capital* (New York; Monthly Review Press)
- Beck, M. and Toms, S. (2009) "Accounting Disclosure and Human Rights" in Mallin, C. (ed) *Case Studies in Corporate Governance*, Cheltenham, Edward Elgar, pp.194-215.
- Berle, A.A. & G.C. Means 1967 [1932]. *The modern corporation and private property*. New York: Macmillan.
- Boserup, E. (1981), Population and Technology, Basil Blackwell.
- Burnham, J. 1962 [1941]. *The Managerial Revolution*. Harmondsworth: Penguin Books.
- Desai, M. 2001. Marx's Revenge. London, Verso.
- Dillard, J. 2007. Legitimating the Social Accounting Project: An Ethic of Accountability. in *Sustainability Accounting and Accountability* (J. Unerman, B. O'Dwyer, J. Bebbington, eds.). London: Routledge Press Chapter 2:37-53.
- Dillard, J. and Yuthas, K. 2001. A responsibility ethic of audit expert systems. *Journal of Business Ethics*. 30:337-359.
- Dillard, J. and Murray, A. (2012) 'Deciphering the Domain of Corporate Responsibility' this volume
- Guthrie, J. and Parker, L.D. (1989), 'Corporate Social Reporting: A Rebuttal of Legitimacy Theory', *Accounting and Business Research*, Vol. 9, No. 76; pp. 343-352.
- Gray, R, Kouhy, R, Lavers, S, (1995), Corporate social and environmental reporting: A review of the literature and a longitudinal study of UK disclosure, *Accounting, Auditing & Accountability Journal*, 8,2, pp. 47-77.
- Hasseldine, J. Salama, A. and Toms, S. (2005), 'Quantity versus Quality: The Impact of Environmental Disclosures on the reputations of UK plcs', *British Accounting Review*, Volume 37, Issue 2, pp.231-248.
- Hasseldine, J., Massoud, H. and Toms, S. (2009) 'Asymmetric Response: Explaining Corporate Social Disclosure by Multi-National Firms in Environmentally Sensitive Industries', *Journal of Risk and Governance*, Vol 1(2), pp.157-174
- Hotelling, H. (1931), 'the economics of exhaustible resources', *Journal of Political Economy*, Vol.39(2), pp.137-175.
- Landes, D. 1998. The Wealth and Poverty of Nations. W. W. Norton and Co.
- Margolis, J.D. and J.P. Walsh (2001), *People and profits? The search for a link between a company's social and financial performance*, (London: Lawrence Erlbaum Associates, Inc).
- Marx, K. and Engels, F. (1848)[2007] *The Manifesto of the Communist Party* ,Wilder Publications.
- Niebuhr, R (1963), The responsible self. San Francisco: Harper Press.
- Neu, D, Warsame, H, Pedwell, K, (1998), Managing Public Impressions: Environmental Disclosures in Annual Reports, *Accounting, Organizations and Society*, 23,3, pp. 265-282.
- Nichols, T. 1969. Ownership, control and ideology. London: Allen & Unwin.
- Nordhaus, W. D. (2007), A review of the Stern Review on the Economics of Climate Change, *Journal of Economic Literature*, Vol.XLV, pp.686-702.
- Orlitzky, M., F.L. Schmidt, and S.L. Rynes (2003), "Corporate social and financial performance: A meta-analysis", *Organization Studies*, Vol.24 (3), pp. 403-441.

- Patten, D. (1991), 'Exposure, Legitimacy, and Social Disclosure', *Journal of Accounting and Public Policy*, Vol. 10, pp. 297-308.
- Pava, M. L. and J. Krausz (1996), "The paradox of social cost", *Journal of Business Ethics*, Vol.15 (3), pp. 321-357.
- Pindyck, R.S. (2007), 'Uncertainty in Environmental Economics', *Review of Environmental Economic Policy (2007) 1(1): 45-65.*
- Roberts, R W, (1992), Determinants of Corporate Social Responsibility Disclosure: An Application of Stakeholder Theory, *Accounting, Organizations and Society*, 17,6, pp. 595-612.
- Rowlinson, M., Toms, S. and Wilson, J.F. (2007), Competing Perspectives on the 'Managerial Revolution': From 'managerialist' to 'anti-managerialist', Business History, Vol. 49(4), pp.464-482.
- Rowlinson, M., Toms, S. and Wilson, J.F. (2006) 'Legitimacy and the capitalist corporation: cross-cutting perspectives on ownership and control,' *Critical Perspectives in Accounting*, Volume 17(5), pp. 681-702.
- Stern, N. (2007), *The economics of climate change: The Stern Review*, Cambridge: Cambridge University Press.
- Tinker, T. (1991), 'The Accountant as Partisan', *Accounting, Organizations and Society*, Vol. 16, pp. 297-310.
- Tinker, T. and Gray, R. (2003), "Beyond a critique of pure reason: From policy to politics to praxis in environmental and social research", *Accounting, Auditing & Accountability Journal*, Vol. 16(5): 5, pp.727 761
- Tol, S.J. (2009), 'The Economic Effects of Climate Change' *Journal of Economic Perspectives*, Vol.23(2), pp. 29-51.
- Toms, S. (2000), 'Environmental Management, Environmental Accounting and Financial Performance,' *Chartered Institute of Management Accountants Research Monograph.* London: CIMA Publishing.
- Toms, S. (2002), 'Firm Resources, Quality Signals and the Determinants of Corporate Environmental Reputation: Some UK Evidence', *British Accounting Review*. Vol.34, pp.257-282.
- Toms, S and D.M Wright (2002), 'Corporate governance, strategy and structure in British business history, 1950-2000', *Business History*. Vol.44, No.3, pp.91-124.
- Toms, S. (2010), 'Calculating profit; a Historical Perspective on the Development of Capitalism', *Accounting, Organizations and Society*, 35(2), 205-221.
- Ullmann, A A, (1985), 'Data in Search of a Theory: A Critical Examination of the Relationships Among Social Performance, Social Disclosure and Economic Performance of US Firms', *Academy of Management Review*, 10,3, pp. 540-557.
- Wang H., Choi, J., and Li, J (2008), 'Too Little or Too Much? Untangling the Relationship Between Corporate Philanthropy and Firm Financial Performance', *Organization Science*, Vol. 19, No. 1, pp. 143–159
- Watts, R. and Zimmerman, J. 1986. *Positive Accounting Theory*, Englewood Cliffs, NJ.



## Sources:

Climate Change statistics: Department of Energy and Climate Change, <a href="http://www.decc.gov.uk/en/content/cms/statistics/climate\_change/impacts\_cc/impacts\_cc.aspx">http://www.decc.gov.uk/en/content/cms/statistics/climate\_change/impacts\_cc/impacts\_cc.aspx</a>, 26<sup>th</sup> Jan 2012. Population data: United Nations, Dept. of Economic and Social Affairs, Population Division (2011). World Population Prospects: The 2010 Revision.Oil production: British Petroleum (BP) Statistical Review of World Energy, 2011, <a href="http://www.bp.com/statisticalreview">http://www.bp.com/statisticalreview</a>; Worldwatch Institute; US Department of Energy, Energy Information Administration, <a href="http://www.eia.gov/petroleum/">http://www.eia.gov/petroleum/</a>; <a href="http://www.eia.gov/petroleum/">http://www.eia.gov/petroleum/</a>; <a href="http://www.peakoil.net/">http://www.peakoil.net/</a>; <a href="http://www.pe