

Does sustainability reporting improve corporate behaviour?: Wrong question? Right time?

Rob Gray*

Abstract—This paper takes its starting point from the ICAEW's 'Sustainability: the role of accountants' – one of the outputs from the Institute's Information for Better Markets initiative. In particular, an important series of questions arise around the extent to which (if at all) accountants can encourage – and should be encouraging – the development of substantive social, environmental and sustainability reporting by large organisations and the extent to which such reporting should be governed by financial market principles and exigencies. The relationship(s) between social, environmental and financial performance and reporting are of increasing significance in this context and this significance is reflected in considerable growing interest in the business, accounting and political communities. At the heart of the matter, there is the tantalising suggestion that social responsibility, financial performance and voluntary sustainability reporting may be mutually constitutive and mutually reinforcing. That such a suggestion is, a priori, highly implausible seems to attract less interest. This paper seeks to investigate these matters in some detail by considering, in turn, what is meant by 'sustainability', the current state of affairs in 'sustainability reporting' and the extent to which social disclosure can be said to be related to the social and/or financial performance of organisations. The analysis suggests that the question set for this paper is mis-specified, that 'sustainability' reporting consistently fails to address sustainability and the increasing claims that financial and social performance are mutually determined and determining is probably incorrect and founded upon a tautology. The central theme of the paper is that sustainability is a matter of such concern that it must be treated as at least as important as any other criteria currently facing business, that sustainability reporting needs to be developed in a mandatory context as urgently as possible and that continuing focus upon the tautologies of social responsibility is a particularly foolish and dangerous enterprise.

1. Introduction

'...information can promote better markets, in the broader sense of markets which deliver outcomes that meet public policy objectives.' (Institute of Chartered Accountants in England and Wales (ICAEW), 2004:14)

*The author is Professor of Social and Environmental Accounting at the University of St Andrews. He wishes to formally acknowledge: the ICAEW for its financial support of this research; Richard Macve for his early helpful comments on the paper; Adam Eruslimsky for his excellent work on collating the global data and the critiques of that data as well as for his work with Crawford Spence on making the first pass through UK Sustainability Reporting in preparation for this paper; and Crawford Spence, Jan Bebbington, Sue Gray, David Collison and colleagues at St Andrews Management School for their helpful comments and suggestions. The author is also pleased to acknowledge the stimulating comments received at the ICAEW 'Information for Better Markets' Conference in December 2005. He wishes to make especial mention of Markus Milne of Otago University who, with himself and other colleagues, has been working on a project examining the interpretation, meaning and influence of sustainability as it is used in New Zealand business. That project has developed a number of (unexpected) parallels with this present work and the two projects have been mutually stimulating. Professor Gray is grateful to Markus for his comments and suggestions. Address for correspondence: the Centre for Social and Environmental Accounting Research, School of Management, University of St Andrews, St Andrews, Fife KY16 9SS. E-mail: rob.gray@st-andrews.ac.uk; www.st-andrews.ac.uk/management/csear

At the heart of accounting – and especially financial accounting and auditing – is the notion of information provided by managers to those outside the organisation – typically the owners – for the purposes of accountability and control. The need for the formalising – and regulation – of this information typically relies upon the ubiquitous separation hypothesis arising, typically, from the size of the organisation vis-à-vis the closeness (see, for example, Rawls, 1972; and Gray et al. (forthcoming)) of the shareholders. In the UK in this regard, the shareholder has always been the stakeholder of primary concern, with other financial stakeholders bringing up second place. Occasionally other non-financial stakeholders have been granted information privileges but, broadly speaking, the needs of non-financial stakeholders (and the non-financial needs of financial stakeholders) are only normally of interest to the extent that their needs coincide with those of the shareholders. The implicit assumption is always that control of the company can be left to the managers, the shareholders and the state.¹

However, with the increasing awareness and concern about social and environmental issues –

¹ It was not always this way – see, for example, *The Corporate Report* (Accounting Standards Steering Committee, 1975).

and, indeed, corporate and economic influence thereon – has come, inevitably, a growth in demands for social and environmental accountability commensurate with the social and environmental power which (large, multinational) corporations exercise. And, on the face of it at least, large international companies have responded with a considerable upsurge in voluntary reporting on social and environmental issues. Whether because of the UK's primary focus on the shareholder – or despite it – the UK has led the way in the production of stand-alone voluntary reports on social and environmental issues. There is, however, considerable and growing doubt and scepticism about the accountability actually delivered by such voluntary reports, (see, for example, *New Economics Foundation*, 2000; Owen et al., 1997; Owen et al., 2000; and Owen et al., 2001). On no other issue is this scepticism – as well as concerns with levels of potential power and the need for accountability – more acute than in the matter of sustainability.

As any observer must notice,² it is increasingly common for business representative groupings to claim a competence in areas connected with sustainability and for companies themselves to allege their contributions to sustainable development. Such claims are essential to the well-being of the planet. If indeed corporations are – and can – deliver sustainability then they are delivering the, without question,³ most essential public policy objective the world has known. For society's well-being, then, it becomes important for companies making such claims to demonstrate the substance of those claims. If, contrariwise, corporations are not delivering – and perhaps cannot deliver within current forms of economic organisation – what is required to put us on a path of sustainable development, then such knowledge is acutely essential to the species.

ICAEW (2004) is one example of an attempt to open up these issues for debate. It does this by teasing out, often in novel ways, current leading-edge practices and trends in order to demonstrate some of the range of social and environmental improvements in current business practice that are possible through incremental change. What is missing in ICAEW (2004), (as in so much that is written on the interface between business/accounting and sustainability) is any *explicit* consideration of how these incremental possibilities will actually satisfy the exigencies of sustainability. How will

'there' be reached from 'here', if one will. That assumption – that incremental change is capable of delivering (and probably will deliver) sustainability – is so typically taken for granted. If it proves to be a false (or even an un-examined) assumption then analyses – of, for example, the potential impact of reporting and/or the relationship between financial performance and social or sustainability performance – are likely to provide us with unreliable conclusions.

It is this potential complexity and the largely un-examined nature of the assumptions that make the task set for this paper less than simple. Put simply: if, as I will seek to demonstrate, there is little or no 'sustainability reporting' then the question 'Does sustainability reporting improve corporate behaviour' ceases to be an empirical question. Equally, if, as I shall also seek to show, the notion of what is 'improved corporate behaviour' is increasingly contentious and founded, in essence, on a tautology, then evidence from research in this field must be treated with considerable care.

It is this need to carefully examine the terms and the implied assumptions within the title that make the task of this paper more complex than might at first seem to be the case. In essence, the backdrop to the paper is as follows. The sustainability of the planet is threatened, as the paper will seek to demonstrate. That threat derives, crudely, from a combination of economic activity and population. Businesses, especially large business, are the engine room of economic activity and, therefore, it is important to know if that economic activity is sustainable and/or whether the individual economic units – the large companies – are themselves sustainable. We live in world where claims to this effect are increasingly ubiquitous. The claims require examination.

This paper will therefore comprise three substantive sections.

The first section will (briefly) consider the notion of sustainability. It will do this for three reasons: first, the pressing issues of sustainability form the motivation for this paper; second, if we are to examine 'sustainability reporting' we need to know what is meant by that term; and third, by developing our understanding of sustainability we can more carefully assess whether or not the significant body of research evidence on the relationship(s) between social and financial performance and disclosure have relevance to our consideration of sustainable development.

The second substantive section of the paper will then formally introduce and examine what is meant by 'sustainability reporting'. The implications from this examination are potentially varied and include what can be learned from corporate self-reporting about corporate social, environmental and sustainability performance and the extent to

² And the paper will seek to demonstrate.

³ The survival of the human species as a whole is not, in fact, an uncontested *desiderata*. Not least are those who argue that the human species has caused so much damage that our moral right to continue to exist is questionable. This paper will remain with the more anthropocentric assumption suggested here.

which such reporting is likely to produce the information inductance effects (see, for example, Prakash and Rappaport, 1977) that might lead to 'improved' corporate behaviour.

The third section considers the considerable body of research into the relationships between social and environmental performance and disclosure and financial performance.⁴ This is a body of evidence which is drawn upon frequently in business-sustainability discourse (see, for example, Schmidheiny, 1992; Schmidheiny and Zorraquin, 1996; and Oberndorfer, 2004) and it is therefore crucial to know to what extent such appeals to evidential support are reliable.

The paper then concludes with a synthesis of the evidence and arguments considered. A short Appendix to the paper provides a number of suggestions for future research.

2. Sustainability: what the data says

'If we could shrink the world to a village of 100 people, pro-rata there would be 57 Asians, 21 Europeans, 14 from the Western hemisphere, north and south, and eight Africans. Eighty would live in sub-standard housing, 70 would be unable to read, 50 would suffer malnutrition. Six would possess 59% of the world's wealth and all of them would be from the US. Only one would own a computer.' Reported in *EcoSoundings, Guardian Society*, Wednesday February 14 2001:8.

Sustainability – or more usually sustainable development⁵ – is commonly defined as development which: *'meets the needs of the present without compromising the ability of future generations to meet their own needs'* (United Nations World Commission on Environment and Development, 1987:8). The notion is typically thought of as a global and spatial concept – and therefore one which is difficult to apply at the organisational level (see below). It is a notion generally thought to comprise two subsidiary notions: preservation of the natural environment's capacity to continue to support life⁶ and a social justice component through which there is a sense of equity with which peoples have access to environmental resources. Clearly, neither of these is a simple or incontestable idea but, by most normal ethical stances (see, for example, Norton, forthcoming), they are key *desiderata* for any civilised notion of humanity. Equally, as I shall attempt to summarise here, there is a fairly compelling weight of evidence to suggest that neither of these *desiderata* are currently being met and, collectively, we are in danger of moving further and further away from a condition of potential sustainability.

While such a conclusion would be of concern to

us, we might think that it would be a matter, primarily, for government policy.⁷ However, as has been well-documented, (see, for example, Beder, 1997; Mayhew, 1997; Schmidheiny, 1992; and SustainAbility/World Wide Fund for Nature, 2005) business groups such as the World Business Council for Sustainable Development and the International Chamber of Commerce have sought to both influence government policy with regard to sustainability and, more importantly, sought to appropriate the sustainability agenda under the argument that, variously, business is an essential component of any path towards sustainable development and, at its extremes, the natural environment is safe in the hands of business (see, for example, Turner, 2002; Hawken, 1993; Hawken, Lovins and Lovins, 1999; SustainAbility/UNEP, 2001; Welford, 1997; and Zadek and Tuppen, 2000).

Now, while trying to establish the sustainability of a single enterprise is difficult, perhaps even risible,⁸ knowing something about the collective sustainability of economic units and economic activity as a whole is probably significantly important. That is, on the one hand, if all economic units are un-sustainable, then it is unlikely that the economic totality of the planet will be sustainable in any recognisable way. Equally, if the data relating to planetary condition suggest that collectively we are unsustainable, then we can probably infer

⁴ I will tend to use the terms social disclosure and social performance as generic terms to refer to social, environmental and/or sustainability reporting and social, environmental and/or sustainability performance except where it is essential to draw a distinction.

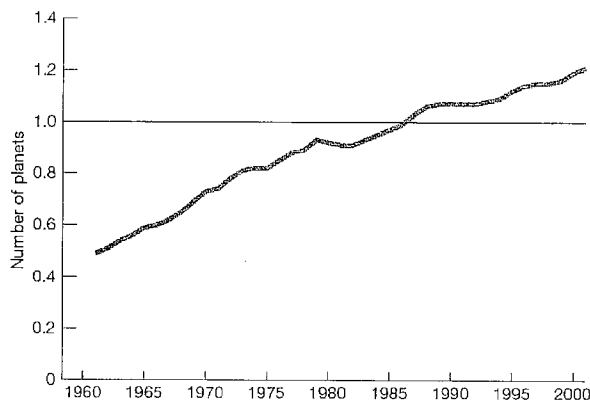
⁵ There seems little value in getting bogged down here with terminology. For the sake of clarity we will be assuming that sustainability is a state and sustainable development is the process through which that state is brought about. The terms as used here are anthropocentric and suggest a scenario which lies at some midpoint between, on the one hand, a position of pure despair and/or a pure eco-centric position and, on the other hand, a position which take as given the more usual economic-growth-as-normal assumptions that typically underlie current economic and business practices, (i.e. optimism/indifference). See, for example, Atkinson et al. (forthcoming). Note, however, as Hajer (1997) argues – sustainable development is also a site of struggle between the dominant social paradigm of 'frontier economics' and a new ecological paradigm.

⁶ This is usually construed as support of human life – hence the anthropocentric emphasis one typically finds in this area.

⁷ I would refer the reader to Martin Walker's excellent review of the papers from the ICAEW Conference in which he makes just this point.

⁸ Not only are there theoretical and practical arguments as to why sustainability may not be applied at an organisational level (see, for example, Gray and Milne, 2004) but while an individual organisation might be clearly unsustainable (e.g. a mining entity) at a particular point in time, under many interpretations of 'sustainability' there is no reason to believe that the system of which that entity is a part should not be collectively sustainable now or at some foreseeable point in the future.

Figure 1
Humanity's ecological footprint, planetary carrying capacity and overshoot
 (taken from WWF 2004, p1)



that the collective of our economic activity is, itself, likely to be unsustainable.⁹ As we will see in the following section of this paper, we are not provided with the data by which we might assess the first of these two. We do, however, have data to help us assess the second.

While we hear of ecological disaster and newspapers offer special reports under titles such as 'Is this the end of the world?'¹⁰ this should not distract us from a series of apparently independent assessments published in recent years. As a representative of informed and expert world ecological opinion, The United Nations Environment Programme (UNEP) *Global Environmental Outlook (GEO) 2002* (UNEP, 2002); The WWF *Living Planet Report 2004* (WWF, 2004); *Limits to Growth: The 30 Year Update* (Meadows et al., 2004); and The United Nations' *Millennium Ecosystem Assessment* (Millennium Ecosystem Assessment, 2005) are an impressive and persuasive phalanx.¹¹ They make extremely unpleasant reading:

'The unfortunate result is that sustainable development remains largely theoretical for the majority of the world's population of more than 6000 million people. The level of awareness and action has not been commensurate with the state of the global environment today; it continues to deteriorate.' (UNEP Global Environmental Outlook 3, 2002)

<http://www.unep.org/geo/geo3/english/overview/001.htm>

One way of expressing their message is through the notion of the 'ecological footprint' – a measure of the land needed to support an activity, a way of life and economy and so on. The following from

World Wildlife Fund (2004) is typical.

Figure 1 shows the trend in mankind's ecological footprint – the amount of land needed to support the species' activities – and the point at which it exceeded the planet's carrying capacity. While this is not a precise science (and WWF 2004 provides a detailed critique of the approach; see also Wackernagel and Rees, 1996), consensus is clear that somewhere between the late 1970s and the early 1990s the planet started using up capital – to continue as we are currently doing will require another planet and the present planet's capacity to provide *sustainable* support is declining seriously.¹² The point is then made with a reciprocal figure (shown as Figure 2 here) which seeks to suggest how the health of the planet as a sustainable habitat for mankind has been declining

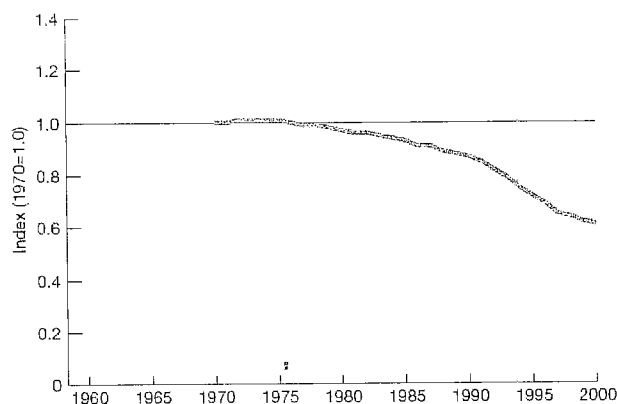
⁹ In this latter case we have then the problem of sorting out which units are making what contributions to un-sustainability – but one step at a time. Equally, a considerable proportion of economic activity occurs in small independent micro businesses in the developing world both within and without the formal sector. It is more that corporate influence extends beyond its size alone.

¹⁰ *The Independent on Sunday* 16 October 2005:32–34

¹¹ I perhaps should stress that these are not the only such reports produced in recent years. I select these for illustration and diversity. For a selection of other approaches and data sources, see, for example, Simms (2005); Brown and Flavin (1999); Francis (2005) and European Environment Agency (2005)

¹² This trend is despite the astonishingly high technological efficiency gains made in capitalistic production over the last 50 years. It comes as no surprise to discover that North America has by far the greatest ecological footprint *per capita* followed by Western Europe. Africa and (currently) Asia-Pacific have the lowest *per capita*. WWF talk of needing three planets if China and India are to consume at current western levels – under the most encouraging of technological assumptions. For more detail, see, for example, Porritt (2005).

Figure 2
Living Planet Index 1970–2000 – Assessment of a Sustainable Earth
 (taken from World Wildlife Fund 2004, p1)



worryingly for some time.

These are stark messages and they are repeated in various forms in the other analyses. Meadows et al., (2004) for example, attempt to extrapolate current trends of land use, water use, consumption etc, and, *under a highly optimistic set of assumptions about technological change*, suggest a range of radical policy initiatives if ‘overshoot’ (the potential for catastrophe measured in loss of human life) is to be avoided. Their optimistic assessment is that humanity has 30 years left in which to make such changes. The Millennium Ecosystem Assessment, based on the work of 1,360 ‘experts worldwide’, reaches a similar conclusion in their report (*Living Beyond Our Means*), arguing that without drastic policy change the UN’s Millennium Development Goals cannot be achieved and:

‘Human activity is putting such strain on the natural functions of Earth that the ability of the planet’s ecosystems to sustain future generations can no longer be taken for granted.’ (p. 2)

These are chilling words that, I should have thought, we cannot sensibly ignore.

The key to understanding these conclusions is to appreciate both the range and interdependency of the issues about which concern is expressed. Global climate change¹³ may currently be the most obvious of the issues¹⁴ but it is only one of many areas of concern. The reports briefly considered here discuss a wide range of other matters.¹⁵ *It is the combination and interaction of these issues which produce the level of anxiety about planetary sustainability.* It is the systemic interaction between a range of socially and environmentally harmful potentialities that raises the overall per-

ception of a risk of catastrophe.

Catastrophe brought about through ignorance or through the enjoyment of the highest levels of pleasure, freedom from pain and the joys of consumption, whilst hardly admirable, is, at least, potentially understandable. However, scholars in the field of sustainable development have sought to challenge even the apparently incontrovertible assumptions that we¹⁶ in the West unequivocally enjoy considerable improvements in material well-being. They do this by re-casting and recalculating

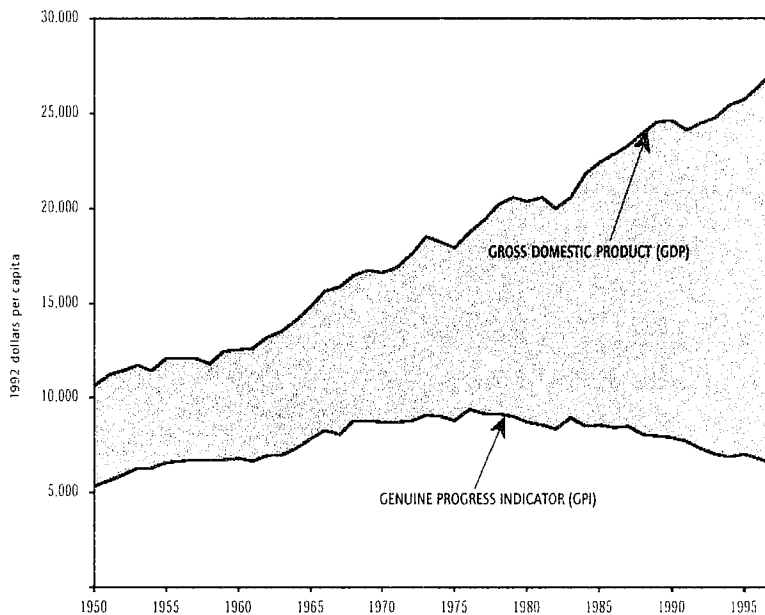
¹³ The question of ‘global warming’ although it has the bulk of opinion behind it remains, as far as I am able to tell, something of an open question. There seems to be a much stronger and more substantive concern over the notion of global climate change. Again, for more detail see, for example, Porritt (2005).

¹⁴ Special Issues run by the *Observer* newspaper on 19 and 26 June speak of the increasingly widespread awareness of the issue. The Financial Industry and Insurers were reported to be involved in separate initiatives to respond to global climate change (Eldis News Weblog on (<http://community.eldis.org>)). For different perspectives on the issue see, for example, Marshall and Lynas (2003) and Webster et al. (2005). However, the real source of persuasion lies with the statements from the United Nation’s Intergovernmental Panel on Climate Change (IPCC).

¹⁵ Issues range from fish stocks, bio-diversity and species extinction to water and oil ownership and usage all the way to pandemic, famine and nuclear war. Such matters are championed by individuals who are not associated with green extreme groups; the UK’s Astronomer Royal, Sir Martin Rees (*The Observer* 17 April 2005:17) and financier Jim Mellon (*Observer Business*, 25 September 2005:4) are eloquent on the issues. A recent report from 2020 Fund’s Global Stakeholder Panel survey of over 1,000 civil society leaders reveals that 20% believe that irreversible harm has already occurred, (see www.2020Fund.org).

¹⁶ The sort of easy fallacy often made when discussing well-being. The disparities between rich and poor in the wealthy countries is considerable and growing.

Figure 3
GDP and Wellbeing, USA 1950–97



our normal approximations of social welfare – GDP/GNP. The experiments with ‘Green GDP’ and ‘Green National Income Accounts’ (see, for example, Pearce et al., 1989; Anderson, 1991) are relatively well-known. The more substantive attempts to drive ‘alternative indicators’ recognise that material well-being, on the one hand, and welfare and happiness, on the other are not the same thing. This has led to the production of measures such as the Genuine Progress Indicator – GPI (Cobb et al., 1995) and the Index of Sustainable Economic Welfare – ISEW (Daly and Cobb, 1990).

Figure 3 (see also Daly and Cobb, 1989) suggests that well-being in the western nations – most notably North America – has been declining since some time between the late 1960s and early 1980s. The point being that current measures of well-being – GNP – are misleading and that arguments around the protection of a materialist way of life are mis-cast.¹⁷

If one then turns to the examination of the well-being of the poorest on the planet, further mixed messages are received. The Millennium Development Goals¹⁸ were established under Kofi Annan as a minimum set of goals for a civilised and potentially sustainable planet – as far as I know their desirability has not been challenged (except perhaps for being insufficiently ambitious). While some progress has been made in areas such as primary education there remain many geographic regions where levels of hunger and poverty, the indicators for environmental sus-

tainability, disease and development continue to worsen.¹⁹

The combination of data which suggest an increasingly fragile environment, coupled with social data showing a declining welfare in the West, increasing inequality worldwide and a mixed set of messages about the most vulnerable on the planet presents us with a case to answer. The case that the planet is on a path of sustainable development is – *at the most optimistic of interpretations* – not self-evident.²⁰

Of course, the data has been challenged and, very properly, should be treated with care and a degree of scepticism. The ‘cry wolf’ concerns from the past (Malthus, 1798; Jevons, 1865) certainly counsel a degree of caution. Julian Simon is well-known for his challenge to examples of over-simplification and generalisation of trends from data,

¹⁷ The conclusion is not an implausible one if material consumption and well-being is set against over-consumption, obesity, fears for safety, alienation, drug addictions, social dislocation, time poverty, etc. For more detail on the measures of social welfare see, for example, Lucas et al., (2004); Moffatt (forthcoming) and Hamilton (forthcoming).

¹⁸ <http://www.un.org/millenniumgoals/>

¹⁹ See also the UN Human Development Index for more detail and variation on this theme.

²⁰ It is worth also noting that analyses such as these parallel other studies which seek to understand rather better – and in a non-rabid fashion – the pros and cons of corporate involvement in development and to caution over-enthusiastic acceptance of the MNC – bad; Development – good; orthodoxy. See, for example, Christian Aid (2005) and Clay (2005), but see also Bailey et al. (1994a, 1994b, 2000).

(see, for example, Simon, 1981; Simon and Khan, 1984). Solow (see, for example, Solow, 1993) is renowned for his reinterpretation of growth through technological development and thus arguing that the focus should be less on sustainability and more on the appropriate forms of investment for the future. Lomborg's (2001) notoriety²¹ may have obscured the issue that he, like Beckerman (see, for example, Beckerman, 1974; 1995), has argued from an economic point of view as to what is the better cost-benefit approach to social and environmental issues. The persuasiveness of the data itself – to the point of claiming an environmental conspiracy (see also Bailey, 2002) – has been most visibly challenged by the novelist Michael Crichton in his novel *State of Fear* to the point that he was summoned as a key witness before the US Senate's attempts to prove that global warming was 'the greatest hoax ever perpetrated on the American people'.²²

That the situation is not as simple as newspapers and the more simple-minded campaigning organisations might have us believe is a reasonable inference to draw. To conclude that there is nothing to worry about (cf. Bailey, 2002) in the face of such substantive and careful research from many of the world's leading scholars would seem a little foolish. Certainly the close arrival of the WWF (2004) report, the *Limits to Growth* results (Meadows et al., 2004) and the Millennium Ecosystem Assessment (2005) with such similar results provides unusually disturbing reading – even when we know that 'wolf' can be called.

I believe that we must conclude that there is a substantive case here that must be addressed. Of course, it is a case on which a certain conclusion can only be reached after it all becomes too late for the species (i.e. the downside risk of choosing the 'wrong' conclusion is significant). It is, however, a case which, I would have thought, was substantial enough to counsel us to dismiss simple claims of its achievement. Indeed, the complexity of the issues involved suggest that there remains a *major disconnect* between the implication of the global data we have reviewed and the partial and localised data which we will see (below) is chosen as measures of social and environmental performance. That is, for example, that a company which has a reputation for social responsibility among people to whom sustainability is not understood, tells us nothing of the organisation's sustainability. Pollution constraints, whether within or without current legal standards, may well be a necessary condition for sustainable development but they are not a sufficient condition if the legal standards have not been set with global sustainability in mind. Equally, claims of active community involvement can only be assessed as contributing to improved social justice if the involvement entails

some substantial notion of redistribution as a key component.

I fear we must conclude that sustainability is an issue of the profoundest importance to all peoples – including even economists, investors and aggressive CEOs – and that its implications require a non-linear shift away from current measures of social responsibility and performance. The global data tells us that one – perhaps the most rational – inference is that humanity's current system of economic and financial organisation is, in all probability, unsustainable. Until corporate reporting reflects this we are misleading ourselves and failing to address the matters of direct concern.

This issue is explored in the next section of this paper.

3. Sustainability reporting

'Our analysis reveals that most companies fail to give any real insight into what they are reporting on and why they are doing so'. (SustainAbility, 2004:4)

The foregoing provides us with some of the parameters of sustainability and this should, in turn, provide some of the parameters of what is meant when one is talking about 'sustainability reporting'. That is, one might think that when discussing 'reporting on and about sustainability', one might expect some detectable link between what is normally meant by sustainability and what the reporting addressed. As far as I can assess, this is not the case with sustainability reporting. To support – and to try and re-create – this inference I want first to examine developments in reporting practice before seeking to uncover the way in which language is employed to take us from the radical and daunting notions of sustainability examined in the previous section to the relatively anodyne implications expressed in and about that reporting.

The first hurdle in the path of sensible discussion of sustainability reporting is the problem of identifying clearly the documents and processes of reporting with which we are concerned. To address, for example, all stand-alone reporting²³ (particularly those from the early 1990s) would be to run

²¹ His rapid rise to fame as the darling of the Promethean, optimistic, pro-growth lobby was arrested somewhat by his being found guilty of 'misrepresentation' by the Danish Committee on Scientific Dishonesty.

²² For more information on the 'anti-ecological argument against sustainability' see, especially, Bailey (2002) and also *New Internationalist* June 2003:357; Marshall and Lynas (2003) and Fitzroy and Smith (2004). For the material on Crichton see a piece by Jamie Wilson in the *Guardian* Thursday September 29 2005.

²³ It is predominantly (although not exclusively) the case that substantive non-financial reporting addressed in social, environmental and sustainability reporting is undertaken in stand-alone reports (see, for example, KPMG, 2002; 2005).

the risk of including reports which have no intention of addressing sustainability – in any of its guises. By contrast, to consider only those reports which explicitly call themselves ‘Sustainability’ or ‘Sustainable Development’ reports is to restrict discussion to only about 14% of the reports produced in recent years, (ACCA/Corporate Register, 2004). Despite this, as SustainAbility, (2002) notes, there is a general convergence in stand-alone reporting in which organisations are increasingly seeking to address social, environmental, economic and sustainability issues within the same report. Consequently there is a growing tendency to employ generic terms for stand-alone reporting and to assume broadly similar (if implicit) aims in that reporting. The practical consequence of this is that in 1999, KPMG used the term ‘Environmental Reporting’ as the generic term for standalone reporting, in 2002 this had changed to ‘Sustainability Reporting’ and by 2005 this had been adapted yet again to ‘Corporate Responsibility Reporting’ (KPMG, 1999; 2002; 2005).²⁴ ACCA/Corporate Register (2004) identifies eight different titles for stand-alone reports and Erusalimsky et al. (forthcoming) identifies 15 different titles for a smaller sample of reports submitted to the UK ACCA Reporting Awards.²⁵

If nomenclature can be (somewhat heroically) dismissed (as the key business commentators on this area tend to), there are fairly clear broad patterns to be seen. KPMG (2005) reports that 52% of the Global Fortune 250 produced a voluntary standalone report in 2004 (up from 45% in the 2002 survey). The trend towards more widespread reporting, at least among the bigger companies, may stutter occasionally (SustainAbility, 2002), but has continued steadily upwards since its inception in the early 1990s. Similarly, the quality of that reporting has also, we are to believe, risen steadily – at least for those leading edge reports (SustainAbility, 2004: 20) – while the focus in the reports has evolved from pure environmental reporting, through forms of selective social responsibility reporting into an increasing recognition of triple bottom line (TBL) reporting.²⁶

The drivers for this steady advancement are not always evident.²⁷ Indeed, both surveys and field work have identified a range of possible reasons offered for both undertaking reporting in the first place and continuing with the practice, (see, for example, Bebbington and Gray, 1995; Buhr, 1998; 2002; Gray et al., 1995; Gray et al., 1998; De Villiers, 1999; Solomon and Lewis, 2002; Miles et al., 2002; Adams, 2002; Larrinaga-Gonzalez et al., 2001; Larrinaga-Gonzalez and Bebbington, 2001; Mathews and Reynolds, 2001; Elad, 2001; Rahaman et al., 2004; and KPMG, 2005). These reasons have been as diverse as: the growing influence of mandatory reporting; concerns over le-

gitimacy; competition; risk management; markets; innovation; morale; mistake; and concerns over reputation. But what seems increasingly clear is that there seems to be every reason to believe that business-case reasons increasingly dominate the motivations to report – but that those motivations are proving *insufficient* to bring about substantive and reliable reporting from companies globally.²⁸ We have already seen that less than 60% of the world’s very largest companies produce a stand-alone report and, extrapolated across all MNCs, the proportion is much closer to 4%, (ACCA/Corporate Register, 2004). Equally, the report considered to be the best ‘sustainability report’ in the world by the 2004 SustainAbility/UNEP survey, ‘scores’ only 71%.²⁹ While that report (from the Cooperative Financial Services) is considerably in advance of most other stand-alone reports it is still some way off meeting even the SustainAbility/UNEP criteria of reporting on sustainability.³⁰ Indeed, principal commentators on the reporting trends³¹ are forced to recognise the relatively unimpressive achievements of current practice.³²

‘The number of companies reporting is insignificant when compared with the total number of businesses operating in the world today. Organisations’ general understanding of the na-

²⁴ There may well be worthwhile research to be undertaken into this use of language. In this sense, see Markus Milne’s current work, for example Milne et al. (forthcoming); Tregidga and Milne (forthcoming).

²⁵ And the title of the report was not a particularly reliable indicator as to which section of the Reporting Awards – social, environmental or sustainability – the document had been submitted.

²⁶ Other papers which examine stand-alone reports include Kolk (2003); Lober et al., (1997); and Marshall and Brown (2003).

²⁷ Complex reasons are also reported more widely for companies undertaking social responsibility. See, for example, PricewaterhouseCoopers 2002 *Sustainability Survey Report* reported in *Fortune* (26 May 2003) and ‘Where will it lead? 2003 MBA student attitudes about business and society’ from the Aspen Institute, Business and Society Program – both reported in Carroll and Buchholtz (2006:45).

²⁸ I would acknowledge the as yet unpublished PhD work of Crawford Spence here.

²⁹ I will try and demonstrate shortly that the criteria by which the 71% is judged is some significant way from being criteria of sustainability.

³⁰ Just to ensure that the old chestnut about the ‘novelty’ of reporting and lack of clarity over how it might be done is not wheeled out, please recall that stand-alone reports have been in widespread currency for 15 years and social and environmental reporting has been practiced for well over 40 years.

³¹ These are not organisations given to harsh criticism. They are more likely to be associated with bullish enthusiasm and recognition of the (undoubtedly) impressive leading edge of practice provided by voluntary initiatives.

³² *The environmentalist*, the journal of the Institute of Environmental Management and Assessment, reported two reviews of current reporting practice under the heading ‘Woeful environmental reporting’, June 2003:3.

ture of sustainable development is not well communicated by many of those reporting. Many reports fail to address the biggest sustainability issues...’ (ACCA/Corporate Register, 2004:13, 15)

However, the concern we should exhibit over stand-alone ‘sustainability’ reports extends even beyond this anxiety about either volume or the failure to meet SustainAbility/UNEP standards. Thus Paul Monaghan, Head of Sustainable Development of Co-op Financial Services says:

‘... the vast majority of this “reporting” is little more than a selective presentation of highlights. It is a rare business that presents a balanced warts-and-all analysis; and it is rarer still to find one that is actually responsive to shortfalls in social or environmental performance.’ (Greenpeace Business, May 2005:4)

It is probably the case that precise, reliable statements of organisational sustainability are oxymorons. Sustainability is a planetary, perhaps regional, certainly spatial concept and its application at the organisational level is difficult at best, (Gray and Milne, 2002; 2004). It may be, however, that workable approximations of *un-sustainability* can be developed (see, for example, Gray, 1992; Gray and Bebbington, 2000; forthcoming; Baxter et al., 2004; Howes, 2004). One such (probably fairly distant)³³ approximation is that of the Triple Bottom Line (TBL) as developed by John Elkington (Elkington, 1997).

TBL suggests that an organisation needs to seek the highest standards of performance along – and then report upon – the three dimensions of the economic, the social and the environmental. Two of the principle problems with the notion are that there is no obvious means to balance performance on one dimension against another and, equally there is no basis on which to judge what levels of social and environmental performance are acceptable and, ultimately, sustainable. The advantage of the notion of TBL is that the idea is simple and, without doubt, quality reporting on the TBL is possible.³⁴ Unfortunately, as far as anybody can tell, no complete TBL reporting takes place.³⁵ To be somewhat heavy-handed about it: as few organisations produce a plausible TBL report and TBL is, itself, not a particularly good approximation of sustainability, then it is plausible to conclude that few if any organisations could claim to report on sustainability.

The situation is a little less optimistic than this, however. The dominant guidelines to ‘best practice’ in reporting are the Global Reporting Initiative (GRI) Guidelines.³⁶ These guidelines have been unusually influential and have acquired the patina of the global ‘gold standard’ in reporting circles. The guidelines are based explicitly on the

notion of TBL (there are economic, social and environmental indicators as part of the intended reporting package) but it is also, equally clearly, an approximation of the TBL – a ‘work in progress’ if you will – that has some form of TBL guideline as its ultimate goal. Consequently, an organisation reporting against GRI will, at best, be producing an approximation of TBL reporting. In January 2006 the GRI website reported that it had 768 organisations ‘using’ the GRI guidelines and, of these, 149 were reporting ‘in accordance’ with the guidelines. That is, 149 companies could claim that their reporting was approximately to the level demanded by the guidelines.

Again, at the risk of heavy-handedness: in January 2006, 149 companies in the world had succeeded in reaching a level at which they were producing stand-alone reports, which accorded with an approximation of a TBL report which is, itself, a distant approximation of a sustainability report. So, unless there are companies which are reporting and not engaging with GRI or the ACCA reporting awards and are being missed by SustainAbility/UNEP and Corporate Register etc. there are, in all likelihood, *no* companies reporting on sustainability.

So what is a ‘sustainability’ report? How can an

³³ It is not entirely clear just how good or bad an approximation of sustainability TBL might be, and views on this appear to vary. As outlined by Elkington and as considered further in this paper, the TBL appears to be a necessary but certainly not sufficient condition for assessing whether or not an organisation meets the exigencies of sustainability. That is, a visible and reliable estimate of the social and environmental benefits and costs incurred by society in the production of the (predominantly) economic benefit would allow assessment of the extent to which the undoubted economic increases were purchased at the cost of society and the environment. The notion would *not* be an approximation in that sustainability is not an organisational concept as we have seen and TBL includes no notion of carrying capacity, limits and preferences (Gray and Milne, 2002, 2004).

³⁴ Whilst there are attempts at ‘accounting for sustainability’ most notably in the work of Jan Bebbington (CSEAR, St Andrews University) and David Bent and Rupert Howes (Forum for the Future), these are partial and still developing – and a great deal more complex than TBL reporting. (See Gray and Bebbington, 2001, ch. 14, for an introduction). In the meantime, there are pretty clear standards for what TBL reporting might look like. In essence the environmental reporting would be based on reporting a mass-balance (See Savage and Jasch, 2005) and an ecological footprint while the social performance would be reported around a full stakeholder map with detailed reporting of different sorts of information within each of the identified relationships. (See Gray et al., 1997 and Gray, 2000 for more detail on this.)

³⁵ The very best reports over the years from, *inter alia*, the Cooperative Bank, Traidcraft Exchange, Traidcraft plc, FRC, Best Foot Forward, Statoil and possibly Novo Nordisk have exhibited elements of the ideal TBL report but none have shown all aspects – especially both the social and the environmental – and none have both continued the high level of reporting and/or developed towards the ideal.

³⁶ www.globalreporting.org

organisation report on 'sustainability' without, apparently, addressing sustainability? How can the business world give the impression that, not only is sustainability safe in the hands of business but that most organisations have sustainability comfortably and competently in hand? (see especially Oberndorfer, 2004; Willums, 1998; Mayhew, 1997; Beder, 1997).

Sustainable development is, as we have already seen, usually defined as development which: '...meets the needs of the present without compromising the ability of future generations to meet their own needs' (United Nations WCED, 1987:8). As such it is a profoundly disturbing notion and one which, as we have already seen, is probably under considerable threat. But, via a series of superficial but subtle twists and turns, sustainability becomes, in one of the most sophisticated definitions from one of the more knowledgeable and experienced of companies:

'... the capacity to endure as a group, by renewing assets, creating and delivering better products and service that meet the evolving needs of society, delivering returns to our shareholders, attracting successive generations of employees, contributing to a flourishing environment and retaining the trust and support of our customers

³⁷ In the interests of balance it should be noted that at the time of writing BP was, in the UK and US, running a major advertising campaign to raise awareness about carbon foot-printing and thus leading the edge of what is 'best business practice'.

³⁸ It is perhaps necessary to explain why these statements deserve to attract the highest level of caution and, perhaps, derision. In the first quotation, 'companies implementing sustainability principles' is nonsense. First, there is no explanation of what 'sustainability principles' might be – to most sensible commentators sustainability would imply steady state, possibly reducing footprints and redistribution of social justice away from the wealthy – all of which are principles that would cripple most listed companies. They have not been applied to any company in which Dow Jones would have an interest. 'Sustainability' *might* well become a 'catalyst for enlightened and disciplined management' but there is absolutely no way in which anybody can know this at the moment. This is an unsupported assertion. The second statement is ludicrous – corporate sustainability has not been around long, has not been applied in companies and is entirely and utterly unattractive to shareholders because it *might* mean a cessation of dividends. Outrageous, assertive and dangerous, unless, that is, 'sustainability' is taken to mean something entirely different from sustainable development – e.g. 'until the CEO moves on and/or the next merger' perhaps?

³⁹ From time to time companies do make public statements about the probable impossibility of sustainability being achieved within a modern quoted company. These are very valuable statements. Interface, the carpet company, is the highest profile such company of recent years.

⁴⁰ Previous work suggests that businesses largely take the lead provided by company representative bodies in this area (see, for example, Gray and Bebbington, 2000). The lead here tends to be given by WBCSD, ICC, CBI etc. See also, for example, Milne et al. (forthcoming); Tregidga and Milne (forthcoming).

and the communities in which we operate'. (*Making the right choices: BP Sustainability Report 2004*, inside front cover)

Thus does the concept of sustainability involve no apparent conflicts; it consists almost entirely of the company doing nothing particular about the planet or society beyond what might be thought of as best business practice.³⁷ Phrases such as these succeed in *switching our concern away from a business operating within the parameters of a sustained environment to the sustaining of the business assuming that the planet and society are sound* (see also Milne et al. (forthcoming); Tregidga and Milne (forthcoming)). How the aspired-to utopia of a supportive environment might be reached in the face of a dying planet and increasing social injustice is not only not addressed but is actually linguistically excluded by the carefully chosen definition. It seems, from casual observation, that there is a significantly increased currency of such self-delusional statements in and around business and western politics. Such statements are dangerous because they then allow the publication – and acceptance – of such arrant nonsense³⁸ as:

'The performance of companies implementing sustainability principles is superior because sustainability is a catalyst for enlightened and disciplined management...'

and

'The concept of corporate sustainability has long been very attractive to investors because of its aim to increase long term shareholder value....' (*Dow Jones Sustainability Group Indexes Report Quarterly*, 3/9)

And comments such as these become the norm, the accepted, when what should be happening is that more organisations should be starting to think like this:³⁹

'... few [businesses], including Marks & Spencer, have fully appreciated the complexities and challenges of sustainable development. For example, how do we balance the environmental impact of the global transport of products with the potential benefits of trading with the developing world?' (Mike Barry, Sustainable Development Manager, Marks & Spencer in *Greenpeace Business*, May 2005:4)

On the face of it, it would appear as though businesses,⁴⁰ rather than seeking to understand and address the crucial but profound challenge of connecting up the global data examined above with the tangible operations of their organisation, have chosen to ignore the dislocation altogether and would appear to assume that good business performance, reasonable levels of corporate citizenship (whatever that may mean) and a selective

and intermittent approach to accountability will, uncontentiously, deliver the elusive highlands of sustainability.⁴¹ In the most basic terms – and bearing in mind the data and caveats offered in this paper – such a position could only be acceptable if (a) the data we have offered is utterly spurious and the planet and society are in the very finest of conditions; (b) the companies expressing this view are exhibiting a psychological dislocation that is unable to conceive of anything outside the manageability of solutions within current business practice and/or (c) there is evidence which explains how somewhat improved current business practice, including ‘non-sustainability sustainability reporting’, will deliver us on a path of sustainable development. Such evidence has eluded my search.

Given that corporations possess, and are run by, diverse characters, any ultimate explanation may well be a combination of these plus further explanations yet to be uncovered. But, on the available evidence, it looks as if the second may be a significant element. That is, in addition to a psychological difficulty in perceiving of business as capable of delivering anything other than ‘goods’ (as opposed to ‘bads’), business thinking has instinctively subverted the complexities of sustainability into the simplicities of business concepts – the most important of which is risk:⁴²

‘...the different language and concepts used by professionals in ... sustainable development..., one specific way where this language gap can be bridged is to view this as an area of risk management for the purposes of companies and investors’. (George Dallas, managing director, Standard and Poor’s, in *SustainAbility/UNEP* (2004:3)

In order to add a little depth to these speculations and explorations, it seemed sensible to spend a little time examining current ‘sustainability’ reports, especially in order to see if this a priori reasoning was sufficient for our present purposes and/or to see if the language and material in the reports (those which might or might not ‘improve corporate behaviour’) offered a counter-view and more depth to the business case scenarios we have been witnessing here.

A pilot study of 37 of the submissions to the ACCA UK 2004 Reporting Awards Scheme⁴³ was undertaken with the intention of determining whether companies were seeking to bridge this apparent gap between the global data and corporate rationality and, if so, how. Without any attempt to make claims for generality, of the 37 reports analysed, 27 were from quoted companies and 10 from non-quoted or non-company organisations. 23 reports related to companies in the UK FTSE4Good index. While only one organisation

provided an ecological footprint/eco-balance, no organisation provided any other means to assess total resource use and/or total environmental impact. Of the 37, 25 made no mention of social justice and 28 provided no stakeholder map. All but two mention social responsibility; all but two mentioned carbon issues and all but nine gave some attention to bio-diversity. This adds some weight to the suggestion that, while a few organisational reports may come close to sustainable development on one or two aspects, no company comes close to reporting on its sustainability.

The use of language and how ‘sustainability’ in its different guises has been entirely transported from a planetary concept to one relating to business-as-usual-for-the-immediately-foreseeable-future is frequently evident. British Airways (*Social and Environmental Report* 2003:1) talks easily about ‘sustainable financial success’; ‘sustainable expansion’ and ‘sustainable business success’. National Grid Transco (*Operating Responsibly*, 2004:1) takes the combination of buzz-words to a new level:

‘... a responsible business is one which recognises that only profits generated with a clear sense of responsibility are truly sustainable’

United Utilities (*Making Life Better: Our Approach to Sustainable Development*, 2004, pgs 1–3) rehearses a typical and unexceptionable definition of sustainability but then goes on to say:

‘By working sustainably, we can increase financial capital created from ...[various natural and social] resources, and maintain a stable economy. For our company, sustainable development offers

⁴¹ One is minded of ostriches and heads as well as of fables of a king’s marvellous fine clothes – see, for example, Gray (2002).

⁴² Again just to make the point, starvation in Rwanda, drought in Malawi, species extinction in Brazil and ozone-layer thinning in Antarctica are major risks to the planet – and especially to those who are dying of hunger, thirst, cancer or facing extinction. However, they are matters of sublime indifference to most well-managed companies and are therefore not ‘risks’ to be managed. The need to be constantly aware of the differences in perception and levels of resolution is tiring but essential.

⁴³ The need for a pilot study arose because, to my knowledge at least, formal studies of the overall contents of stand alone reports were still relatively scarce. (see also Bebbington and Larrinaga, 2005; Milne et al., 2003). There are, as yet, no agreed ways in which to digest stand-alones in order to permit systematic analysis of them – unlike the formal systems of content analysis derived for social and environmental reporting in annual reports. (see, for example, Gray et al., 1995b). The number, 37, is arbitrary and a result of time and availability. The selection from the UK ACCA Reporting Awards Scheme suggests that this set represents a plausible set of ‘best practice’ in reporting. For more detail see Erusalimsky et al. (forthcoming). The exploration was as much about seeking ways to develop systematic interrogation techniques for stand-alones as it was about providing data for this project.

opportunities ... Using resources efficiently reduces costs. ... Sustainable development aims to improve the quality of life for everyone. ...'

One will find other such merging of apparently contradictory ideas within the same concepts and, as with the KPMG survey title, an increasing tendency to merge sustainability within corporate (probably not *social*) responsibility which in turn would seem to be increasingly represented as a variant on maximising shareholder wealth (see, for example, Liberty International *Corporate Social Responsibility Report* 2004:16; Scottish Power *Environment and Social Impact Report* 2003/04:3). Few seemed willing (or able perhaps) to recognise and mention any possibility of conflict, complexity or challenge embodies in the concept.⁴⁴

Furthermore, assurance appears to make no substantive difference to the extent to which one might rely upon the reports (Ball et al., 2000; Owen et al., 2000, 2001). Despite arguments such as ICAEW (2004:89), until the assurance/audit process is willing to compare what is reported against what is claimed for the reporting (as has been attempted by CSR Network on occasions), the conclusions of (at best) an absence of value-added from the assurance process must stand.

Consequently, the principal source of information through which assessment could be made about organisational social and environmental performance is denied us. Whether those organisations producing sustainability or related reports are, in fact, acting in more virtuous ways, although broadly plausible as a hypothesis, is not a question which can be answered from the reports of the or-

ganisations. The less plausible hypothesis – that reporting organisations are behaving in less unsustainable ways – is equally untestable from the companies' data.

Thus, we can conclude that there is little or no sustainability reporting – despite attempts to convince us otherwise. But in the interests of completeness, if for no other reason, what, if anything, can we learn from this *non-sustainability reporting*? Does such reporting, even if it is unrelated directly to sustainability, improve corporate performance? That is the question addressed in the next section of the paper.

4. Financial markets, social reporting and performance

'It pays to be good but not too good' (Mintzberg, 1983:10).

Interest in the basic relationships between social and environmental disclosure, social and environmental performance and economic performance has been considerable for at least 30 years.⁴⁵ Among the first – and certainly among the more influential – studies to attempt to analyse, codify and draw conclusions from this burgeoning literature is Ullmann (1985). Ullman's conclusions, which have stood until fairly recently, are that research concerning the strength, direction and nature of each of the relationships is largely inconclusive. He cites: lack of formal theorising; poor and inconsistent definition of key terms; and inadequacies in the databases employed as amongst the key reasons for this inconclusiveness. While it is probably reasonable to suggest that theorising has improved a little, the wide range of relatively heterogeneous proxies employed to measure social/environmental performance; the different measures of what constitutes disclosure; and classic problems of *which* measure of financial performance to employ; all combine to obscure whatever relationship might be sought. As Wagner (2001), for example, argues, it remains difficult to be certain whether scholars are searching for non-existent relationships or whether it is the uncertainties and inconsistencies of method that are obscuring the relationships that are being sought.

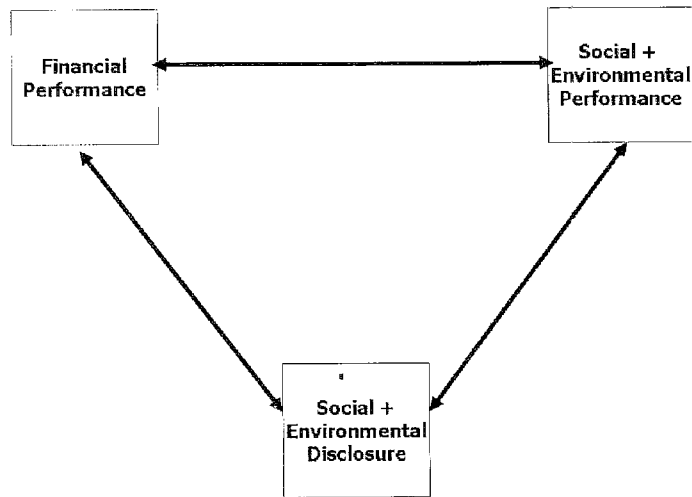
This section of the paper will provide an overview of the findings from the literature concerning each of the three relationships. Of necessity, the review will be far from comprehensive as the literature is considerable.⁴⁶ The review is also not assisted by the fact that the literature is, as we shall see, frequently confused. It is not just, as we have already seen, that there is a variety of forms and sources of disclosure and that neither economic nor social performance can be measured uniquely. It is often not entirely clear whether we should

⁴⁴ One rare example we spotted was that of Pittards *Environmental Report* 2004:16.

⁴⁵ At this point, the vast majority of evidence relating to each of these relationships is drawn from either disclosure in annual reports or other forms of disclosure produced by the company (e.g. US 10Ks) or disclosure made available by, for example, the Council on Economic Priorities or through the Toxic Release Inventory (TRI). Research interest in the relationships that stand-alone reports (including 'sustainability' reports) might hold with social and economic performance is still relatively scarce, but, a priori, it seems likely that evidence drawn from non-stand-alone sources will have potential import for our intention to speculate about stand-alone reports. There is no direct evidence of which I am aware, but there is circumstantial evidence of a relationship between the production of stand alone reports and financial performance: work undertaken for this paper seems to suggest that membership of the FTSE4Good is more likely to be associated with production of a stand-alone report *and* better than average financial performance, (this has yet to be formally tested); the WBCSD claims, in a far from modest or cautious sense, that 'Sustainability pays off' (Oberndorfer, 2004) and the Dow Jones Sustainability Index list top performing companies that are, you might infer from the title, 'sustainable'.

⁴⁶ For fuller reviews see, for example, Pava and Krausz (1996); Edwards (1998); Richardson et al., (1999); Orlitsky et al., (2003); and Murray et al. (2006).

Figure 4
Social, environmental, economic performance and disclosure



consider any conclusions to be conclusions about what is disclosed (i.e. performance) or conclusions about the act of disclosure itself. Such added confusions arise because it is probably the case that we should not treat (say) disclosure of a company's emissions of a particular range of chemicals (as per the Toxic Release Inventory, for example) as an identical event to the disclosure of a discursive section in the annual report explaining an environmental policy and environmental management system, (as, for example, measured by content analysis or a disclosure index).⁴⁷

Finally, while it is a truism that correlation does not, in itself, tell us anything about causality, the studies themselves are typically testing causal hypotheses – hypotheses which can, in principle, go in either direction, be reflexive and/or be codetermined by some other (typically unspecified) variable. That means for each relationship and each pair of proxies for those variables in the relationship, there is a potential range of different functional relationships being sought. If one collates all of these potential differences within the research designs, one is faced with a situation in which there are few true replications of method – even in this literature.

Figure 4 provides a heuristic representation of these three relationships. Each of the three subsections below examines one of these relationships⁴⁸ and seeks to tease out what evidence we can draw from the literature, what that evidence may have to say about the development of sustainability reporting and what, if anything, we may learn about information inductance from the discussion.

4.1. Social and environmental disclosure and performance

Before addressing the evidence concerning the relationship between social disclosure and social performance, attention should be drawn to the very notion that there is doubt about the relationship between the two in the first place. That is, as financial disclosure is a (perhaps *the*) primary source of information about the financial performance of an organisation, social disclosure might be thought to be a primary source of information about social performance. This is not the case.⁴⁹ One will not gain any reliable picture of social/environmental performance from the vast majority of company disclosures.

Examination of the social performance – social disclosure relationship tends to be primarily moti-

⁴⁷ It is a common concern throughout (mostly the positivistic branch of) the accounting literature that we, as a community, are reluctant to undertake and publish replication research which could possibly help to clarify this matter.

⁴⁸ It is worth noting that Al-Tuwajri et al. (2004) do advance the literature by seeking to explore the interaction between all three relationships simultaneously. Issues of appropriate proxies still apply but their results will be introduced as we develop our argument here.

⁴⁹ This apparent assertion is widely supported – see, for example, Hammond and Miles (2004). In the first place there would be little value in attempts to assess social performance by means other than disclosure if social disclosure itself was a reasonable proxy for performance. Second, for the statement to be untrue all organisations which produce virtually no social or environmental information would have to have virtually no social or environmental performance. This is clearly nonsense – unless that is we make the whole thing a tautology in which social and environmental performance is that which is reflected in social and environmental disclosure.

vated by a concern to see if such social disclosure as exists can offer any signal about social performance where social performance is proxied by other available data sets.⁵⁰ The most popular of these datasets are: reputational measures (see, for example, Bowman and Haire, 1976; Fry and Hock, 1976; Abbott and Monsen, 1979; Preston, 1978; Hughes et al., 2000); the Council on Economic Priorities (CEP) pollution indices, (see, for example, Ingram and Frazier, 1980; Wiseman, 1982; Rockness, 1985; Freedman and Wasley, 1990) and TRI (Toxic Release Inventory) data (see, for example, Patten, 2002a). Such studies have been broadly inconclusive although Hughes et al. (2000) found that poor environmental performers are more likely to produce extensive disclosure (a conclusion also suggested by Wiseman, 1982, and Rockness, 1985) while Patten (2002b) suggests that there may be a slight positive relationship between disclosure and environmental performance. A more systematic examination of the nature of the information contained in the datasets and an examination of the results obtained for each of the datasets may yet yield systematic results.

It would seem that, on the available evidence at least, we are unable to derive any generalisable inference about the value of social disclosure as a signal of social performance.⁵¹ Equally (and of more relevance here), it is also the case that, from this evidence, we can infer little or nothing about any information inductance effect that social disclosure might have.⁵²

It is probably not just issues of research design

that are obscuring any simple explanation of social disclosure. Recent research – especially field work – is demonstrating that the corporate motivations to disclose are complex (Deegan, 2002; Buhr, 2002; and see Gray, 2005, for a review) and, so far at least, resisting efforts to generalise. There are suggestions in the literature that better social/environmental performers are more likely to disclose, (see, for example, Al-Tuwaijri et al., 2004) but it is not yet clear whether being a better performer encourages disclosure. Patten (2002b) does offer one important insight, though – he concludes that the making public through government channels of data about environmental performance leads directly to changes in reporting practice and to an increase in the quality and reliability of that data.⁵³

Thus, although the research is reasonably extensive, we are forced to conclude that little is really known as to whether or not good corporate behaviour prompts self-disclosure and there is nothing in the literature to help us state categorically that voluntary disclosure reliably signals or influences social and environmental performance. It does seem likely however, that *enforced* substantive disclosure is highly likely to change behaviour. There is certainly nothing here to counter the information inductance hypothesis.

4.2. Social and environmental disclosure and financial performance

It is not entirely obvious that there should be some financial implications of social and/or environmental disclosure. The reasons (a) why such disclosure might have impacts on financial market numbers and (b) why social disclosure might be reflected in accounting numbers are likely to be slightly different.

Financial performance as measured by market variables may well respond to social disclosure for a number of different reasons. First, such disclosure might be responded to in a positive manner by socially responsible investors – or investors operating an aspect of ‘ethical investment’ in their dealings, (Belkaoui, 1976).⁵⁴ Second, conventional market participants might perceive a value-relevance in a disclosure of (say) environmental liabilities or the management of a societal risk. Third, through social disclosure a management may signal their awareness of and competence in dealing with social and environmental matters that have reputational, risk and/or financial consequences for the company. In each of these cases, market participants would be revising their perceptions of the management and of the company and its corresponding economic value, (see, for example, Simmons and Neu, 1996; Milne and Patten, 2002).

Financial performance as measured in accounting numbers could be anticipated to reflect past

⁵⁰ It is worth noting that if corporate self-disclosure of social and environmental issues was reliable then tests of correlation with other measures of social performance might be seen as an analogue of the accounting versus market valuation studies more familiar in the accounting and finance literature.

⁵¹ These studies are all North American and influenced, at least in part, by the availability of data sets. The data sets that are available are, I would suspect, only available because there is some commercial or legislative will behind their creation and, thus, they refer to areas on which corporations might be expected to be reasonably sensitive. However, whether we can necessarily assume that disclosure is a direct response to such sensitivity is far less clear.

⁵² Even if we can expect behaviour in relation to an activity which is manifested in data to change as result of the entity being required to report that data, there is no reason to expect behaviour to be changed when the entity is able to exercise complete choice over whether or not it reports that data. Broadly speaking, one could assert that organisations voluntarily report that which they wish to report – i.e., that upon which their behaviour has already generated ‘good’ data. The evidence we need on information inductance would be, for example, the environmental performance of Danish companies following the introduction of the Danish Environmental Protection Act 1996 which required compulsory ‘green accounts’. (see, Vedso, 1996; Bebbington, 1999).

⁵³ This is a finding well worth replication and extension.

⁵⁴ For example, a firm might disclose a newly adopted policy of ‘fair trade’ and this might attract the attentions of a subset of ethically-minded investors.

management decisions and actions in, for example, reducing liabilities, increasing win-win gains through environmental management or (say) increasing revenues through consumer niche marketing on social and/or environmental grounds. Such changes would have had – or will have – actual cash consequences to the firm.

So, on the basis of this literature the presupposition will be that, with the exception of the ‘ethical investor’, an interest in social and environmental disclosure is unlikely to be driven by concerns over (say) accountability or corporate social and environmental impacts. The general assumption must be that the market generally sees social and environmental matters as one of the manifestations through which economic success and well-being might eventually play. Except in the case of the ‘ethical investor’, ethics and virtue have little or nothing to do with it.

The research literature sees these as a potentially reflexive relationships in that (a) trying to understand why certain firms might voluntarily produce such disclosure, one hypothesis is that the wealthier organisations can afford to do it; and (b) in trying to understand if social and environmental disclosure has value relevance, one hypothesises that a firm with social and environmental disclosure may exhibit better economic performance.

The full extent, impact and direction of the relationship is far from clear (see, for example, Pava and Krausz, 1996; Richardson et al., 1999; Wagner, 2001; Margolis and Walsh, 2003; Murray et al., 2006).⁵⁵ Part of the reason for this inconclusiveness undoubtedly derives from the (as far as I have been able to establish) remarkably few studies of market performance and social disclosure, (see also Richardson et al., 1999; Murray et al., 2006). Notably, Belkaoui (1976), Anderson and Frankle (1980), and Ingram (1978) all produce conflicting arguments and results based on US data. One obvious (further) explanation for this is that any value-relevance of a social or environmental disclosure is likely to be swamped, in all but exceptional circumstances, by other events and disclosures. Recognising this, Murray et al. (2006) having replicated the US studies to no clear effect, pursued the notion that social disclosure to the (non-ethical investing) market is a form of signalling – signalling of competent management who are identifying and controlling financial and reputational risks. Testing such a hypothesis on social disclosure data is difficult but the longitudinal tests undertaken by Murray et al. provide convincing support for an association between financial

performance and *predisposition* to disclose.

Studies of accounting performance and social disclosure have tended to form part of a larger literature examining corporate characteristics as the ‘determinants’ of social disclosure, (see, for example, Gray et al., 2001 for a summary). In general, studies find social disclosure related to company size and industry classification but the relationship with profit(ability) is more elusive, (see, for example, Belkaoui and Karpik, 1989; Hackston and Milne, 1996; Freedman and Jaggi, 1988; Roberts, 1992). If there appears to be less inconclusiveness obtained with UK data (Gray et al., 2001) it probably derives from the longitudinal nature of that study which suggests an instability in the relationship between the two. In essence, it seems unlikely that disclosure and accounting profit are entirely disassociated but the nature of the functional relationship between the two (if such exists) continues to elude us.

More progress and clarity seem to have resulted from survey and field work. Benjamin and Stanga (1977); Chenall and Juchau (1977); Firth (1978, 1979, 1984) and, more recently, Epstein and Freedman (1994) demonstrated that investors’ interest in social and environmental disclosure was significant and certainly greater than is typically assumed in the investor literature (Skogsvik, 1998; Rivoli, 1995). It is clear that ‘ethical investors’ (see Kreander, 2001; Kreander et al, 2002, 2005) actively demand social and environmental disclosure – albeit of a higher standard than is usually available (Hammond and Miles, 2004). There is also the hypothesis that improved disclosure might ‘educate’ investors to the social and environmental implications of their investment and, thus, better disclosure might increase the demand for that disclosure and, consequently, increase its impact on investor decisions, (Murray et al., 2006). But, taken in the round, the evidence seems to be that currently, while investors can recognise and respond to the economic implications of social disclosure (Belkaoui, 1980; Chan and Milne, 1999; Milne and Chan, 1999), the value-relevance of disclosure is often perceived as marginal. More significantly though, it is looking increasingly as though social and environmental disclosure is being undertaken by organisations with a ‘business case’ for disclosure firmly in mind (Neu, Warsame and Pedwell, 1998; Husted, 2000; Orlitzky and Benjamin, 2001; Milne and Patten, 2002; Spence and Gray, forthcoming). Consequently, whether or not researchers are able to identify the effect which disclosure has on economic performance, it is increasingly perceived by management as being part of the economic management of the organisation.

Consequently, it may be possible to tentatively conclude that whilst non-value-relevant social and environmental disclosures will have an impact on

⁵⁵ See also Jaggi and Freedman (1992); Lorraine et al. (2004) for examples of papers in which financial performance reactions investigated may have been the result of the act of disclosure or the actual amounts disclosed. This distinction is not investigated further here.

'ethical' investors, until the volume of such investments rises further, this is unlikely to have much financial impact in the market. Those disclosures which are made by managers, being largely voluntary, look increasingly as though they are signals to investors about the competence with which the organisation is managing reputation and social/environmental risk and whose impact on market performance is bundled up with management's whole suite of market interactions.

The implications for information inductance? These are almost non-existent except that if, as in say Germany and Austria, all organisations were pressurised via, *inter alia*, disclosure to adopt environmental management systems which encouraged exploitation of all environmental win-win situations (see, for example, Walley and Whitehead, 1994; Krut and Gleckman, 1998) this might lead to discernible changes in economic performance which would then reflect in accounting numbers.

Once again, however, this somewhat defeats the object by resorting to the tautology that the only social and environmental activities that one should adopt and disclose are those with value-relevance. In which case the interest is not in social and environmental issues at all but economic management of which social and environmental behaviour, risk and reputation are a part.

4.3. Social/environmental and financial performance

There seems to be little question that demonstrating that economic success and social and environmental responsibility are co-determined is akin to the search for the holy grail. Such a demonstration is potentially dynamite. If it can be shown that by getting rich one does good and by doing good one gets rich, 'having one's cake and eating it' doesn't come close. It suggests little more than modern international financial capitalism, at its best, is the ultimate best of all possible worlds, offering as it does the promise of a limitless range of win-win opportunities. However, implausible this might seem, there is a growing language of such zealous win-win fervour that appears to suggest that the hope and faith in international capitalism to deliver the holy grail is enough – if we hope for such a win-win situation then that is precisely what we will experience.⁵⁶ Indeed, the natural conclusion of such reasoning is that there is an increasing likelihood that only stupid companies would not adopt the very highest standards of social responsibility and, in all probability, it is poor people who are causing all of the planet's suffering and injustice (see later).

Pursuit of an answer to this holy grail has led to a considerable volume of research (see, for example, Herremans et al., 1993; Toms, 2002; Tyteca

et al., 2002) and, more usefully perhaps, a range of reviews of that research. One particularly useful review is that by Wagner (2001) – but see also Griffin and Mahon, (1997); Edwards, (1998), Richardson et al., (1999) and Margolis and Walsh, (2003). Two extracts from Wagner's conclusions capture the inconclusiveness – or confusion – that has beset this literature:

'Although there is ample anecdotal evidence on the considerable economic benefits of individual firms from environmental performance improvements ... systematic evidence for larger samples of firms across several industries is much more inconclusive. ... The variability of the results based on different methodological approaches raises the question whether the variability encountered ... represents more an artefact of the methodology or the research design or more due to the intrinsically wide variance in the relationship between environmental and economic performance.' (2001: 44 and 46)

Wagner concludes that some means to overcome this diversity of method may hold out the answer. This is precisely what Orlitzky et al. (2003) undertake. In probably the most thorough study to date, Orlitzky et al. (2003) undertake a meta-analysis of 52 US studies over 30 years. They find that social performance and financial performance are significantly positively related. The conclusion as presented is persuasive for a number of reasons. Not only is the meta-analysis carefully undertaken and a major improvement on previous attempts at literature reviews of the field, but the authors offer plausible explanations that are in line with research findings elsewhere: namely, that the relationship between financial and social performance is reflexive (not in a single direction as is usually implicitly assumed) and that there are intervening variables, the most likely candidates for which are management quality and corporate reputation.⁵⁷

⁵⁶ One is minded of Santa Claus, the tooth fairy and wishing wells. This subtle use of language was considered in the preceding section of the paper and I would direct your attention to Milne et al. (forthcoming); Tregidga and Milne (forthcoming) for more on this subject. To illustrate the point, consider the following: 'All CSR activities are linked to improving a company's bottom line.' MHCi MONTHLY FEATURE (pdf/e-journal) April 2004 (p. 2) and 'Good environmental governance helps to deliver better financial performance' (White and Kiernan, 2004:1) and 'Sustainability pays off' and 'Companies favouring the concept of sustainability outperform the broad market' (Oberndorfer, 2004: cover and p.3).

⁵⁷ Reputation for, *inter alia*, competence, innovation and the ability to identify and deal with potential areas of risk. In addition, as Porter and van der Linde (1995) sought to suggest, not only are there innovation and financial opportunities in the new environmental concerns (in their case regulations) but that innovation here signals quality management.

What is further convincing about Orlitzky et al.'s conclusions emerges from their discussion of the implications of their research. Towards the end of the paper, the authors argue, apparently without irony, that their results demonstrate that there is no need for regulation of corporations in the field of social responsibility as the results demonstrate that the market already handles this:

'If the statistical relationship between CSP and CFP were negative, bottom-line considerations might constitute barriers to outcomes desired by the public, which in turn would make government intervention, which serves the "public interest", a necessity. Yet, with CSP, the case for regulation and social control by governments (acting on behalf of "society" or "the public") is relatively weak because organizations and their shareholders tend to benefit from managers' prudent analysis, evaluation and balancing of multiple constituents' preferences.' (Orlitzky et al., 2003: 424)

This statement could only be offered as a self-evident truth if there were no major sources of conflicts between societies, governments and corporations. This is clearly not true in the broader sense (see, for example Bakan, 2004; Beder, 1997; Estes, 1996; Greer and Bruno, 1996; Hertz, 2001; Kelly, 2001; Klein, 2001; Kortton, 1995; 1999; Kovel, 2002; Schwartz and Gibb, 1999; Welford, 1997) and can only be true if we only recognise a limited range of social and environmental responsibilities – indeed, if we only recognise those for which an economic return (a win-win) obtains. Consequently, we run into a *tautology that socially and environmentally responsible acts are those which benefit stakeholders and the company simultaneously*. Such acts must, by definition, be correlated with economic performance. The only surprise is then that it has taken research this long to spot what is increasingly recognised as a truism. Orlitzky et al., in rather heroically over-reaching themselves on their conclusion, expose this important probability. Thus, we begin to see that what the corporate world increasingly might mean by 'social responsibility' relates to matters that are, when not considered in terms of the economic costs and benefits of corporate life, likely to be trivial at best.

Levy and Egan (2003) raise an exceptionally persuasive issue in this context. The importance and the persuasiveness of the win-win situation in, what they call, 'eco-modernist rhetoric' is that it is being used to establish a new consensus about society, the environment and corporations. After all, as they argue, the win-win scenarios are not designed to ameliorate the dire ecological situation or reverse trends in social justice, although this may be how they appear – they are there to justify

and bolster corporate and market primacy and autonomy.

4.4. Conclusions from social disclosure and social and economic performance?

In a climate where both the potential risks and potential benefits arising from the actual and/or perceived social and environmental effects of corporate action are increasing, it naturally follows that there are more actions that have a social and/or environmental dimension and which, in turn, also have actual or potential economic impact on the firm. Such impact may be direct but is much more likely to be indirect acting through reputation, perceived management competence and the management and avoidance of risk. Management of that impact is an essential part of the running of any good organisation and, to the extent that such actions can be labelled as 'socially responsible' or 'environmentally considerate' then one may assume that this management will be in the interests of the organisation and its shareholders. In all probability, this is what Orlitzky et al.'s study identifies and clarifies. Social disclosure can act as a signal of this awareness by management but, and this is where there is still doubt, do shareholders always take social disclosure as a positive signal of management competence? It seems unlikely that shareholders would do this – and it would probably be unwise of them to accept such signals – especially as some of the signals would be of the most trivial kind. So, as Al-Tuwaijri et al. (2004) argue, we need to consider these three relationships simultaneously and, as Orlitzky et al. (2003) suggest, consider them through the mitigating lens of reputation and risk.

But these are conclusions which see the world entirely through the eyes of management – or eyes which see no conflict between society and corporations. Accountability and sustainability are, however, societal concepts.

We learn little about the impacts and processes of accountability from these studies because there are no definitions of accountability of which I am aware that permit the accountable organisation to disclose only what they want and as and when they want to. We do learn, as we would expect, that imposed and monitored accountability increases and improves disclosure behaviour (Patten, 2002b). We can continue to infer that imposed accountability of things which the organisation might choose not to disclose voluntarily will also lead to changes in actual management behaviour. Most significantly of all though, we learn about sustainability only if sustainability refers to social and environmental actions which are in the economic interest of the organisation. This is, as we have already seen above, an exceptionally implausible assumption.

5. Syntheses, interpretations and conclusions

The trite and obvious answer to the question: 'Does sustainability reporting improve corporate behaviour?' is 'no-one can know – but it is probable'. However, in seeking to answer the question a number of much more important issues have emerged. The first, and easily the most important of these, is that the implications of the global data now being collated and presented are of such seriousness that simple attempts to ignore or dismiss it are irresponsible at best. While it is *not* inconceivable that all this careful and cautious data collection is, to some degree at least, misguided, mistaken and basically incorrect, it is an act of the sheerest folly and hubris to assume it is all meaningless and has no message for us. The message is that 'unless you can come up with better data, you better address the probability that sustainability is a diminishingly small possibility for our current ways of existence'.

The case for our current states of un-sustainability is substantial enough to counsel us against the simple claims of its achievement that we see in the business and political press. More substantially for our present purposes, there is a major disconnect between the implication of the global data we have reviewed and the partial and localised data chosen to constitute the social, environmental and sustainability reporting. Until organisational reporting addresses sustainability directly there will be no sustainability reporting and civil society will have to continue to rely upon bland and partial assurances from businesses that sustainability is, indeed, safe in their hands.

To put it more bluntly: if that happiest of conclusions is true and our current systems of economic organisation are indeed driving us unerringly down a path of sustainable development, then (a) our companies must have data to support such a life-affirming conclusion and (b) they should share it with the rest of us. If, on the other hand, the global data speaks truthfully and, extrapolating, the mass of corporate activity is actually highly un-sustainable, then company disclosure needs to reflect this so that we can discount

the empty rhetoric and turn pressure on to governments to undertake the radical reconstruction of economic organisation that will be an essential precursor to a redirection towards sustainability. (see especially, Weizsäcker, Lovins and Lovins, 1997; Porritt, 2005). Companies (and politicians) cannot have it both ways.

Once there is clarity on this matter we can then more sensibly address the way in which business language has been switching our (and, more understandably, its) concern away from how a business might operate in harmony with a sustainable environment to the sustaining of the business assuming that the planet and society are sound. If we should better understand any business use of the word 'sustainable' as 'business-as-usual-for-the-immediately-foreseeable-future' then much of our confusion and conflict can be overcome.

Equally, once we have clarity on the matter of organisational sustainability, we may be able to pronounce more confidently on whether or not the conclusions we have been able to draw from the social disclosure and social/economic performance literature have any bearing whatsoever on our more pressing concerns. The evidence as I read it suggests there is nothing much to be learnt from this literature currently.

A debate about the real (as opposed to hoped-for) exigencies of sustainability will clarify so much and then, perhaps we can begin to understand what form of capitalism (if any) we can embrace that is commensurate with sustainability. (Porritt, 2005). If (as ICAEW, 2004: 9 suggests), 'the long-term pursuit of shareholder value is now seen as being more closely linked to the preservation and enhancement of all types of capital...', we must carefully pursue evidence to support such findings and discover how we might make it so. The evidence as I read it – and as I have been reading it for 30 years – is that the only way in which we can continue to pursue shareholder value is if we continue to destroy the planet or if we redefine shareholder value to include something other than the making of even more money for people who already have too much.⁵⁸ A shareholder value that embraced compassion, respect, trust, life, air, water, safety, nature, beauty sunshine etc. might be quite a nice idea?

It might be the only one that makes any long-term sense at all.

⁵⁸ This is a mis-quote from J. S. Mill – although the sentiments are faithfully represented here.

Appendix

Areas for future research arising from the paper

- Strict and controlled replication of the better of the positivistic studies reviewed in the third substantive part of the paper might allow us to clarify which variables actually were significant.
- Examining whether the making of information public (Patten, 2002b) does, indeed, increase the incidence and quality of voluntary reporting. Denmark would be a good location for such a development.
- Test the hypothesis that companies which are listed in the FTSE4Good index (and, indeed, in other SRI-related indices) are more likely to disclose social and environmental data and are more likely to exhibit a higher quality in that disclosure. If the hypothesis holds, explore (through time-series and/or field work) if the relationships are single-direction causal or reflexive.
- Investigate the changing use of language using the KPMG survey as a starting point. Consider framing such a study with the psychology literature to explore whether those using this altered language understand it or whether it is a problem of avoidance of cognitive dissonance.
- Explore the different ways which stand alone reports can be systematically digested for comparative and statistical work (i.e. as a companion to the content analysis on, for example, the CSEAR website). Consider how different methods of codifying would lead to different types of research, different perceptions and different conclusions about stand-alone reporting.
- Explore the limits of corporate discretion – most notably for the listed company. It is obvious that there are acts of ‘social responsibility’ which the market will approve of. It seems that there are forms of ‘social responsibility’, forbearance from which the market will ignore. There are clearly acts of social responsibility which will be penalised by the market. How big is the gap between these extremes and how do managers negotiate the gap?
- Replicate and extend Gray and Bebbington (2000) to try and understand why we have ended up in a situation where the most persuasive and detailed evidence concerning the state of the planet is systematically subverted and ignored.
- Examine whether State regulation of sustainability performance and/or sustainability disclosure is a possibility. Explore whether it is possible to systematically research the impediments to the implementation of sustainability-led regulation and the extent to which corporate action, lobbying and threats are actually a barrier and/or are perceived to be a barrier to its implementation. What would it take for corporations to allow the State to govern so that companies could concentrate on the economic.

References

- Abbott W. F. and Monsen, R. J. (1979). ‘On the measurement of corporate social responsibility: Self-reported disclosures as a method of measuring corporate social involvement’. *Academy of Management Journal*, 22(3):501–515.
- ACCA/Corporate Register (2004). *Towards transparency: progress on global sustainability reporting 2004*. London: ACCA.
- Accounting Standards Steering Committee (1975) *The Corporate Report*. London: ICAEW.
- Adams C. (2002). ‘Internal organisational factors influencing corporate social and ethical reporting’. *Accounting, Auditing and Accountability Journal*, 15(2):223–250.
- Al-Tuwaijri A. A., Christensen, T. E. and Hughes III, K. E. (2004). ‘The relations among environmental disclosure, environmental performance and economic performance: a simultaneous equations approach’. *Accounting Organizations and Society*, 29(5/6), July/August:447–472.
- Anderson, J. and Frankle, A. (1980). ‘Voluntary social reporting: an iso-beta portfolio analysis’. *The Accounting Review*, July:467–479.
- Anderson, V. (1991). *Alternative Economic Indicators*. London: Routledge.
- Atkinson, G., Dietz, S and Neumayer, E. ‘Introduction’ in Atkinson G., Dietz, S. and Neumayer, E. *A Handbook of Sustainable Development* (forthcoming). Cheltenham: Edward Elgar
- Bailey, D., Harte, G. and Sugden, R. (1994a). *Making transnationals accountable: A significant step for Britain*. London: Routledge.
- Bailey, D., Harte, G. and Sugden, R. (1994b). *Transnationals and governments: Recent policies in Japan, France, Germany, the United States and Britain*. London: Routledge.
- Bailey, D., Harte, G. and Sugden, R. (2000). ‘Corporate disclosure and the deregulation of international investment’. *Accounting, Auditing and Accountability Journal*, 13(2):197–218.
- Bailey, R. (2002). (ed) *Global Warming and Other Eco-Myths: How the environmental movement uses false science to scare us to death*. Roseville, California: Prima Publishing.
- Bakan, J. (2004). *The Corporation: the pathological pursuit of profit and power*. London: Constable and Robinson.
- Ball, A.; Owen, D. L. and Gray, R. H. (2000). ‘External transparency or internal capture? The role of third party statements in adding value to corporate environmental reports’. *Business Strategy and the Environment*, 9(1) Jan/Feb:1–23.
- Baxter, T., Bebbington, J. and Cutteridge, D. (2004). ‘Sustainability assessment model: modelling economic, resource, environmental and social flows of a project’ in

- A. Henriques and J. Richardson (eds). *The Triple Bottom Line: does it all add up?* London: Earthscan:113–120.
- Bebbington, K. J. (1999). 'Compulsory environmental reporting in Denmark: an evaluation'. *Social and Environmental Accounting Journal*, 19(2):2–4.
- Bebbington, K. J. and Gray, R.H. (1995). 'Incentives and disincentives for the adoption of sustainable development by transnational corporations'. *International Accounting and Reporting Issues: 1995 Review*. Geneva: United Nations (1996).
- Bebbington, K. J. and Larrinaga, C. (2005). 'Environmental reporting in the UK: an analysis of emerging trends'. Paper presented at the CSEAR International Congress 2005, St Andrews.
- Beckerman, W. (1974). *In defence of economic growth*. London: Cape.
- Beckerman, W. (1995). *Small is stupid: Blowing the whistle on the greens*. London: Duckworth.
- Beder, S. (1997). *Global Spin: The corporate assault on environmentalism*. London: Green Books.
- Belkaoui, A. (1976). 'The impact of the disclosure of the environmental effects of organisational behaviour on the market'. *Financial Management* (Winter):26–31.
- Belkaoui, A. (1980). 'The impact of socio-economic accounting statements on the investment decision: an empirical study'. *Accounting Organizations and Society*, 5(3):263–283.
- Belkaoui, A. and Karpik, P. G. (1989). 'Determinants of the corporate decision to disclose social information'. *Accounting, Auditing and Accountability Journal*, 2(1):36–51.
- Benjamin, J. J. and Stanga, K. G. (1977). 'Difference in disclosure needs of major users of financial statements'. *Accounting and Business Research*, 27 (Summer):187–192.
- Bowman, E. H. and Haire, M. (1976) 'Social impact disclosure and corporate annual reports'. *Accounting Organizations and Society*, 1(1):11–21.
- Brown, L.R. and Flavin, C. (1999). *State of the World 1999: Special Millennium Edition*. London: Earthscan.
- Buhr, N. (1998). 'Environmental performance, legislation and annual report disclosure: the case of acid rain and Falconbridge'. *Accounting Auditing and Accountability Journal*, 11(2):163–190.
- Buhr, N. (2002). 'A structuration view on the initiation of environmental reports'. *Critical Perspectives on Accounting*, 13(1) February:17–38.
- Carroll, A. B. and Buchholtz, A. K. (2006). *Business and Society: Ethics and stakeholder management*. 6E International Student edition. Mason, Ohio: Thomson.
- Chan, C.C.C. and Milne, M. J. (1999). 'Investor reactions to corporate environmental saints and sinners: an experimental analysis'. *Accounting and Business Research*, 29(4):265–279.
- Chenall, R. H. and Juchau, R. (1977). 'Investor information needs: an Australian study'. *Accounting and Business Research*, 26 (Spring):111–119.
- Christian Aid (2005) *The shirt off their backs: How tax policies fleece the poor*. September <http://www.christianaid.org.uk/indepth/509tax/index.htm>
- Clay, J. (2005). *Exploring the links between international business and poverty reduction: A case study of Unilever in Indonesia*. Oxford: Oxfam: Novib/Unilever.
- Cobb, C., Hallstead, T. and Rowe, J. (1995). *The genuine progress indicator: Summary of data and method*. San Francisco: Redefining progress.
- Daly, H. E. and Cobb, J. B. Jr. 1990). *For the Common Good: Redirecting the economy towards the community, the environment and a sustainable future*. London: Greenprint.
- Deegan, C. (2002). 'The legitimising effect of social and environmental disclosures: a theoretical foundation'. *Accounting Auditing and Accountability Journal*, 15(3):282–311.
- De Villiers, C. J. (1999). 'The decision by management to disclose environmental information: a research note based on interviews'. *Meditari Accountancy Research*, (7):33–48.
- Edwards, D. (1998). *The Link Between Company Environmental And Financial Performance*. London: Earthscan.
- Elad, C. (2001). 'Auditing and governance in the forestry industry: between protest and professionalism'. *Critical Perspectives on Accounting*, 12, 5 (October):647–671.
- Elkington, J. (1997). *Cannibals with forks: the triple bottom line of 21st century business*. Oxford: Capstone Publishing.
- Epstein, M. J. and Freedman, M. (1994). 'Social disclosure and the individual investor'. *Accounting, Auditing and Accountability Journal*, 7(4): 94–109.
- Erusalimsky, A., Gray, R. and Spence, C. (forthcoming). *Social and Environmental Accounting Journal*.
- Estes, R. (1996). *Tyranny Of The Bottom Line: Why Corporations Make Good People Do Bad Things*. San Francisco: Berrett-Koehler.
- European Environment Agency (2005). *European Environment Outlook Report No.4*. Copenhagen: European Environment Agency.
- Firth, M. (1979). 'The impact of size, stockmarket listing and auditors on voluntary disclosure in corporate annual reports'. *Accounting and Business Research*, (Autumn):273–280.
- Firth, M. (1984). 'The extent of voluntary disclosure in corporate annual reports and its association with security risk measures'. *Applied Economics*, 16:69–277.
- Fitzroy, F. R. and Smith, I. (2004). 'Welfare, growth and environment: a sceptical review of "the skeptical environmentalist"' by B. Lomborg. *Scottish Journal of Political Economy*, 51(5):707–717.
- Francis, P. (2005). 'Changes in UK resource use between 1970 and 2003' in *The Environmentalist*, 28 (April):18–21.
- Freedman, M. and Jaggi, B. (1988). 'An analysis of the association between pollution disclosure and economic performance'. *Accounting, Auditing and Accountability Journal*, 1(2):43–58.
- Freedman, M. and Walsey, C. (1990). 'The association between environmental performance and environmental disclosure in annual reports and 10Ks'. *Advances in Public Interest Accounting*, 3:183–193.
- Fry, F. and Mock, R. J. (1976). 'Who claims corporate social responsibility? The biggest and the worst'. *Business and Society Review*, 18:62–65.
- Gray, R. H. (1992). 'Accounting and environmentalism: an exploration of the challenge of gently accounting for accountability, transparency and sustainability'. *Accounting Organizations and Society* 17, 5(July):399–426.
- Gray, R. H. (2000). 'Current developments and trends in social and environmental auditing, reporting and attestation: a review and comment'. *International Journal of Auditing*, (November):247–268.
- Gray, R. H. (2002). 'The Cloak of Sustainability: a modern fable'. *Social and Environmental Accounting Journal*, 22(2):10.
- Gray, R. H. (2005). 'Taking a long view on what we now know about social and environmental accountability and reporting'. (Electronic Journal) *Radical Organization Theory*, 9, 1(December):1–31

- <http://www.mngt.waikato.ac.nz/ejrot>
- Gray, R. H. and Bebbington, K. J. (2000) 'Environmental accounting, managerialism and sustainability: is the planet safe in the hands of business and accounting?' *Advances in Environmental Accounting and Management*, 1:1-44.
- Gray, R. H. and Bebbington, K. J. (2001). *Accounting for the Environment*. 2nd ed. London: Sage.
- Gray, R. H. and Bebbington, K. J. (forthcoming). 'Corporate sustainability: accountability or impossible dream?' in Atkinson G., Dietz, S. and Neumayer, E. A. *Handbook of Sustainable Development*. Cheltenham: Edward Elgar.
- Gray, R. H., Bebbington, J. and Collison, C. (forthcoming). 'NGOs, civil society and accountability: making the people accountable to capital'. *Accounting, Auditing and Accountability Journal*.
- Gray, R. H., Bebbington, K. J., Collison D. J., Kouhy, R., Lyon B., Reid C., Russell A. and Stevenson. L. (1998). *The valuation of assets and liabilities: Environmental law and the impact of the environmental agenda for business*. Edinburgh: ICAS.
- Gray, R. H., Bebbington, K. J., Walters, D. and Thomson, I. (1995a). 'The greening of enterprise: an exploration of the (non) role of environmental accounting and environmental accountants in organisational change'. *Critical Perspectives on Accounting*, 6(3):211-239.
- Gray R. H., Kouhy R. and Lavers S. (1995b). 'Corporate social and environmental reporting: A review of the literature and a longitudinal study of UK disclosure'. *Accounting, Auditing and Accountability Journal* 8(2): 47-77.
- Gray, R.H., Dey, C., Owen, D., Evans, R. and Zadek, S. (1997). 'Struggling with the praxis of social accounting: stakeholders, accountability, audits and procedures'. *Accounting, Auditing and Accountability Journal*, 10(3):325-364.
- Gray, R.H., Javad, M., Power, D.M. and Sinclair, C.D. (2001). 'Social and environmental disclosure and corporate characteristics: a research note and extension'. *Journal of Business Finance and Accounting*, 28, 3/4, (April/May):327-356.
- Gray, R. H. and Milne, M. (2002). 'Sustainability reporting: who's kidding whom?' *Chartered Accountants Journal of New Zealand*, 81(6) July:66-70.
- Gray, R. H. and Milne, M. (2004). 'Towards reporting on the triple bottom line: mirages, methods and myths'. Ch. 7 in A. Henriques and J.Richardson (eds). *The Triple Bottom Line: does it all add up?* London: Earthscan, pp.70-80
- Greer, J. and Bruno, K. (1996). *Greenwash: the reality behind corporate environmentalism*. Penang/New York: Third World Network/Apex Press.
- Griffin, J. G. and Mahon, J.F. (1997). 'The corporate social performance and corporate financial performance debate: twenty-five years of incomparable research'. *Business and Society*, (March) 36(1):5-31.
- Hackston, D. and Milne, M. (1996). 'Some determinants of social and environmental disclosures in New Zealand'. *Accounting Auditing and Accountability Journal*, 9(1):77-108.
- Hajer, M. A. (1997). *The politics of environmental discourse: Ecological modernisation and the policy process*. Oxford: Clarendon Press.
- Hamilton, C. (forthcoming). 'Measuring sustainable economic welfare' in Atkinson G., Dietz, S. and Neumayer, E. A *Handbook of Sustainable Development*. Cheltenham: Edward Elgar.
- Hammond, K. and Miles, S. (2004). 'Assessing quality assessment of corporate social reporting: UK perspectives'. *Accounting Forum*, 28, 1 (March):61-80.
- Hawken, P. (1993). *The ecology of commerce: a declaration of sustainability*. New York: Harper Business.
- Hawken, P., Lovins, A. B. and Lovins, L. H. (1999). *Natural Capitalism: The Next Industrial Revolution*. London: Earthscan.
- Herremans, J.R., Akathaporn, P. and McInness, M. (1993). 'An investigation of corporate social responsibility reputation and economic performance'. *Accounting Organizations and Society*, 18(7/8):587-604.
- Hertz, N. (2001). *The Silent Takeover: global capitalism and the death of democracy*. London: Heinemann.
- Howes, R. (2004). 'Environmental cost accounting: coming of age? Tracking organisation performance towards environmental sustainability' in A. Henriques and J. Richardson (eds). *The Triple Bottom Line: does it all add up?* London: Earthscan, pp.99-112.
- Hughes S. B., Anderson A. and Golden S. (2001). 'Corporate environmental disclosures: are they useful in determining environmental performance?' *Journal of Accounting and Public Policy*, 20:217-240.
- Husted, B. W. (2000). 'A contingency theory of corporate social performance'. *Business and Society*, 39: 24-38.
- Ingram, R.W. (1978). 'An investigation of the information content of (certain) social responsibility disclosure'. *Journal of Accounting Research*, 16(2):270-285.
- Ingram, R.W. and Frazier, K.B. (1980). 'Environmental performance and corporate disclosure'. *Journal of Accounting Research*, (Autumn): 614-622.
- Institute of Chartered Accountants in England and Wales (2004). *Sustainability: the role of accountants* (in the Information for Better Markets series). London: ICAEW.
- Jaggi, B. and Freedman, M. (1992). 'An examination of the impact of pollution performance on economic and market performance: pulp and paper firms'. *Journal of Business Finance and Accounting*, 19(5):697-713.
- Jevons, S. (1865). *The Coal Question*. London: Macmillan.
- Kelly, M (2001). *The Divine Right of Capital: Dethroning The Corporate Aristocracy*. San Francisco: Berrett-Koehler.
- Klein, N. (2001). *No Space, No Choice, No Jobs, No Logo*. London: Flamingo/Harper Collins.
- Kolk, A. (2003). 'Trends in sustainability reporting by the Fortune Global 250'. *Business Strategy and the Environment*, 12, 5 (September-October):279-291.
- Korten, D.C. (1995). *When Corporations Rule the World*. West Hatford/San Francisco: Kumarian/Berrett-Koehler.
- Korten, D. (1999). *The Post-Corporate World: Life after Capitalism*. San Francisco/West Hartford: Berrett-Koehler/Kumerian.
- Kövel, J. (2002). *The Enemy Of Nature: The end of capitalism or the end of the world?* London: Zed Books.
- KPMG (1999). *KPMG International Survey of Environmental Reporting 1999*. Amsterdam: KPMG/WIMM.
- KPMG (2002). *KPMG 4th International Survey of Corporate Sustainability Reporting*. Amsterdam: KPMG/WIMM.
- KPMG (2005). *KPMG International Survey of Corporate Responsibility 2005*. Amsterdam: KPMG International.
- Kreander, N. (2001). *An Analysis of European Ethical Funds*. Research paper No. 33. London: ACCA.
- Kreander, N., Gray, R.H., Power, D. M. and Sinclair, C.D. (2002). 'The financial performance of European ethical funds 1996-1998'. *Journal of Accounting and Finance*, (1):3-22
- Kreander, N., Gray, R. H., Power, D. M. and Sinclair, C.D. (2005). 'Evaluating the performance of ethical and non-

- ethical funds: a matched pair analysis'. *Journal of Business Finance and Accounting*, 32, 7/8 (September/October):1,465–1,493.
- Krut, R. and Gleckman, H. (1998). *ISO 14001: A Missed Opportunity for Sustainable Global Industrial Development*. London: Earthscan.
- Larrinaga-González, C., Carrasco-Fenech, C., Javier Caro-González, F., Correa-Ruiz, C., Maria Páez-Sandubete, C. (2001). 'The role of environmental accounting in organisational change: an exploration of Spanish companies'. *Accounting, Auditing and Accountability Journal*, 14(2):213–239.
- Larrinaga-Gonzalez, C. and Bebbington, J. (2001). 'Accounting change or institutional appropriation? A case study of the implementation of environmental accounting'. *Critical Perspectives on Accounting*, 12, 3 (June):269–292.
- Levy, D. L. and Egan, D. (2003). 'A neo-Gramscian approach to corporate political strategy: Conflict and accommodation in the climate change negotiations'. *Journal of Management Studies*, 49, 4 (June):803–829.
- Lober, D.J., Bynum, D., Cambell, E. and Jaques, M. (1997). 'The 100 plus corporate environmental report study: a survey of an evolving management tool'. *Business Strategy and the Environment*, 6, 2 (May):57–73.
- Lomborg, B. (2001). *The Skeptical Environmentalist: Measuring the real state of the world*. Cambridge: Cambridge University Press.
- Lorraine, N.H.J., Collison, D. J. and Power, D. M. (2004). 'An analysis of the stock market impact of environmental performance information'. *Accounting Forum*, 28, 1 (March):7–26.
- Lucas, K., Walker, G., Eames, M., Fay H. and Poustie M. (2004). *Environment and Social Justice: Rapid Research and Evidence Review*. London: Policy Studies Institute.
- Malthus, T. (1798). *An Essay on the Principle of Population*. London, printed for J. Johnson, in St. Paul's Churchyard, rendered into HTML format by Ed Stephan, 10 August 1997. <http://www.ac.wvu.edu/~stephan/malthus/malthus.0.html>
- Margoli, J. D. and Walsh, J.P. (2003). 'Misery loves companies: rethinking social initiatives by business'. *Administrative Science Quarterly*, 48:268–305.
- Marshall, R. S. and Brown, D. (2003). 'Corporate environmental reporting: what's in a metric?' *Business Strategy and the Environment*, 12, 2(March–April):87–106.
- Marshall, G and Lynas, M. (2003). 'Why we don't give a damn'. *New Statesman*, (December):18–20.
- Mathews, M. R. and Reynolds, M. A. (2001). 'Cultural relativity and accounting for sustainability: a research note'. *Accounting Forum*, 25, 1(March):79–88.
- Mayhew, N. (1997). 'Fading to grey: the use and abuse of corporate executives' representational power' in R. Welford (ed). *Hijacking Environmentalism: Corporate response to sustainable development*. London: Earthscan, pp 63–95.
- Meadows, D. H., Meadows, D. L., Randers, J. and Behrens, W.H. (1972). *The Limits to Growth*. London: Pan.
- Meadows, D. H., Meadows, D. L. and Randers, J. (1992). *Beyond the Limits*. Post Mills, VT: Chelsea Green Publishing.
- Meadows, D., Randers, J. and Meadows, D. (2004). *Limits to Growth: The 30 year update*. London: Earthscan.
- Miles S., Hammond, K. and Friedman, A. L. (2002). *Social and environmental reporting and ethical investment*. ACCA Research Report No.77. London: ACCA.
- Millennium Ecosystem Assessment (2005). *Living Beyond Our Means: Natural Assets and Human Well-Being: Statement from the board*. <http://www.millenniumassessment.org/en/Products.BoardStatement>.
- Milne, M. J. and Chan, C. C. (1999). 'Narrative corporate social disclosures: how much difference do they make to investment decision-making?' *British Accounting Review*, 31,4(December):439–457.
- Milne, M. J., Kearins, K. N. and Walton, S. (forthcoming). 'Creating adventures in wonderland? The journey metaphor and environmental sustainability'. *Organization*.
- Milne, M. J. and Patten, D. M. (2002). 'Securing organizational legitimacy: an experimental decision case examining the impact of environmental disclosures'. *Accounting, Auditing and Accountability Journal*, 15(3):372–405.
- Milne, M. J., Tegigda, H. M. and Walton, S. (2003). 'The triple bottom line: benchmarking New Zealand's early reporters'. *University of Auckland Business Review*, 5, 2(September):36–50.
- Mintzberg, H. (1983). 'The case for corporate social responsibility'. *The Journal of Business Strategy*, 4(2):3–15.
- Moffatt, I. (forthcoming). 'Environmental space, material flow analysis and ecological footprinting' in Atkinson G., Dietz, S. and Neumayer, E. A. *Handbook of Sustainable Development*. Cheltenham: Edward Elgar.
- Murray A., Sinclair D., Power, D. and Gray, R. (2006). 'Do financial markets care about social and environmental disclosure? Further evidence and exploration from the UK'. *Accounting, Auditing and Accountability Journal*, 19(2):228–255.
- Neu, D., Warsame, H. and Pedwell, K. (1998). 'Managing public impressions: environmental disclosures in annual reports'. *Accounting Organizations and Society*, 23 (April):265–282.
- New Economics Foundation (2000). *Corporate Spin: The troubled teenage years of social reporting*. London: NEF.
- Norton, B. G. (forthcoming). 'Ethics and sustainable development: an adaptive approach to environmental choice' in Atkinson, G., Dietz, S. and Neumayer, E. *A Handbook of Sustainable Development*. Cheltenham: Edward Elgar.
- Oberndorfer, M. (2004). *Sustainability Pays Off: An analysis about the stock exchange performance of members of the World Business Council for Sustainable Development (WBCSD)*. Vienna: Kommunalkredit Dexia Asset Management.
- Orlitzky, M. and Benjamin, J. D. (2001). 'Corporate social performance and firm risk: a meta-analytical review'. *Business and Society*, 40,4(December): 369–396.
- Orlitzk, M, Schmidt, F. L. and Rynes, S.L. (2003). 'Corporate social and financial performance: a meta analysis'. *Organization Studies*, 24(3):403–441.
- Owen, D., Gray, R. and Bebbington, K. J. (1997). 'Green accounting: cosmetic irrelevance or radical agenda for change?' *Asia-Pacific Journal of Accounting*, 4, 2(December):175–198.
- Owen, D. L., Swift, T., Bowerman, M. and Humphreys, C. (2000). 'The new social audits: accountability, managerial capture or the agenda of social champions?' *European Accounting Review*, 9(1):81–98.
- Owen, D. L., Swift, T. and Hunt, K. (2001). 'Questioning the role of stakeholder engagement in social and ethical accounting, auditing and reporting'. *Accounting Forum*, 25, 3(September):264–282.
- Patten, D. M. (2002). 'The relation between environmental performance and environmental disclosure: a research note'. *Accounting Organizations and Society*, 27, 8(November):763–773.
- Patten, D. (2002b). 'Media exposure, public policy pres-

- sure and environmental disclosure: an examination of the impact of TRI data availability'. *Accounting Forum*, 26, 2(June):152–171.
- Pava, M. L. and Krausz, J. (1996). 'The association between corporate social responsibility and financial performance: the paradox of social cost'. *Journal of Business Ethics*, 15.3(March):321–357.
- Pearce, D., Markandya, A. and Barbier, E.B. (1989). *Blueprint for a Green Economy*. London: Earthscan.
- Porrirt, J. (2005). *Capitalism: as if the world matters*. London: Earthscan.
- Porter, M. E. and van der Linde, C. (1995) 'Green and competitive: ending the stalemate'. *Harvard Business Review*, (September/October):120–134.
- Prakash, P. and Rappaport, A. (1977). 'Information inducement and its significance for accounting'. *Accounting, Organizations and Society*, 2(1):29–38.
- Preston, L. E. (1978). 'Analyzing corporate social performance: methods and results'. *Journal of Contemporary Business*, 7:135–150.
- Rahaman, A. B., Lawrence, S. and Roper, J. (2004). 'Social and environmental reporting at the VRA: institutionalised legitimacy or legitimization crisis?' *Critical Perspectives on Accounting*, 15, 1(January):35–56.
- Rawls, J. (1972). *A Theory of Justice*. Oxford: Oxford University Press.
- Richardson, A. J., Welker, M. and Hutchinson, I. R. (1999). 'Managing capital market reactions to social responsibility'. *International Journal of Management Reviews*, 1(1):17–43.
- Roberts, R.W. (1992). 'Determinants of corporate social responsibility disclosure'. *Accounting, Organizations and Society*, 17(6):595–612.
- Rockness, J. W. (1985). 'An assessment of the relationship between US corporate environmental performance and disclosure'. *Journal of Business Finance and Accounting*, 12, 3(Autumn):339–354.
- Rivoli, P. (1995). 'Ethical aspects of investor behaviour'. *Journal of Business Ethics*, 14, 4(April):265–277.
- Savage, D. and Jasch, C.. (2005) *International Guidance Document on Environmental Management Accounting*. New York: IFAC.
- Schmidheiny, S. (1992). *Changing Course*. New York: MIT Press.
- Schmidheiny, S. and Zorraquin, F. J. (1996). *Financing Change: The financial community, eco-efficiency and sustainable development*. Cambridge, Mass.: MIT Press.
- Schwartz, P. and Gibb, B. (1999). *When Good Companies Do Bad Things: Responsibility And Risk In An Age Of Globalization*. New York: John Wiley.
- Simmons, C. and Neu, D. (1996). 'Managing social disclosures: the cost of social responsibility report'. *Journal of Applied Accounting Research*, 3(1):35–58.
- Simms, A. (2005). *Ecological Debt*. London: Pluto Press.
- Simon, J. L. (1981). *The ultimate resource*. Oxford: Martin Robertson.
- Simon, J. L. and Kahn, H. (1984) (eds). *The Resourceful Earth: a response to Global 2000*. New York: Blackwell.
- Skogsvik, K. (1998). 'Conservative accounting principles, equity valuation and the importance of voluntary disclosures'. *British Accounting Review*, 30, 4(December):361–382.
- Solomon, A. and Lewis, L. (2002). 'Incentives and disincentives for corporate environmental disclosure'. *Business Strategy and the Environment*, 11, 3(May–June):154–169.
- Solow, R. M. (1993). 'Sustainability: an economist's perspective' in Dorfman, R. and N.S. Dorfman (eds). *Economics of the Environment: Selected readings*, 3rd ed. Norton: New York:179–187.
- Spence, C. and Gray, R. (forthcoming). *Social and Environmental Reporting and the Business Case*. London: ACCA.
- SustainAbility/UNEP (2001). *Buried Treasure: Uncovering the business case for corporate sustainability*. London: SustainAbility/UNEP.
- SustainAbility (2002). *Trust Us: The 2002 Global Reporters Survey of Corporate Sustainability Reporting*. London: SustainAbility/UNEP.
- SustainAbility/WWF (2005). *Influencing Power: Reviewing the conduct and content of corporate lobbying*. London: SustainAbility/WWF.
- Toms, J. S. (2002). 'Firm resources, quality signals and the determinants of corporate environmental reputation: some UK evidence'. *British Accounting Review*, 34, 3(September):257–282.
- Turner, A. (2002). *Just Capital: the Liberal Economy*. London: Pan.
- Tregidga, H.M. and Milne, M.J. (forthcoming). 'From sustainable management to sustainable development: a longitudinal analysis of a leading New Zealand environmental reporter'. *Business Strategy and the Environment*.
- Tyteca, D., Carlens, J., Berkhout, F., Hertin, J., Wehrmeyer, W. and Wagner, M. (2002). 'Corporate environmental performance evaluation: evidence from the MEPI project'. *Business Strategy and the Environment*, 11.1(Jan–Feb):1–13.
- Ullmann, A. E. (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):540–557.
- United Nations Environment Programme, (UNEP, 2002). *Global Environmental Outlook (GEO – 3) 2002*. London: Earthscan.
- United Nations World Commission on Environment and Development (1987). *Our Common Future (The Brundtland Report)*. Oxford: OUP.
- Vedso, L. (1996). 'Compulsory green reporting in Denmark – from 1996'. *Social and Environmental Accounting Journal*, 16.1(April):7–8.
- Wackernagel, M. and Rees, W. (1996). *Our Ecological Footprint: Reducing Human Impact on the Earth*. Gabriola Island, BC: New Society Publishers.
- Wagner, M. (2001). *A review of empirical studies concerning the relationship between environmental and economic performance*. Lüneburg: Center for Sustainability Management, August.
- Walley, N. and Whitehead, B. (1994). 'It's not easy being green'. *Harvard Business Review*, May/June: 46–52.
- Webster, P.J., Holland, G.J., Curry, J.A. and Chang, H-R. (2005). 'Changes in tropical cyclone number, duration and intensity in a warming environment'. *Science*, 309, 16 (September):1,844–1,846.
- Weizsäcker, E. Von, Lovins, A.B. and Lovins, L. H. (1997). *Factor Four: Doubling Wealth, Halving Resource Use*. London: Earthscan.
- Welford, R. (ed) (1997). *Hijacking Environmentalism: Corporate response to sustainable development*. London: Earthscan.
- White, A. and Kiernan, M. (2004). *Corporate Environmental Governance: A study into the influence of environmental governance and financial performance*. Bristol: Environment Agency/ Innovest.
- Willums, Jan-Olaf (1998). *The Sustainable Business Challenge: A briefing agenda for tomorrow's business leaders*. Sheffield: Greenleaf Publishing, with WBCSD.

- Wiseman, J. (1982). 'An evaluation of environmental disclosure made in corporate annual reports'. *Accounting, Organizations and Society*, 7(1):53–63.
- WWF (2004). *Living Planet Report 2004*. Gland, Switzerland: WWF – World Wide Fund for Nature.
- Zadek, S. and Tuppen, C. (May, 2000). *Adding Values: The Economics Of Sustainable Business*. London: British Telecommunications plc.

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