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Diffusing Environmental Regulation through the Financial Services Sector: Reforms in the EU and other Jurisdictions

Summary

The financial services sector has the potential to be an important facet of future systems of environmental governance. But, so far, only ad hoc policy initiatives have arisen in the EU and other countries addressing the environmental roles of banks or insurers. Because the financial services sector is where wholesale decisions regarding future development, and thus pressures on the environment, arise, reform of investment, banking and insurance services to promote long term investment and better consideration of environmental impacts may be an effective way to promote sustainable development. Reforms such as corporate environmental reporting requirements, mandatory environmental liability insurance, and lender liability for borrowers' environmental harms, are some of the ways in which an institutional framework for mobilizing financial organizations as instruments of environmental regulation could be constructed.

§ 1. Environmental Governance through Financial Institutions

A. THE IMPORTANCE OF THE FINANCIAL SERVICES SECTOR

Preoccupied by problems of cost efficiency and policy instrument effectiveness, scholars and policy-makers worldwide have been exploring alternative regulatory techniques to traditional command-style regulations.¹ One approach to reinvigorate

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1. K. Bosselmann and B.J. Richardson, 'Introduction: New Challenges for Environmental Law and Policy', in K. Bosselmann and B.J. Richardson (eds.), *Environmental Justice and Market Mechanisms*, (Kluwer, 1998), 1-4; N. Gunningham and P. Grabosky, *Smart Regulation. Designing Environmental Policy*, (Clarendon Press, 1998).

environmental governance resides in the financial services sector.² Behind the activities of ordinary corporations are financial institutions such as banks, insurers and investors, which supply the capital and other resources necessary for much economic activity. Financial organizations are special types of companies or other institutions that are in the business of providing loans, financial advice, insurance services and management of investments to other firms and individuals. As the financial services sector is where wholesale decisions arise regarding future development, and thus environmental pressures, reform of investment, banking and insurance services to promote better consideration of environmental impacts may be a highly effective means for deterring unsustainable development. Whilst there already exist some reasons why financial service providers wish to avoid supporting environmentally harmful activities (e.g., where such activities reduce the profitability of an investment or pose an insurance risk), more often than not, barriers exist which cause environmental considerations to be ignored or trivialized in financial decision-making.

This article considers how an approach to environmental regulation diffused through the financial services sector could be institutionally constructed, and reflects on existing reforms in the European Union (EU) and other Western economies. Institutional investment, banking and insurance are each considered in turn. The approach is to examine the environmental policy relevance of each sector, and how government regulation could be adjusted to facilitate financial organizations' stronger engagement with environmental issues. The broad argument is that environmental regulation can be advanced when governments complement regulation of ordinary companies with regulation of their financial sponsors, and by harnessing the financial services sector as a mechanism for environmental governance. Because the financial services sector sponsors and profits from economic development, it arguably should share responsibility for ensuring such development accords with environmental standards. There are various factors, however, which can inhibit financial institutions' focus on the environment, principally where there are insufficient monetary incentives or inadequate information. The aim of government regulation promoting shared environmental governance with this sector must be to ensure that the right directions, incentives and information are available. If this is achieved, then financial institutions should provide a means of transmitting and amplifying primary environmental regulatory standards throughout the economy.

In the EU, there is formal acknowledgement of the potential for 'shared responsibility' for environmental regulation with financial markets, as briefly referred to first in the

2. See M. Jeucken, *Sustainable Finance and Banking: The Financial Sector and the Future of the Planet*, (Earthscan, 2001).

European Commission's (EC) *Fifth Environment Action Programme* (1992-2000).³ There are several ways in which financial institutions appear generically relevant to environmental management: as investors, they supply the resources for environmental initiatives; as stakeholders, such as shareholders and lenders, they exercise influence over corporate management; and as valuers, they price risks and predict the income of companies. Despite this potential, little work has been carried out by the EC or others on the possible environmental roles of financial institutions.⁴ Nevertheless, the idea of harnessing market organizations to facilitate policy goals is not unprecedented in public policy design; the contractual relationship between financial institutions and their customers has long been regulated to ensure public policy objectives and standards are met in relation to consumer protection.⁵

B. NOTIONS OF ENVIRONMENTAL GOVERNANCE

Mobilizing financial service providers in the quest to create an environmental law diaspora, whereby regulatory controls are diffused throughout the economy and society, may be congruent with broader shifts in patterns of governance oriented towards delegating and sharing responsibilities with the private sector. Because of the perceived advantages of the private sector in terms of management skills, efficiency and client knowledge, in various Western countries private organizations have been enlisted to furnish social services such as health care and undertake local government services, to name just a few examples.⁶ Such shifts can also be understood in terms of the desire of policy-congested states, unable to satisfy competing demands, to find ways to off-load responsibilities to civil society and the market.⁷ Various regulatory theorists emphasize that regulators operate increasingly in a pluralistic setting in which effective governance resides in flexible, collaborative mechanisms in which state functions are shared with or devolved to private interests.⁸ Unlike 'government', which denotes organizations and rules and implies a demarcation between public and private sectors, governance is viewed as centering on the complex interdependencies among actors, the inter-organizational linkages involving an array of market and non-governmental bodies. So,

3. EC, *Fifth Environment Action Programme, Towards Sustainability: A European Community Programme of Policy and Action in Relation to the Environment and Sustainable Development*, (EC, 1992), 25.
4. See, e.g., Delphi International and Ecological GMBH, *The Role of Financial Institutions in Achieving Sustainable Development*, (Delphi International, 1997); B.J. Richardson, *Environmental Regulation through Financial Organisations*, (Kluwer, 2002); S. Labatt and R.R. White, *Environmental Finance: A Guide to Environmental Risk Assessment and Financial Products*, (John Wiley & Sons, 2002).
5. R. Cranston, *Principles of Banking Law*, (Clarendon Press, 1997), 153.
6. J.D. Donahue, *The Privatization Decision: Public Ends, Private Means*, (Basic Books, 1989).
7. See J. Habermas, *Legitimation Crisis*, (Beacon Press, 1973); C. Offe, *Contradictions of the Welfare State*, (Massachusetts Institute of Technology Press, 1987).
8. See Rein, 'The Social Structure of Institutions: Neither Public nor Private', in S.B. Kamerman and A.J. Kahn (eds.), *Privatization and the Welfare State*, (Princeton University Press, 1989); J.Q. Wilson, *The Politics of Regulation*, (Basic Books, 1980).

instead of a government monopoly on regulation, governance suggests a combination of rules, incentives and informational mechanisms by which the state seeks to steer and co-ordinate the non-government sector, and processes by which the private sector exerts its own influence.⁹ Thus, Freeman sees governance as a process of 'negotiated relationships' between public and private actors,¹⁰ whilst Hancher and Moran emphasize shared 'regulatory spaces' inhabited by strategic government and private sector organizations.¹¹ Financial organizations such as banks and pension funds are highly relevant to such debates, as they are in effect 'gate-keepers' to the economy, supplying development loans for small businesses, equity capital for large public companies, or insurance coverage for companies engaged in environmentally risky activities. Schemes to diffuse environmental policy through the market more effectively must work with those strategically placed financial institutions that have the capacity to communicate and enforce policy goals and standards.

But the scope for sharing environmental governance with financial organizations must be influenced by the tools chosen for articulating environmental policy through this sector. Sometimes 'governance' may involve government delegating certain environmental supervisory tasks to financial institutions, but at other times governance will need to rely on more direct government supervision, depending on the nature of the issue, and the resources and expertise available to parties. Where quite entrenched features of the financial services sector impede sustainable development, somewhat greater reliance may need to be placed on direct command style controls and environmental liability rules. In other contexts, where financial institutional responses owe more to information and incentive deficits, use of economic incentives and informational mechanisms to promote collaborative governance would seem appropriate.

Governance is influenced by the fact that banks and other financial service providers are commercial entities interested in profitability, rather than pursuing ethically laudable objectives *per se*. They are not in the business of subsidizing good environmental practices. Another consideration is that direct regulatory commands are likely to be politically controversial, and thus vulnerable to implementation failure. There are several reasons why informational, incentive and liability tools should be emphasized. Reflexive law theorists such as Teubner argue that because of the disaggregation of modern societies into relatively discrete subsystems, such as the market, with their own codes and norms, regulation is more likely to succeed when it deploys less invasive mechanisms that serve to *stimulate* desired behaviour within market actors, producing an enhanced sensitivity to public policy objectives and a readiness to reflect on and

9. Stoker, 'Governance as Theory', 50 *International Social Sciences Journal* 155 (1998), 17.

10. Freeman, 'The Private Role in Public Governance', 75 *New York University Law Review* (2000), 543.

11. L. Hancher and M. Moran, 'Organizing Regulatory Space', in L. Hancher and M. Moran (eds.), *Capitalism, Culture and Economic Regulation*, (Clarendon Press, 1989).

adjust organizational policies and procedures accordingly.¹² Corporate environmental reporting is an example of this approach. Economic instruments such as pollution taxes and tradeable emission permits are also considered to have reflexive properties, in that they can explicitly convey in the language of market systems the price of engaging in environmentally exploitative activities.¹³ Sometimes, government conscription of financial organizations in the name of environmental policy will be welcomed as creating new market opportunities, such as requirements for firms to have their environmental performance assessed and certified by private auditors, or obligations to carry environmental liability insurance.¹⁴ The delegation and assignment of regulatory roles to auditors, accountants and other professions can be useful where they can competently develop appropriate regulatory standards and undertake effective supervision on behalf of the state. Overall, government regulation should aim primarily to make corporate environmental performance relevant to financial institutions' evaluation of corporate *economic* performance. Without this synergy, shared environmental governance will likely be resisted by financial organizations as a set of extraneous, imposed requirements, and there will concomitantly be a need for greater reliance on government rather than collaboration with the private sector.

Beyond questions of institutional design for promoting financial organizations' involvement, there are differences across countries and business sectors that will foster or inhibit governments from bringing financial entities into the environmental policy framework. For example, mobilizing institutional investors as a vehicle for corporate environmental responsibility arguably depends on the existence of extensive equity markets dominated by pension funds and other large investors. In the EU, only the United Kingdom (UK), Switzerland and the Netherlands strongly feature such conditions.¹⁵ Elsewhere, the United States (US) and Australia also have a well-developed institutional investor sector. One reason why Australia and the UK were among the first nations to introduce ethical investment reforms (as discussed below) appears to be because of the presence in each country of well-developed lobby groups for ethical investment reforms, namely Australia's Ethical Investment Association and the UK Social Investment Forum (UKSIF). In some jurisdictions, notably Germany and Japan, banks play a relatively larger role in corporate financing and so environmental regulation strategies that seek to mobilize the financial services providers would need to focus on the banking sector. National traditions and styles of environmental regulation is also an important variable. Countries with a tradition of economic deregulation and

12. Teubner, 'Substantive and Reflexive Elements in Modern Law', 17 *Law and Society Review* (1983), 239.
13. Orts, 'Reflexive Environmental Law', 89 *Northwestern University Law Review* 4 (1995), 1227.
14. Grabosky, 'Using Non-Governmental Resources to Foster Regulatory Compliance', 8 *Governance* 4 (1995), 527 at 530-36.
15. Blommestein, 'Impact of Institutional Investors on Financial Markets', in Organisation for Economic Co-operation and Development (ed.), *Institutional Investors in the New Financial Landscape*, (OECD, 1998).

use of economic policy instruments may be more receptive to addressing the role of financial organizations. Another important driver towards reform is the existence of supranational institutions and policies with an interest in this subject. Some European developments have occurred against the backdrop of EU policy in the *Fifth Environment Action Programme*. Globally, an emerging catalyst to boost the profile of environmental issues in global financial markets is the United Nations Environment Programme (UNEP), which has launched a Financial Institutions Initiative wherein banks and other financial entities pledge themselves to specified sustainable development practices.¹⁶

The prospects for reform of financial institutions are also likely to be shaped by the increasing transnational character of financial markets. Technological advances and the deregulation of capital markets in Western economies have greatly accelerated the geographical mobility of capital in its search for the most lucrative investments.¹⁷ The globalization of banking, insurance and investment services reduces the power of states individually to regulate financial institutions.¹⁸ Domestic regulatory moves that threaten economic interests can prompt the migration of financial resources to jurisdictions perceived as offering a more benign regulatory milieu. National regulators may also face capacity and information deficits when attempting to supervise enterprises engaged in complex trans-border commerce. International agreements and institutions are thus necessary to prevent environmentally enlightened financial service providers from suffering competitive disadvantages in their transnational business. Whilst this article does not explore the global regulation of financial bodies, it can be noted that apart from in the EU, the existing international regulatory apparatus in this sector is in an embryonic state.¹⁹ Clearly, a shift to shared environmental governance will unavoidably become more intertwined with internationalized patterns of policy-making involving international organizations and other transnational actors.

The shift towards shared governance is not without challenges and potential problems for the state. Dangers range from policy incoherence, if the state is unable to strategically direct decision-making, to complete policy failures if private institutions capture and distort regulatory programmes. More ambiguously, there is the risk of a weakening of public culture as administrative functions are displaced through devolution to the private sector where different economic values prevail.²⁰ Rhodes warns that without effective systems of democratic supervision, governance networks may be less accountable than the state if decisions are largely removed from the

16. UNEP, *Statement by Banks on Environment and Sustainable Development*, (Advisory Committee on Banking and the Environment, 1992).
17. A. Walter, *World Power and World Money*, (Harvester Wheatsheaf, 1993), 202-04.
18. J. Braithwaite and P. Drahos, *Global Business Regulation*, (Cambridge University Press, 2000), 7-8.
19. See EC, *Institutional Arrangements for the Regulation and Supervision of the Financial Sector*, (EC Internal Market Directorate General, 2000).
20. P. Self, *Government by the Market? The Politics of Public Choice*, (Macmillan Press, 1993).

traditional governmental apparatus.²¹ Because of the risk that shared governance may generate confusion among regulatees and the broader community regarding where final authority and policy responsibility lies, it is essential that chains of regulatory control are readily traceable back to the primary government authorities. Careful design of monitoring and oversight mechanisms is needed to ensure the state is able to track and verify implementation of policy goals and ensure governance systems are democratically nourished. Grabosky sees the challenge as one of ‘meta-monitoring’, by which government agencies focus on ‘strategic surveillance’ and ‘monitoring the overall regulatory system’ but engage in ‘authoritative intervention’ where third party resources are lacking.²²

In addition to appropriate definition of the institutional relationships between the state and market, collaborative environmental governance raises the question of what environmental policy functions are to be actually *shared*. There is an extensive literature which highlights problems markets face in addressing environmental concerns, including undervaluation of ecological properties, discounting of future environmental costs and benefits,²³ and an inability to address the problem of scale, or aggregate resource use within biosphere limits.²⁴ Decentralized financial markets cannot guide society towards specific environmental goals without government direction. Environmental policy goals must derive from an interdisciplinary analysis of ecological, social and economic considerations, undertaken within participatory policy systems. Also, financial institutions are unable to offer the same public participation and information rights and procedures that are an integral part of current environmental regulation in many countries. Economic analysis can help determine the cost of achieving such ecological standards, but not the substantive merits of environmental objectives, which arises from participatory policy-making. In terms of expertise and management systems, financial service providers also cannot undertake many of the specialist functions of modern environmental agencies in government. Thus, whilst there should be room for sharing environmental responsibilities with financial organizations regarding the financing of green developments and management of pollution risks, it is inconceivable that banks or insurers could operate national parks or be urban planners. The value of the financial services sector lies in its strategic market position that can be manipulated by government rules, information and monetary incentives to enable environmentally sound companies to flourish at the expense of polluters and resource degraders. The following sections canvass this theme and current reforms in the three main financial sectors.

21. R.A.W. Rhodes, *Understanding Governance: Policy Networks, Governance, Reflexivity and Accountability*, (Open University Press, 1997), 54.

22. Grabosky, 8 *Governance* 4 (1995), 527 at 544.

23. See R. Costanza et al., *An Introduction to Ecological Economics*, (St. Lucie Press, 1997).

24. Daly, ‘Allocation, Distribution and Scale: Towards an Economics that is Efficient, Just and Sustainable’, 6 *Ecological Economics* 3 (1992), 185.

§ 2. Institutional Investors

A. OPPORTUNITIES FOR AND CONSTRAINTS TO ENVIRONMENTAL INVESTMENT

Environmental issues can alter the economic assumptions that underlie an investor's decision to commit capital to an enterprise. Systems of capital investment are where primary decisions regarding future development, and thus pressures on the environment, begin.²⁵ Given that sustainable development stresses maintenance of natural and human capital for posterity, the role of capital markets must be recognized as pivotal to sustainability strategies.²⁶ Financial markets generally provide capital to businesses with the objective that it should ideally grow and generate profits. Whilst there is a difference between financial capital (i.e., economic assets and income) and the broader concept of capital in sustainable development (i.e., natural resources and ecosystem integrity), financial capital is relevant to the environment as it enables major investments to be undertaken, such as technological innovations, which invariably have environmental effects of some form. Sharing environmental governance with this sector of the financial markets can be achieved by encouraging investors to favour environmentally sound companies and to use their financial leverage to make corporate management and policy more mindful of natural resource use and pollution concerns.

Today, capital markets are overwhelmingly dominated by large institutional investors, rather than by individual 'amateur' shareholders.²⁷ In recent decades, institutional savings have mushroomed as societies make greater private provision for old age in the face of shrinking welfare entitlements. As financial intermediaries, investors assist with risk reduction by pooling and diversifying assets and lowering the transaction costs of contracting and information processing.²⁸ The institutional investment community has a diverse membership, including public and private pension funds, mutual funds, life insurance companies, university foundations and funds managed by banks. A technical distinction can be made between *institutional* investors *per se*, involving, for example, the investment actions of pension funds using their beneficiaries' monies, and *retail* investments, where individuals directly contribute to a mutual fund that specializes in investing in certain market segments. In both cases, however, a specific investment institution is managing investments. Within the OECD area, insurance companies are

25. S. Schmideiny and F. Zorraquin, *Financing Change: The Financial Community, Eco-Efficiency and Sustainable Development*, (Massachusetts Institute of Technology Press, 1996).
26. England, 'Natural Capital and the Theory of Economic Growth', 34 *Ecological Economics* 3 (2000), 425.
27. Rada and Trisoglio, 'Capital Markets and Sustainable Development', 27 *Columbia Journal of World Business* 3/4 (1992), 42.
28. Black, 'Agents Watching Agents: The Promise of Institutional Investor Voice', 39 *U.C.L.A. Law Review* (1992), 813.

the largest investors, followed by pension funds.²⁹ Apart from commercial investors, there is also an assortment of communal financial entities, such credit unions, building societies, industrial and provident associations and public charities, which can make a worthwhile contribution to social investment and community regeneration.³⁰

The relationship between financial markets, investors and sustainable development is problematic. There is evidence that financial markets do not efficiently allocate capital, and that unsustainable, speculative bubbles suck in financial resources whilst inefficient under-investment arises at other times or in other sectors.³¹ Such capital flows may be associated with adverse social and environmental effects arising from company and project investment choices. These problems have been framed by some commentators as arising from a distinction between the 'paper' investments of the myopic financial markets against 'real' investments in socially useful goods and services.³² Yet, a number of commentators stress the growing benign influence of institutional investors in promoting sustainable development. In their book *The Rise of Fiduciary Capitalism*, Hawley and Williams identify the institutional investor as a new voice for promoting corporate social and environmental responsibility.³³ This is because institutional investors are 'universal owners' holding a broad portfolio of stocks, and possessing an interest in the health and long-term sustainability of the entire economy rather than the profitability of individual businesses. As fiduciaries, long-term investors and majority owners, Hawley and Williams assert that institutional investors are not concerned with short-term returns on investment, but rather long-term performance to meet the needs of their present and future beneficiaries. Similarly, Monks, in *The New Global Investor*, argues that the universal or 'global investor', 'is likely to make good decisions for the long-term of society, because it can afford in most cases to take a long-term view, and a diversified view. An ordinary domestic investor may need to reap profits in the short term'.³⁴ Hawley and Williams believe that universal owner status gives institutional investors an interest in public policy governance issues in areas outside the traditional macroeconomic agenda. They state: 'a universal owner that really wants to maximize the shareholder value of its portfolio would need to develop public policy-like positions and monitor regulatory developments and legislation on a number of key issues for the economy as a whole'.³⁵ Accordingly, businesses in which they invest should be

29. Organisation for Economic Co-operation and Development, *Institutional Investors: Statistical Yearbook 1998*, (OECD, 1999).

30. See A. Hudson, *The Law on Investment Entities*, (Sweet & Maxwell, 2000), 259-94.

31. Baker and Fung, 'Collateral Damage: Do Pension Fund Investments Hurt Workers?' in A. Fung, T. Hebb and J. Rogers (eds.), *Working Capital: The Power of Labor's Pensions*, (Cornell University Press, 2001), 13.

32. J. Stanford, *Paper Boom: Why Real Prosperity Requires a New Approach to Canada's Economy*, (Canadian Centre for Policy Alternatives, 1999), 65.

33. J.P. Hawley and A.T. Williams, *The Rise of Fiduciary Capitalism*, (University of Pennsylvania Press, 2000).

34. R.A.G. Monks, *The New Global Investors*, (Capstone Publishing Limited, 2001), 105.

35. Hawley and Williams, *The Rise of Fiduciary Capitalism*, 170.

conducted in a financially, socially and environmentally responsible manner that supports a healthy and sustainable economy.

Certainly, the growth of institutional investment funds has pooled mammoth resources capable of exerting significant leverage over corporate environmental activities. And there are many reasons why the environment might be of interest to institutional investors. Pension funds and life insurance companies in particular have long-term financial liabilities, providing a structural incentive to favour lasting, sustainable investment. Further, fund managers have fiduciary responsibilities in trust law and statute to take an active interest in corporate governance.³⁶ Ethical screening can appeal to investors because it reinforces notions of socially responsible governance. There is growing evidence of a correlation between corporations that embody socially responsible governance and sustainable development.³⁷ Good environmental and social performance is often seen as a proxy for a financially well-managed company. In North America, there is growing empirical evidence of a correlation between share price movements and corporate environmental performance.³⁸ Poor environmental performance that threatens firm profitability is thus a basis for intervention in corporate management or the switching of investments.

There is evidence in the EU and internationally of a growing niche market for environmental investment products and funds. Environmentally responsible investment is being effected in several ways, most commonly through 'ethical screening' involving the inclusion or exclusion of shares in investment portfolios on environmental grounds, 'cause' based project investments, and shareholder activism to change corporate policy and practice.³⁹ In the EU, there were estimated to be some 250 specialist ethical investment funds taking account of environmental and other concerns operating in 2001, up from a mere 50 such funds a decade earlier.⁴⁰ The founding of several indices to track ethical investments points to the growing legitimacy of this sector. Leading ethical investment indices include the Dow Jones Sustainability Group Index and the UK's Financial Times Stock Exchange's 'ethical index'. Yet the total size of ethical investment funds is still small compared to the market capitalization of companies in which they invest; in the UK, ethical investment in September 2001 comprised a mere

36. Tasch and Viederman, 'New Concepts of Fiduciary Responsibility', in F. Capra and G. Pauli (eds.), *Steering Business Toward Sustainability*, (United Nations University Press, 1995), 125.

37. See generally R. Sparkes, *Socially Responsible Investment: A Global Revolution*, (John Wiley & Sons, 2002).

38. E.g., Lanoie, Laplante and Roy, 'Can Capital Markets Create Incentives for Pollution Control?', 26 *Ecological Economics* 1 (1998), 31; Blacconiere and Northcut, 'Environmental Information and Market Reactions to Environmental Information', 12 *Journal of Accounting, Auditing and Finance* 2 (1997), 149

39. R. Sparkes, *The Ethical Investor*, (Harper Collins, 1995), 1-18.

40. Sustainable Development Research International Group, *Green, Social and Ethical Funds in Europe in 2001*, (SDRIG, 2002), 7.

3.5 per cent share of the investment market, compared to 13 per cent in the US.⁴¹ But, encouragingly, the growth of ethical investments in recent years has tended to exceed other investments. However, whether it will grow out of its 'niche' position to a more pervasive feature of financial markets is currently unclear.

There are countervailing barriers to more environmentally sensitive investment practices, including inadequate information about corporate environmental performance, the absence of appropriate taxes on environmental resource use and pollution, which can thereby make it difficult to measure environmental performance in financially relevant terms, and structural barriers in corporate governance systems that can impede investor shareholder activism. Investor uncertainty concerning the environmental integrity of a product or company performance is a major barrier. Surveys of the financial services sector have revealed a patchy understanding of the relevance of corporate environmental performance.⁴² The lack of corporate reporting on environmental activities and costs is a factor that undoubtedly has contributed to this poor understanding. As discussed later in this article, mandating some level of environmental reporting by businesses is a necessary reform if investors are to be mobilized as instruments of environmental governance.

In common law jurisdictions such as the US and UK, institutional investor passivity or ignorance may also be explained in terms of the effect of trust law precedents. Trustee investors who are required to invest prudentially on behalf of others (e.g., pension funds) may find the safest course is to adopt investment strategies similar to their peers. Notions of fiduciary responsibility have been interpreted in the seminal British cases of *Cowan v Scargill*⁴³ and *Martin v City of Edinburgh District Council*⁴⁴ as constraining pension fund managers from taking into account ethical factors that may detract from securing the optimal financial return for beneficiaries when choosing investments. However, where an investment fund is established explicitly as an ethical investment vehicle, then the trust law constraints against green investment are largely removed so long as the optimal financial returns within the agreed governing framework of environmental or other investment principles are pursued. In continental Europe, quantitative regulation of investment portfolios is typically applied, such as restrictions on particular classes of investment including foreign securities, real estate and loans.

41. Cerulli Associates, *The Cerulli Edge – Global Edition*, (Sept. 2001), at <www.cerulli.com>.

42. See, e.g., PricewaterhouseCoopers, *Report on Financial Institutions Initiative – Australia*, (PricewaterhouseCoopers, 2000).

43. (1984) 2 All ER 750.

44. (1988) SLT 329.

Asset type restrictions on where EU-based funds can invest appear to be diminishing, partly due to the recent UCITS amendment Directive of 2001.⁴⁵

In many countries, company law rules can be the source of constraints to ethically-minded investor activism. Because of legal constraints on concentrated ownership, fiduciary obligations that require extensive diversification to minimize risk and a strong preference for liquidity, institutional investment agents have tended to seek portfolios comprising fragmented holdings across a plethora of companies.⁴⁶ This can reduce the influence of an investor or discourage activism because the stakes may be considered too small given the size of the institution's equity holdings. However, the regulatory trend in Western states has been for securities watchdogs to liberalize rules restricting shareholder proposals from management's proxy statement and other company law obstacles to shareholder activism.⁴⁷ Although EU institutions are increasingly setting standards for corporate governance, innovative reforms are still occurring in a number of EU Member States, such as Britain.⁴⁸

B. PROMOTING ETHICAL FINANCE

Among the other reforms that can stimulate shared environmental governance with investors are requirements that investment institutions consider the environmental effects of their own activities and publicly report on their policies in this respect. In the UK, for instance, in July 1999 the government promulgated a regulation under the Pensions Act 1995 requiring occupational pension fund trustees to disclose their policies on socially responsible investment and on the exercise of shareholder rights, including voting rights.⁴⁹ This UK initiative has inspired similar reforms in the EU and Australia.⁵⁰ Legislation requiring pension fund managers to disclose or take account of environmental, social or ethical considerations in their investment policies has arisen in France,⁵¹ Germany,⁵² Sweden⁵³ and Belgium.⁵⁴ The French and Swedish examples

45. Directive 2001/108/EC amending Council Directive 85/611/EEC on the coordination of laws, regulations and administrative provisions relating to undertakings for collective investment in transferable securities (UCITS), with regard to investments of UCITS, [2002] O.J. L41/35.

46. Lee, 'Modern Portfolio Theory and the Investment of Pension Funds', in P. Finn (ed.), *Equity and Commercial Relationships*, (Law Book Company, 1987), 303.

47. See, e.g., recent changes in Australia to the Company Law Review Act 1998; and Canada's 2001 amendments to the Business Corporations Act 1985.

48. UK, Department of Trade and Industry (DTI), *Modern Company Law for a Competitive Economy: Final Report. Annex C, Statement of Director's Duties*, (DTI, 2001).

49. Enacted pursuant to s 35(3)(f), Pensions Act 1995: *Occupational Pension Schemes (Investment, and Assignment, Forfeiture, Bankruptcy etc.)*, Amendment Regulations 1999, cl. 2(4).

50. See Richardson, 'Pensions Law Reform and Environmental Policy: A New Role for Institutional Investors?', 3 *Journal of International Financial Markets: Law and Regulation* 5 (2002), 159.

51. *Projet de loi sur l'épargne salariale*, 7 February 2001. No.2001-152, article 2; *Projet de loi portant diverses dispositions d'ordre social, éducatif et culturel*. 28 June 2001, Chapitre Vbis, article L.135-8.

52. *Betriebliche Altersvorsorge*: article 10, *Änderung des Versicherungsaufsichtsgesetzes*.

include obligations to actually take the environment into account, although these requirements pertain largely to state-based pension schemes. Another ambitious reform was undertaken in Australia, whereby the Financial Services Reform Act 2001 applied an ethical disclosure obligation on a wider range of investment products including: pensions, managed investment products and investment life insurance products.⁵⁵ But, like the UK initiative, none of the more recent examples attempts to statutorily define criteria of ethical investment, and all only weakly address the challenge of monitoring compliance. Recent empirical evidence of the effect of the UK reforms suggests that whilst there has been a significant increase in adoption of ethical investment policies by pension funds, the quality and implementation of such policies has been weak.⁵⁶

Beyond environmental disclosure requirements for investors, governments could consider mandating consideration of environmental issues in the regulatory envelope governing financial regulators. During the preparation of the UK's Financial Services and Market Act 2000, which created a single regulator for the financial services industry, the Financial Services Authority (FSA), the UKSIF argued before the House of Commons Environmental Audit Committee that there had been no environmental appraisal of the statute's potential consequences. The UKSIF unsuccessfully requested inclusion of a reference to sustainable development in the Authority's mandate; for example, to require best practice in environmental risk management and to encourage the provision of environmental investment and environmental lending products.⁵⁷ In the absence of an explicit political mandate, at best financial regulators could be expected to issue guidance notes on environmentally prudent investment practices. Already, the Environment Department and the Corporation of London issued in August 2002 their so-called *London Principles of Sustainable Finance*, which advocate a limited range of measures to improve acknowledgement of the environmental dimensions of financial market activities.⁵⁸

Apart from domestic-sourced rules, the EU Member States are subject increasingly to EU financial law, and, less intrusively, emerging international standards. The EU has issued a plethora of directives and policies to ensure competition in financial services

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53. Cited in Fjärde AP-fonden (Fourth Swedish National Pension Fund), *A Presentation of Sweden's New National Pension Funds*, (Fjärde AP-fonden: 2001).
54. *Projet de loi relative aux pensions complémentaires*, article 42.
55. See Richardson, 'Ethical Investment and the Commonwealth's Financial Services Reform Act 2001', 2 *National Environmental Law Review* (2002), 47.
56. D. Coles and D. Green, *Do UK Pension Funds Invest Responsibly?*, (JustPensions, 2002), 1.
57. UKSIF, 'UK Social Investment Forum tells MPs of Need to Include Environment in Framework for Financial services regulator', Press Release, (19 April 1999).
58. Corporation of London, and Department of Environment, Food and Rural Affairs (DERFA), *Financing the Future. The London Principles: The Role of UK Financial Services in Sustainable Development*, (DEFRA, 2002), 7.

markets.⁵⁹ But no EU-wide financial services regulator has been established. Environmental concerns have hardly been a feature of EU services financial regulation to date. The EC's proposal in 2000 for a directive on the activities of institutions for occupational retirement provision⁶⁰ omitted any environmental disclosure provisions, although an amendment to the EC's proposal was later advanced in the European Parliament to provide an obligation to refer to 'ethical and socially responsible investment principles' in the Article 12(1) disclosure of investment policies requirements.⁶¹ Elsewhere, amendments to the EU's Eco-Management and Audit Scheme⁶² and the Eco-Label Regulation⁶³ have allowed for their extension to financial services, thereby enabling investment and other financial service products to be more readily assessed and compared in terms of their environmental credentials.⁶⁴

One possibility for future EU financial services law reform would be to authorize establishment of a specific ethical investment institution, that would be free to invest in a range of asset types according to environmental, social and other ethical criteria. Mayo and Mullineux suggest such an institution could function as a mutual investment fund that is open-ended and working under contract law, and thus able to give priority to environmental and social returns over financial returns.⁶⁵ Whilst there appears to be some merit in legislating for a specialist ethical financing vehicle, it poses the risk that mainstream investors (e.g., pension funds) would see the environment as an issue not directly relevant to their own operations. For ethical finance to be integrated into financial markets, it must become embedded in the culture of mainstream financiers. At a minimum, this would seem to require maintenance of obligations on investment institutions to appraise their environmental activities and impacts, and to disclose their ethical investment policies.

Besides appropriate financial and information incentives to promote environmental investment, there is the nagging issue of the internal governance of investment institutions. In relation to pension funds, for example, there is debate on the merits of

59. By way of introduction, see EC, *Institutional Arrangements for the Regulation and Supervision of the Financial Sector* (EC, 2000). See, e.g., Council Directive 93/22/EEC of 10 May 1993 on investment services in the securities field, [1993] O.J. L141/27; Council Directive 93/6/EEC of 15 March 1993 on capital adequacy of investment firms and credit institutions, [1993] O.J. L141/1.
60. COM(2000) 507 final.
61. European Parliament, Committee on Economic and Monetary Affairs, *Draft Report on the Proposal for a European Parliament and Council Directive on the Activities of Institutions for Occupational Retirement Provision*, (8 May 2001). PE 295.986/AM/48-134, at 52.
62. Council Regulation 761/2001 of 19 March 2001 allowing voluntary participation by organisations in a Community eco-management and audit scheme, [2001] O.J. L114/1.
63. Council Regulation 1980/2000 of 17 July 2000 on a revised Community Eco-label Award Scheme, [2000] O.J. L237/1.
64. For analysis, see Richardson, 'Implications of Recent Changes to the EMAS and Eco-label Regulations for the Financial Services Sector', 14 *Environmental Law and Management* 2 (2002), 131.
65. E. Mayo and A. Mullineux, *Regulation of Social Investment*, (New Economics Foundation, 2000).

democratizing pension fund governance to ensure that worker beneficiaries have more say in how their monies are invested.⁶⁶ Through worker influence over pension fund investments, there could be a shift away from short-term profit focus to long-term real investment. Some labour movement activists are attempting to acquire greater representation on pension fund boards of trustees either through joint or sole trusteeship, or to establish advisory boards to these bodies. In Canada, for example, Quebec pension legislation establishes mechanisms for employee representation on pension management boards.⁶⁷ Other salient models for democratizing pension fund administration exist in Germany and Switzerland. But contrary to the optimism enunciated by Drucker in his book *Unseen Revolution: How Pension Fund Socialism Came to America*,⁶⁸ the reality is that pension plan beneficiaries generally do not control where their pension monies are invested.⁶⁹ The question of how the governance of pension funds and other investment entities should be democratized, and the connections between democratic governance and sustainable development, is beyond the scope of this Article. But it is likely to become an important pathway for promoting social justice in the context of environmental governance in financial markets.

§ 3. Banks

A. ENVIRONMENTAL ISSUES IN BANKING

Whereas institutional investors are relevant to environmental financing through their investments in the equity markets, banks are important for their role in providing project finance for specific developments and in funding small, unlisted businesses. Banks are financial intermediaries for the receipt of deposits from members and deployment of such deposits by way of loans and investments for development and consumption purposes. For banks worldwide, environmental issues are becoming a stronger concern for several reasons.⁷⁰ First, there is the prospect of direct lender liability where a bank becomes responsible for the environmental liabilities of its clients, such as contaminated land cleanup liability.⁷¹ Second, environmental problems can generate indirect credit risks for lenders where a borrower experiences financial hardship. Third, there is reputational risk for banks when associated with environmentally controversial

66. See F. Kodar, *Corporate Law, Pension Law and the Transformative Potential of Pension Fund Investment Activism*, (LLM Thesis, Osgoode Hall Law School, York University, 2002), 57.

67. *Supplemental Pension Plans Act*, S.Q. 2001, c. R-15.1.

68. P. Drucker, *Unseen Revolution: How Pension Fund Socialism Came to America*, (Harper & Row, 1976).

69. J. Rifkin and R. Barber, *The North Will Rise Again: Pensions, Politics and Power in the 1980s*, (Beacon Press, 1978).

70. Richardson, 'Environmental Liability and Banks: Recent European Developments', 17 *Journal of International Banking Law* 10 (2000), 289 at 290.

71. Rose-Ackerman, 'Environmental Liability Law', in T.H. Tietenberg (ed.), *Innovation in Environmental Policy*, (Ashgate, 1992), 243; J.J. Norton, R.M. Auerback and J.M. Gaba, *Environmental Liability for Banks*, (Lloyd's of London Press, 1995).

developments. In the EU, a number of banks have gone beyond these features of 'defensive' banking, involving the avoidance of obvious environmental problems, to the conscious promotion of sustainable development through differential interest rates and other services and incentives provided to encourage environmentally friendly development.⁷² Banks in the latter mould include UmweltBank in Germany, the Triodos Bank in the Netherlands and the UK's Co-operative Bank.

Interest by private banks in environmental matters is also being shaped by reforms to the provision of public development finance. Notably, there have been extensive changes to the operations of the multilateral development banks (MDBs), which have adopted environmental procedures and standards that clients must satisfy for project approvals.⁷³ The European Bank of Reconstruction and Development has gone the furthest in this respect and is the only MDB to be given a specific environmental mandate in its charter.⁷⁴ Multilateral development bank environmental lending standards can provide benchmarks for private banks interested in environmental issues.⁷⁵ Of course, many private banks have not been inspired by the MDB reforms or other reasons to consider the environment because of differences in their loan portfolio, clientele and other aspects of the financial markets they work in, and differences in the regulatory structures by which they are governed. The challenge for policy reformers is first to identify areas of banking operations in which environmental policy concerns can be relevant and can be feasibly embedded into governance regimes.

The relationship between borrowers and lenders is one of the critical points at which the interests of the environment can be factored into economic decision-making. Lenders often face a long payback period, and their concern for repayment creates in theory an interest in the sustainability of the borrower's activities. This interest can be articulated where institutional processes are available that allow banks to share their expertise with and give guidance to their borrowers. In the US, threats of contaminated site liabilities under the so-called Superfund legislation⁷⁶ helped catapult environmental concerns to the forefront of banks' analysis of credit arrangements. Many banks insist on indemnity agreements in loan contracts or demand that borrowers obtain liability insurance.⁷⁷ Nonetheless, such liabilities may lower the credit worthiness of the debtor (or

72. See J.J. Bouma, M. Jeucken and L. Klinkers (eds.), *Sustainable Banking: the Greening of Finance*, (Greenleaf Publishing, 2001).

73. World Bank, *Mainstreaming the Environment: The World Bank Group and the Environment*, (World Bank, 1995).

74. Article 21(vii) requires the Bank to 'promote in the full range of its activities environmentally sound and sustainable development': *Agreement establishing the European Bank for Reconstruction and Development*, [1990] O.J. L372.

75. Bank of America, *1999 Environmental Progress Report*, (Bank of America, 2000), 17.

76. Comprehensive Environmental Response, Compensation and Liability Act 1980, Pub. L. No.96-510, 94 Stat. 2767 (11 Dec. 1980), codified at 42 USC §§ 9601-9675.

77. See Peck, 'Viable Protection Mechanisms for Lenders Against Hazardous Waste', 18 *Hofstra Law Review* (1989), 89 at 109.

guarantor) or reduce the value of any security. Appraising the environmental *sequelae* of loan proposals helps protect a bank financially; projects that incur environmental liabilities may adversely affect a borrower's cash flows and thereby compromise loan repayments. A more ambitious role for banks involves going beyond the mere vetoing of projects posing environmental liabilities, to being a facilitator, whereby companies and industries are steered towards best environmental practice. The greatest reach of the banking sector here is in its relationship to smaller, private companies reliant on debt financing, as they are not listed on the stock market. Banks can be influential here through lending practices, by providing information, and offering specialist environmental financial services (e.g., energy efficiency loans). Banks may be in a position to compel borrowers to conform to new global industry standards with respect to product quality, production processes and labelling.⁷⁸ But without government intervention to embed environmental standards in banking regulation, this sector may be disinclined to voluntarily undertake such a role except where it relates to avoidance of potential environmental liabilities or achievement of more profits.

B. REFORMING THE BANKING SECTOR

Recent EU developments point to some ways in which this problem could be corrected. The EU's Eco-management and Audit Scheme (EMAS) Regulation and Eco-label Regulation, both voluntary schemes for businesses, have been amended to encompass financial institutions and products. The need to open the EMAS Regulation to the financial sector has been acknowledged for several years, as the site-based focus of the original 1993 EMAS Regulation made it unsuitable for measuring the indirect environmental effects of the financial decisions of banks and investors.⁷⁹ The EMAS Regulation was revised in March 2001 to extend the scheme to all sectors of economic activity with a focus on company operations as a whole rather than on specific industrial sites.⁸⁰ There is more emphasis on 'indirect environmental aspects', defined as including 'capital investments, granting loans and insurance services'.⁸¹ In addition, the 1992 Eco-Label Regulation was amended in 2000 to redefine 'products' to include 'any goods and services', thus implementing earlier European proposals to expand the Eco-Label scheme to the financial services sector.⁸² This reform means that banking and investment products can be more readily assessed and compared in terms of their environmental credentials, and this should facilitate marketing and reward innovation. These EU innovations point to a style of shared environmental governance that relies on

78. Rondinelli and Vastag, 'International Environmental Standards and Corporate Policies: An Integrative Framework', 39 *California Management Review* 1 (1996), 106.

79. EC, *Workshop on Sustainable Development – Challenge for the Financial Sector*, (EC, 1998), 12.

80. Council Regulation No. 761/2001/EC of 19 March 2001 allowing voluntary participation by organisations in a Community eco-management and audit scheme, [2001] O.J. L114/1.

81. *Ibid.* Annex. cl. 6.3(b).

82. Council Regulation No. 1980/2000 of 17 July 2000 on a revised Community Eco-label Award Scheme, [2000] O.J. L237/1.

voluntary approaches and market incentives for corporate participation, such as an improved environmental profile among environmentally conscious consumers and productivity gains through reduced waste and resource consumption.

In relation to national banking regulation, no serious consideration has yet been made by governments as to whether environmental policy concerns should be grafted into control systems. Banks are incorporated entities and hence subject to company law controls. Because of their responsibilities as repositories for people's savings, banks are subject to additional prudential regulation which addresses a range of public policy concerns, principally investor-protection and consumer service standards, through capital adequacy and liquidity requirements.⁸³ Money laundering controls, requiring financial institutions to report suspicious transactions, illustrates the ability of government to harness banks as co-regulators in furtherance of policy objectives. Banks are also in a position to use contract law mechanisms to demand environmental information about the development projects they fund, and banks often retain considerable environmental expertise in-house or have access to it via consultants to evaluate such information. Although banks should not be a substitute for environmental appraisal activities currently discharged by state authorities – because of the opportunities for public participation that commonly exist in such government supervised appraisal systems – it would be fruitful for regulators to explore ways in which bank-based environmental assessments could be integrated into state-based assessments. In any event, banks could at least expect their borrowers to comply with environmental legislation, and to provide lending on preferential terms to clients that demonstrate a high standard of legislative compliance that poses fewer liability risks.

There could be scope within existing regulatory parameters for financial regulators to introduce environmental standards as conditions of banking authorizations. One potentially powerful measure would be to offer financial incentives for banks to introduce differential interest rates (and hence cost of availability of capital) to reflect the environmental risks of different types of development. In the home loan and building financing markets, some lenders are offering 'green mortgages' as a way of meeting consumer demand for environmentally friendly, energy-efficient houses. The lending schemes vary in criteria and benefits, but in general the loans offer borrowers higher credit ratios and, sometimes, lower interest rates.⁸⁴ But as with ethical investment funds, green mortgages represent a niche segment of the financial markets currently addressed by only a few institutions, and the incentives for more general practices in the banking sector in this area seem to be lacking. Again, government intervention is required.

83. R. Lastra, *Central Banking and Banking Regulation*, (Financial Markets Group, 1996).

84. See, e.g., S. Brady, 'Fannie Mae/NAHB Launch Effort to Develop "Green" Mortgages', 6 *Professional Builder* (1999), 1.

Governments could encourage banks to give preferential treatment to projects that meet sustainability criteria by providing tax relief for profits earned on environmental-friendly development loans. The Netherlands has explored the taxation option, and in January 1995 the Dutch government introduced a green investment scheme that allows banks to offer depositors funds whose interest or dividends are exempt from personal taxation. In order to qualify, the fund must invest at least 70 per cent of its assets in environmentally friendly projects (e.g., renewable energy and organic agriculture).⁸⁵ Because of this initiative, several Dutch banks moved to set up their own green investment funds, which have been heavily subscribed. The attractive interest rates for investors result in more funding of progressive new projects that were formerly perceived as risky with limited return.⁸⁶ Although these unique reforms may be explained by the fact that the Netherlands is a country with a relatively high level of environmental awareness, and a strong tradition of environmental law innovation, other countries may now follow suit given emerging evidence that the Dutch green investment scheme is encouraging sustainable development projects.⁸⁷

Beyond controls on the operation of banks, governments can promote environmentally responsible lending through appropriately directed liability legislation. Increased lender liability may eventually lead to a reduction in the number of environmentally damaging activities that are financed and thereby eliminate industries and businesses associated with environmental problems in the market. Environmental lender liability has become a grievance in various industrial economies because of legislative changes or judicial precedents.⁸⁸ The potential environmental liability of lenders arises from the definitions of 'owner', 'operator', 'permits' or 'causes' found in pollution control legislation. A wide interpretation of such words may implicate lenders despite the fact that they had no direct role in causing the contamination. Liability could occur as the result of being the potential owner of a contaminated property, through the right to realize the borrower's security, or by providing guarantees for firms with potential or actual environmental liability (e.g., firms handling hazardous wastes).

The most persuasive evidence of the effect of government intervention into financial markets is in the US where the behaviour of banks has been profoundly influenced by the implementation of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) 1980, which may make a lender vicariously liable for

85. Netherlands Agency for Energy and the Environment (Novem), *Financing Energy and Environmental Technology: The Dutch Way*, (Novem, 1997).

86. Jencken, *Sustainable Finance and Banking*, 92-95.

87. T. van Bellegem *et al.*, *Green Investment Funds: Organic Farming*, (OECD, 1997).

88. Lipton, 'Project Financing and the Environment: Lender Liability for Environmental Damage in Australia', 11 *Journal of International Banking Law* 1 (1996), 7; M.H. Ogilvie, 'Enter at Your Own Risk: Environmental Lender Liability in Canada', 40 *Journal of Business Law* (1996), 94.

contaminated site remediation.⁸⁹ According to a survey by the American Bankers' Association, 62 per cent of community commercial banks had rejected loan applications or potential borrowers because of the possibility of environmental liability and 45 per cent had withdrawn from lending in known hazardous sectors because of similar concerns.⁹⁰ The US experience has been followed with interest in Europe, where the European Commission released in early 2002 a draft environmental liability directive.⁹¹ The Commission's proposals avoids specifically attaching liability to financial sponsors but leaves open the possibility of lender liability where banks exercise operational control over polluting facilities or sites.

More research is needed into the optimal liability regime – one that provides appropriate incentives for banks to eschew funding environmentally contentious developments without stifling potentially socially valuable investments. For instance, whilst the retroactive nature of some environmental liability regimes may further environmental compensation goals, there is little deterrence effect from the penalizing of organizations for unforeseeable, non-negligent contamination caused by distant activities, except to the extent that actors predict future changes in liability regimes that would provide for such retroactive liability.⁹² This situation can be compounded by joint and several liability. The latter is a mechanism for mutual regulation, encouraging each party to contract only with other reputable parties and creating strong incentives for parties to monitor one another's behaviour.⁹³ Joint and several liability rules are at odds with the polluter pays principle in that they encourage the channelling of liability to the deepest pockets, namely financial lenders, rather than the actual contributor of environmental harm.⁹⁴ Although there is a need for further empirical evidence to clarify the matters, it appears that joint and several liability can cause 'over-deterrence' by deep pocket parties and 'under-deterrence' by less solvent parties who may believe that no claims will be brought against them for environmental harm.⁹⁵ Joint and several liability can

89. Berz, 'Lender Liability under CERCLA: In Search of a New Deep Pocket', 108 *Banking Law Journal* 1 (1991), 4; J. Norton, 'Lender Liability in the United States', in R. Cranston (ed.), *Banks, Liability and Risk*, (Lloyd's of London Press, 1995), 358-59.
90. Cited in P. Blackman, 'Part II of the Environment Act and the amendments to the Environmental Protection Act 1990', (IBC conference on the Environment Act, 1995). Following extensive lobbying by banks, in 1996 the US Congress amended CERCLA to reduce lenders' exposure to environmental liabilities: see Asset Conservation, Lender Liability and Deposit Insurance Protection Act of 1996 (HR 3610, Title II, Subtitle E, §§ 2501-04).
91. EC, *Proposal for a Directive on Environmental Liability with regard to the Prevention and Restoration of Environmental Damage*, COM(2002) 17 final, 23 January 2002.
92. Lyons, 'Deep Pockets and CERCLA: Should Superfund Liability Be Abolished?', 6 *Stanford Environmental Law Journal* (1986), 271 at 301.
93. Teubner, 'The Invisible Cupola: From Causal to Collective Attribution in Ecological Liability', 16 *Cardozo Law Review* 2 (1994), 429 at 430.
94. Tietenberg, 'Indivisible Toxic Torts: The Economics of Joint and Several Liability', 65 *Land Economics* 4 (1989), 305.
95. Gergen, 'The Failed Promise of the "Polluter Pays" Principle: An Economic Analysis of Landowner Liability for Hazardous Waste', 69 *New York University Law Review* (1994), 624 at 674. For recent

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also pose problems to the functioning of insurance markets, as discussed later in this article.⁹⁶ Allowing deep pocket parties to recover contributions from joint tortfeasors generates additional transaction costs and is of little value if the joint tortfeasors are insolvent. Current economic theory suggests partial lender liability for borrowers' environmental harms is appropriate.⁹⁷

§ 4. Insurance Markets

A. ENVIRONMENTAL ISSUES IN INSURANCE

The insurance sector is relevant to the environment both as a source of investment funds, because of the premium income invested in the equity, property and bond markets, and, secondly, through pollution and natural disaster risk assessment and compensation. Insurance policies have traditionally been portrayed as benefiting society through the indemnification for unexpected loss, the restoration of resources for productive purposes and reduced uncertainty through the pooling of many policies.⁹⁸ The insurance sector can facilitate sustainable development through its ability to price various environmental risks and to help pay for environmental damage (particularly where the liable party has insufficient resources). The environmental performance of prospective policy-holders can thus be reflected through the availability of insurance and the cost of premiums.⁹⁹ Where suspect environmental performers are excluded from insurance or pay higher premiums, the insurance market should provide incentives for improved corporate conduct.

Like banks that are becoming sensitive to the environmental performance of their borrowers, insurers also are increasingly interested in the environmental aspects of their policy-holders' activities. At an international level, UNEP issued in 1995 a *Statement of Environmental Commitment by the Insurance Industry* that provides a framework for signatories to meet at annual round table meetings to discuss mutual concerns.¹⁰⁰ An escalation of claims associated with natural disasters and contaminated site clean-ups since the 1970s in the US and EU has driven the insurance industry to scrutinize their policy-holders according to standards often well beyond government regulatory requirements. Yet, examples of good practice among insurers are often out-weighted by

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litigation in a US context, see MacAyeal, 'The Comprehensive Environmental Response, Compensation, and Liability Act: The Correct Paradigm of Strict Liability and the Problem of Individual Causation', 18 *U.C.L.A. Journal of Environmental Law and Policy* (2000/01), 217.

96. L. Bergkamp, *Liability and Environment*, (Kluwer Law, 2001).

97. Pitchford, 'How Liable Should a Lender Be? The Case of Judgement-proof Firms and Environmental Risk', 85 *American Economic Review* 5 (1995), 1171.

98. See K.S. Abraham, *Environmental Liability Insurance Law*, (Prentice-Hall, 1991).

99. See Kunreuther and Freeman, 'Insurability, Environmental Risks and the Law', in A. Heyes (ed.), *The Law and Economics of the Environment*, (Edward Elgar, 2001).

100. Joly, 'UNEP Insurance Industry Initiative on the Environment: Developments in 1996', 2 *International Journal of Insurance Law* (1997), 171.

behaviour to the contrary, such as abrupt exits from the environmental insurance market altogether for fear of poor returns.

Pollution insurance products arose from the enactment or proposal by governments of liability rules to govern the financing and remediation of contaminated land. A variety of insurance products are available to cover pollution. The two main forms of third party liability insurance are, firstly, Public and Products Liability, which indemnify the insured against liability for environmental pollution when the cause is a *sudden and unexpected* event, and, secondly, specialist Environmental Impairment Liability insurance, which covers *gradual* environmental pollution.¹⁰¹ Public liability policies are the mainstay of the property and casualty insurance market, and they aim to provide insurance against a party's potential legal liability to a third party. Insuring against pollution became a concern first in the US, which experienced during the 1970s an explosion of environmental claims related to asbestos and other toxic materials once habitually used in US industry.¹⁰² European insurance firms also began reviewing their insurance products for local environmental hazards in the light of strengthening liability standards for cleanup of contaminated land.¹⁰³ Lately, the insurance industry has also become anxious about environmental problems associated with global warming.¹⁰⁴ Climate change may undermine the basis for evaluating risk and could significantly increase losses from meteorological disturbances and other natural calamities. Such scenarios have led the insurance industry to lobby negotiators of climate change treaty rules and collaborate with public authorities on research and preventative measures.¹⁰⁵

In many instances, without governmental intervention, insurance markets may not realize their full potential as an environmental governance tool. A well-known issue is the 'moral hazard' dilemma, whereby the availability of insurance policies may increase the tendency for losses to occur through irresponsible and negligent behaviour. This can occur where insurance premiums are not calibrated to reflect differences in carefulness. If insurance is available but not accurately priced (or without adequate terms), it can undermine the deterrence effect of liability as, once a firm has obtained insurance, there is less impetus to take further risk reduction measures.¹⁰⁶ Controlling moral hazard in an environmental context requires that insurers have the resources and information to effectively monitor policy-holders' safety practices. Government regulation to require

101. W. Pfennigstorf (ed.), *Pollution Insurance: International Survey of Coverages and Exclusions*, (Martinus Nijhoff, 1993).

102. Sayler and Cole, 'The Mother of All Battles: The Dispute over Insurance Coverage for Environmental Contamination in the U.S.', 1 *Environmental Liability* 2 (1993), 29.

103. Layard, 'Insuring Pollution in the U.K.', 4 *Environmental Liability* 1 (1996), 17.

104. Tucker, 'Climate Change and the Insurance Industry: The Cost of Increased Risk and the Impetus for Action', 22 *Ecological Economics* 5 (1997), 85.

105. Nutter, 'Global Climate Change: Why U.S. Insurers Care', 42 *Climatic Change* 1 (1999), 45.

106. Rose-Ackerman, 'Public Law versus Private Law in Environmental Regulation: European Union Proposals in the Light of United States Experience', 4 *Review of European Community & International Environmental Law* 4 (1995), 312 at 313.

corporate environmental disclosure and reporting is a useful measure to assist insurers in this respect. However, if the control of moral hazard and the appropriate risk differentiation function optimally, insurance theory predicts that effective prevention of environmental harms is achievable without governmental intervention.

Another issue requiring government attention is applicable liability standards. In the US, many insurers were so severely hurt by the liability explosion that they simply withdrew from the pollution insurance market.¹⁰⁷ As with banking finance, the presence of retroactive, and joint and several liability rules, has caused insurance markets to unravel. Abraham sees retroactive liability as problematic because the introduction of unanticipated liability necessarily undermines insurers' faith in their ability to predict legal regimes, and it makes it extremely difficult to assess risks accurately.¹⁰⁸ If, however, insurers can foresee the possibility of changes in the liability system that would create liability for historical pollution, in theory this could be accommodated through an additional risk premium to address the 'insurer ambiguity'.¹⁰⁹ In regard to joint and several liability rules, whilst they advance the compensation function of environmental policy, they can undermine underwriting decisions since any claim has the potential to attain the policy limit ceiling regardless of the fault or contribution by the insured.¹¹⁰ Joint and several liability generates additional uncertainty because the likelihood of liability 'is affected by the behavior of nonpolicy-holders whom the insurer cannot necessarily identify in advance'.¹¹¹

Due to liability pressures, and uncertainties owing to changing judicial rulings on applicable standards, all public liability policies in the US now have far-reaching pollution exclusions leaving Environmental Impairment Liability (EIL) insurance as the only instrument available. Because of its high costs, limited scope and strict environmental auditing requirements, the EIL market in the US and elsewhere has been weak until recently.¹¹² According to Freeman and Kunreuther, the underlying problem is that most environmental risks cannot be effectively quantified to set premiums for individual companies or industries.¹¹³ Insurers need to be able to factor environmental risk into credit risk assessments and to analyze such risks in pure financial terms.

107. McDonald, 'Financial Responsibility Requirements: Liability Insurance as an Environmental Management Tool', 4 *Environmental Liability* 1 (1996), 2 at 5.
108. Abraham, 'Environmental Liability and the Limits of Insurance', 88 *Columbia Law Review* (1988), 942 at 957-58.
109. Kunreuther, Hogarth and Meszaros, 'Insurer Ambiguity and Market Failure', 7 *Journal of Risk & Uncertainty* 1 (1993), 71.
110. Kehne, 'Encouraging Safety through Insurance-Based Incentives: Financial Responsibility for Hazardous Wastes', 96 *Yale Law Journal* 2 (1986), 403 at 419.
111. Abraham, 88 *Columbia Law Review* (1988), 942 at 959.
112. McIlwaine, 'EIL Coverage Gamble', 27 *Insurance Advocate* 2 (1993), 39. On recent improvements in the EIL market, see Catanese, 'A New Era in Pollution Coverage', 31 *Waste Age* 4 (2001), 68.
113. Freeman and Kunreuther, 'The Role of Insurance and the Well Specified Standards in Dealing With Environmental Risks', 17 *Risk Management & Decision Economics* 3 (1996), 517 at 530.

Methods currently used for calculating insurance premiums face problems addressing the situation of smaller firms that may lack a credible statistical profile of past loss experience.¹¹⁴ To promote shared environmental responsibilities with insurers, governments need to set well-specified legal standards to provide the predictability the industry needs so that it can calculate risks in terms of it. Stable liability rules can also help reduce the high transaction costs and diversion of resources into insurance litigation rather than pollution clean-up.¹¹⁵ Besides defining environmental liabilities, governments could demand insurance as a condition of licencing, especially for activities posing major environmental risks.

Apart from trends in the EIL market, there is also an international trend in environmental insurance to move away from liability insurance toward first party environmental damage insurance, since risk differentiation and monitoring are easier under a first-party insurance option. The advantages of first-party insurance are that the insured victim can arrange insurance protection that perfectly matches their desired extent of insurance coverage. Because insurers can more readily obtain information regarding victims' risk profiles and monitor their risk exposure, insurers are able to achieve better risk differentiation and so control the problem of adverse selection.¹¹⁶ On the other hand, first-party insurance suffers from the drawback that many environmental accidents involve damage to biodiversity and other ecosystem components for which there may be no individual harmed party able or willing to assert losses.¹¹⁷

B. REGULATING ENVIRONMENTAL INSURANCE

A mandatory financial responsibility requirement utilizing performance bonds or insurance is one option to the constraints of current approaches to environmental insurance. The primary reason why environmental liability insurance should be compulsory is because businesses protected by limited corporate liability may be inclined to underinsure for the environmental risks they generate. According to Shavell, 'insuring against liability that one would not otherwise fully bear, because one's assets would be exhausted, is in a sense a private waste for a potentially judgment-proof party'.¹¹⁸ Making insurance mandatory for certain hazardous industries requires that insurers have the ability to effectively monitor policy-holders so as to avoid exposure to

114. McDonald, 4 *Environmental Liability* 1 (1996), 2 at 2.

115. Tanega, 'Implications of Environmental Liability on the Insurance Industry', 8 *Journal of Environmental Law* 1 (1996), 115 at 132-33.

116. M.G. Faure and D. Grimeaud, *Financial Assurance Issues of Environmental Liability*, (Maastricht University, 2000), 172.

117. Leiter, 'Environmental Insurance: Does it Defy the Rules?', 25 *Harvard Environmental Law Review* 1 (2001), 259 at 313.

118. S. Shavell, *Economic Analysis of Accident Law*, (Harvard University Press, 1987), 10.

moral hazard.¹¹⁹ There is evidence that company adherence to international environmental standards (e.g., ISO or EMAS) can provide insurers with a convenient proxy for measuring environmental safety.¹²⁰ Some insurers are acknowledging firms' accreditation to corporate environmental management systems when underwriting and determining coverage.¹²¹ Arguments that insurers lack the financial resources to meet extensive environmental claims possible under mandatory regimes may also not be convincing given the possibilities to tap into the gargantuan resources of the capital markets through catastrophe bonds and similar financial instruments devised to cover large environmental risks.¹²²

In many jurisdictions, the issue of a licence to handle hazardous substances is now conditional upon the licensee demonstrating that it has sufficient funds to pay for any pollution mishap. Proof of financial responsibility may entail a performance bond lodged with the regulatory agency, pollution liability insurance or a bank guarantee. Mandatory financial responsibility provides a way of overcoming the problems experienced in the US and UK where there has been a collision between bankruptcy law and environmental law, as creditors to insolvent firms seek discharge of outstanding environmental liabilities to enable their claims to be met first.¹²³ If the firm is allowed to discharge or abandon this liability in bankruptcy proceedings, as has happened previously in Canada for instance, the clean up costs will be borne by government and thus society.¹²⁴

Compulsory insurance offers several advantages over other fiscal options to ensure funds to cover environmental degradation.¹²⁵ The problem of adverse selection in insurance markets (whereby insurers are burdened disproportionately with the riskiest businesses) can be minimized through mandatory insurance given that both high- and low-risk firms must be insured (although with individual premiums). Companies may also prefer the insurance option to other financial responsibility choices because it frees up company funds for other purposes that might not be available where bonds and other

119. See Jost, 'Limited Liability and the Requirement to Purchase Insurance', 16 *International Review of Law and Economics* 2 (1996), 259.

120. Furrer and Hugenschmidt, 'Financial Services and ISO 14001', 28 *Greener Management International* 1 (1999), 32.

121. Rafferty, 'Participants in Responsible Care Offered an Insurance Discount', 105 *Chemical Engineering* 2 (1998), 48.

122. Jaffee and Russell, 'Catastrophe Insurance: Capital Markets and Uninsurable Risks', 64 *Journal of Risk & Insurance* 2 (1997), 205.

123. See, e.g., the UK cases: *Official Receiver as Liquidator of Celtic Extraction Ltd and Bluestone Chemicals v Environment Agency* (1999) 2 BCLC 555; *Environment Agency v Clark (Administrator of Rhondda Waste Disposal Ltd)*, Court of Appeal, 10 February 2000.

124. Marin and Ilchenko, 'Priority of Remediation Costs and Limitation of Environmental Liabilities – Bankruptcy and Insolvency Act And Companies' Creditors Arrangement Act', 15 *National Insolvency Review* 75 (1998), 17.

125. Richardson, 'Mandating Environmental Liability Insurance', 12 *Duke Environmental Law and Policy Forum* 2 (2002), 293.

indemnities are availed.¹²⁶ The resulting larger pool from which payments may be made could also in time reduce the cost of such insurance. Thirdly, enterprises considered by insurers as too risky for cover could be compelled by financial responsibility stipulations either to adopt appropriate safety measures or suspend operations. Should insurance be unavailable, however, firms wishing to continue operations would be compelled to appeal for government intervention in the form of a waiver of financial responsibility requirements or provision of its own insurance.

Thus, introduction of mandatory insurance would alter the nature of the relationship between insurer and insured, making insurers in some respects surrogate environmental regulators. Under mandatory insurance, 'the insurer would become, in effect, a watchdog over its customers rather than a service provider'.¹²⁷ This governance function, or what Monti refers to as an 'environmental police man', has made some nervous about the compulsory insurance model, particularly where environmental insurance markets are undeveloped.¹²⁸ Certainly, with a mandatory insurance model, insurers would check that policy-holders are properly licenced, and coverage would likely be conditional upon the insured's compliance with permit conditions. But as optimal care could be higher than mere regulatory compliance, insurers need means to promote superior levels of safety, such as offering premium discounts for subscription to relevant third-party environmental management systems that provide for systematic auditing and reporting of clients' environmental performance. Mandatory insurance would also dramatically enhance insurers' involvement in the assessment and management of their policy-holders' risks. Access to comprehensive information to assess corporate environmental performance is fundamental if insurers are to be effective risk managers. Given such information, insurers can then reflect various risks through premium differentiation.¹²⁹ But unlike voluntary insurance situations where future coverage can be denied, the cooperation of the insured cannot be assured under a compulsory liability insurance model.

These are not the only reasons why compulsory environmental insurance requires greater government supervision of the terms and conditions of insurance products. For example, competitive pressures that encourage reduced coverage and reduced premium fees could emasculate the regulatory effectiveness of compulsory insurance regimes in the absence of corrective government intervention. This already occurs in the mass

126. List, 'Insuring the Spill', 149 *Global Finance* 9 (2000), 55 at 56.

127. P. Freeman and H. Kunreuther, *Managing Environmental Risk through Insurance*, (Kluwer, 1997), 102.

128. Monti, 'Environmental Risk: A Comparative Law and Economics Approach to Liability and Insurance', 9 *European Review of Private Law* 1 (2001), 51.

129. Kunzman, 'The Insurer as Surrogate Regulator of the Hazardous Waste Industry: Solution or Perversion', 20 *Forum* (1985), 469 at 477.

motor vehicle insurance markets.¹³⁰ Not only would insureds tend to seek the cheapest insurance policies that enable them to meet financial responsibility obligations, but insurers, competing for business, would also tend to offer the minimum coverage allowable to reduce costly claims.¹³¹ As compulsory liability insurance is primarily for the benefit of the injured third-party, the shift to a mandatory insurance system requires insurance regulators to control market-produced exclusions and exceptions that could undermine policy goals.

Compulsory environmental insurance is not presently adopted in most countries, although other options for demonstrating financial responsibility widely exist. The EC's draft environmental liability directive does not mandate insurance, but obliges states to 'encourage' companies to use insurance or some other form of financial security.¹³² The Commission's earlier White Paper suggested that development of a mandatory insurance regime depended on improved 'qualitative and reliable quantitative criteria for recognition and measurement of environmental damage'.¹³³ There is already provision for mandatory environmental insurance in the 1993 Council of Europe Convention on Civil Liability for Damage Resulting from Activities Dangerous to the Environment.¹³⁴ Nationally, the Danish Contaminated Soil Act 1999 obliges owners of large oil tanks to purchase insurance against potential oil contamination liability costs. Both Sweden (Environmental Code, 1999) and Finland (Environmental Damages Act, 1999) have pollution cleanup funds, financed by compulsory insurance payments for high-risk operations, to fund the restoration of orphaned sites and compensate personal and property damage where the liable party is unknown or insolvent. These schemes, however, are more akin to an environmental levy than an insurance premium. That the Scandinavian countries have undertaken such reforms ahead of other countries perhaps reflects their relatively long tradition of using environmental taxes and other economic instruments as a means of environmental policy.¹³⁵

Until the conditions for mandatory environmental insurance exist, governments should give industry the flexibility to meet financial responsibility through non-insurance options, as well as tolerate mutual insurance pools as a way of demonstrating solvency. Advanced insurance pools already exist in specific industry sectors, notably the oil shipping industry¹³⁶ and nuclear power,¹³⁷ by which polluters collectively organize

130. Mangan, 'Acts of God Make People Ask the Strangest Questions', 112 *Insurance Advocate* 35 (2001), 12.

131. LoPucki, 'The Death of Liability', 106 *Yale Law Journal* (1996), 7 at 80.

132. EC, *Proposal for a Directive on Environmental Liability*, article 16.

133. EC, *White Paper on Environmental Liability*, COM(2000), 24.

134. E.T.S. 150; 32 I.L.M. 1228 (1993), article 12.

135. P. Christensen (ed.), *Governing the Environment: Politics, Policy and Organization in the Nordic Countries*, (Nordic Council, 1996).

136. Hughes, 'Safety at Sea', 44 *Risk Management* 5 (1997), 45.

137. OECD, *Nuclear Power in Competitive Electricity Markets*, (OECD, 2000), 32.

coverage through discrete 'risk retention groups' that function like mutual insurers.¹³⁸ Mutual insurance pools are likely to be most advantageous when commercial insurers are confronted with major new risks for which they lack sufficient experience to evaluate the technical aspect of the risk and when the evolution of such risks is uncertain both technologically and in terms of liability law. In such circumstances, grouping an entire market within a pool for a period gives time for devising a suitable product and assembling the capacity required.¹³⁹

§ 5. Reforms for Improving the Broader Context of Financial Markets

Some reforms to the context in which financial institutions operate are arguably necessary if an effective reorientation of investment and lending patterns towards sustainable development is to be achieved. Investors and lenders would appear to need much stronger financial incentives, clearer environmental information and means of leverage in corporate affairs.

As a priority, governments should introduce a wider array of economic instruments, notably pollution taxes and tradeable emission permits, so that the financial costs or benefits of corporate environmental behaviour are made more transparent and relevant to the calculations of private financiers.¹⁴⁰ Asset prices need to reflect environmental performance if environmental financing is to have an objective basis. Economic instruments should also be applied directly to environmental friendly investments to create tax advantages for such practices. The success of the Dutch tax incentives in promoting investment in environmental businesses has already been noted. Eco-taxes directly affect company balance sheets, and financial institutions should support polluter pay charges since as low-energy users they would not be heavily penalized by new charges. With tradeable permits, companies that are able to generate cost savings through trade in pollution permits could become more attractive investment opportunities for financial organizations. Creating new markets for environmental goods could significantly augment ethical financing. The UK government's recent Climate Change Levy and Emissions Trading Scheme are in this respect welcome initiatives, but more extensive use of economic instruments as a means of environmental policy is lacking in many countries.¹⁴¹ Until equity and debt prices

138. Baurkot, 'Into the Pool', 98 *Best's Review: Property-Casualty Insurance Edition* 12 (1998), 47.

139. Faure and Grimeaud, *Financial Assurance Issues of Environmental Liability*, 196.

140. On economic instruments, see Tietenberg, 'Economic Instruments for Environmental Regulation', 6 *Oxford Review of Economic Policy* 1 (1990), 17; Gunningham and Grabosky, *Smart Regulation*, 69-82; Stewart, 'Economic Incentives for Environmental Protection', in R.L. Revesz *et al.* (eds.), *Environmental Law, the Economy and Sustainable Development*, (Cambridge University Press, 2000), 171.

141. Richardson and Chanwai, 'Taxing and Trading in Corporate Energy Activities: Pioneering UK Reforms to Address Climate Change', 14 *International Company and Commercial Law Review* 1 (2003), 18.

reflect environmental performance, ethical investment and lending will remain somewhat arbitrary in determining which businesses are favoured or rejected.

A second area for reform should be imposition of corporate environmental reporting obligations so as to help generate reliable and comprehensive information regarding corporate environmental performance for investors and insurers. Reliable information is crucial to the proper functioning of capital markets, improving accurate pricing of securities and so enabling the market to allocate capital efficiently.¹⁴² Without material information, investment and insurance decisions are likely to be distorted. Disclosure of environmental information can help inform consumers and investors about a firm's level of resource use, emissions and other environmental impacts. Not only does such information feed the ethical concerns of investors, but it also affects the market value of an enterprise by disclosing liabilities and other factors that affect earnings and profitability. Better environmental information is also crucial for insurers if they are to assess and monitor environmental risks and price premiums accordingly.

Extending requirements for disclosure of environmental costs under securities laws and other company-directed law can facilitate investors' and other stakeholders' scrutiny of the environmental behaviour of firms. Traditional corporate reporting statements have not adequately captured the financial consequences of a company's environmental management. Corporate accounting has been associated with myopic, profit-centred performance measurement.¹⁴³ However, disclosure is a central tenet of emerging voluntary standards such as the CERES Principles and the ISO 14000 series.¹⁴⁴ In Europe, recently the EC published a *Communication on Corporate Social Responsibility*, which refers to the desirability of corporate environmental reporting standards.¹⁴⁵ Among EU states, mandatory environmental reporting has been instituted in various forms in France, the Netherlands, Sweden and Denmark,¹⁴⁶ and is planned for in the UK.¹⁴⁷ Only in the US are environmental reporting requirements well integrated into mainstream company law through regulations promulgated by the federal Securities and Exchange Commission (SEC).¹⁴⁸ One reason why the SEC (set up in the 1930s) has gone further in corporate disclosure requirements than other jurisdictions is because US policy-makers have long traced the causes of the Great Depression to the failure to establish adequate regulations to ensure investors and other stakeholders have adequate

142. Baskin and Miranti, Jr., *A History of Corporate Finance*, (Cambridge University Press, 1997), 322.

143. See D. Owen (ed.), *Green Reporting: Accountancy and the Challenge of the Nineties*, (Chapman & Hall, 1992).

144. T. Tibor and I. Feldman, *ISO 14000: A Guide to the New Environmental Management Systems*, (Irwin, 1995).

145. EC, *Communication from the Commission concerning Corporate Social Responsibility: A Business Contribution to Sustainable Development*, COM(2002) 347 final (July 2002), 14-15.

146. KPMG, *International Survey of Environmental Reporting*, (KPMG, 1999), 8.

147. Department of Trade and Industry (DTI), *Modernising Company Law*, Cm. 5553 (DTI, 2002), cls 4.13.

148. See Williams, 'The Securities and Exchange Commission and Corporate Social Transparency', 112 *Harvard Law Review* (1999), 1197.

information regarding corporate performance. Environmental reporting requirements are most likely to succeed when regulators provide detailed guidance on reporting criteria and ensure that reports reflect an enterprise's full range of operations, including relationships with subsidiaries and franchisees that may otherwise be exploited by the parent company to disguise its overall environmental impacts.

Thirdly, reforms should be made to systems of corporate governance to enable or direct investee shareholders to be more active in corporate decision-making. Most EU ethical funds use a screening approach, which tends to reduce their influence on corporate environmental practice. As Miller suggests, 'the main arguments against [ethical investment] are that: one cannot hope to change the ways of a major institution simply by buying or selling its shares'.¹⁴⁹ Shareholder proposals sponsored by institutional investors are a key means by which institutions can influence company policy.¹⁵⁰ In some jurisdictions, significant barriers to shareholder activism persist, such as investor portfolio diversification obligations and proxy context rules. The Enron scandal has highlighted the potential huge damage that malfunctioning corporate governance can inflict on pension savings. Various reforms are possible, although the subject raises thorny economic and political concerns to overcome. In theory, financial regulators could require investment institutions to register their share votes, so as to encourage institutions to formulate and express a view on all issues put to a vote at shareholder meetings. Another possibility is the appointment of minority independent directors to corporate boards, nominated by institutional investor groups rather than enterprise management. Beyond measures to stimulate accountability and shareholder involvement, there is the persistent question of whether corporate liability should be broadened, so as to discourage environmentally risky activities.¹⁵¹ Thus, in principle, imposing liability on institutional shareholding investors for the environmental impacts of their portfolio companies could promote environmentally-responsible investment because of the lower liability risks offered by green companies.

The UK government, for instance, has proposed legislation imposing a fiduciary duty on pension funds to watch over the companies they have invested in, following findings of a government inquiry of a 'culture of non-intervention' among UK institutional investors.¹⁵² But how this requirement would be reconciled with the EU's conservative UCITS Directive is unclear, which stipulates that an investment entity may not acquire shares carrying voting rights that would enable it to exercise significant influence over

149. A. Miller, *Socially Responsible Investment: The Financial Impact of Screened Investment in the 1990s*, (Financial Times Business Information, 1991), 7.

150. See Del Guercio and Hawkins, 'The Motivation and Impact of Pension Fund Activism', 52 *Journal of Financial Economics* 3 (1999), 293.

151. On this debate, see Easterbrook and Fischel, 'Limited Liability and the Corporation', 52 *University of Chicago Law Review* (1985), 89.

152. UK, Department of Work and Pensions (DWP), *Encouraging Shareholder Activism: A Consultation Document*, (DWP, 2002), 8.

the management of the investee company.¹⁵³ Although a limited obligation to ‘watch over’ investee companies would appear to have merit, amplifying this to full shareholder liability would be politically contentious and would create major economic disincentives to new investment.¹⁵⁴ But for the banking sector, as earlier noted, it is feasible to legislate for some level of lender liability for borrowers’ environmental harms given that banks generally have a superior capacity to monitor clients’ projects.

§ 6. Conclusions

This article has argued that because of their gate-keeping role within the economy, financial organizations could be able to act as instruments of environmental governance. It has also highlighted differences in the roles of banks, investors and insurers in this respect. Between banks and investors, banks providing debt finance have greatest leverage over small, private companies, whereas the presence of institutional investors occurs mainly in the capital financing markets for public companies. Whereas the banking and investment sectors have roles principally in the initial establishment of development projects, and the establishment and expansion of companies, the insurance industry provides additional environmental oversight in the subsequent operational phase of projects and businesses. Unlike institutional investors or banks that tend to be more effective in supervising a company’s overall performance, insurance usually focuses on specific developments or activities. However, liberalization of financial markets in recent years is blurring these institutional differences as single financial entities undertake an array of investment, lending and insurance functions.

But throughout the financial services sector in various countries, there will be a need for government intervention in some cases to maximize the environmental governance potential of financial markets. This intervention may be of a more direct, ‘command’ style where liability rules and mandatory insurance are required, for instance. In other contexts, where an appropriate response from financial institutions seems more dependent upon the right fiscal incentives and environmental information, then less invasive instruments should be used. In both cases, however, the role of the state is to conscript the financial services sector as an instrument for promoting improved corporate environmental performance. In essence, the future of effective environmental law resides not only in governments continuing to direct and influence corporations to meet desired environmental standards. It also requires governments to influence those that financially sponsor corporate activity to use their economic influence to encourage corporations to behave in a more environmentally responsible manner. By manipulating the rules, incentives and information that shape decision-making in financial markets,

153. UCITS Directive, article 25.

154. Easterbrook and Fischel, 52 *University of Chicago Law Review* (1985), 89.

governments will in effect make banks, investors and insurers part of the web of environmental governance.

Whilst such reforms may seem politically naive, the exponential rise in the gravity of our environmental predicament combined with the potential financial advantages from favouring environmentally responsible financing, should in due course improve the prospects for a new style of environmental law. There are, however, a number of specific factors that would appear to be necessary or important for improving the prospects for reform. Mature financial markets and the presence of rigorous financial regulatory structures that address problems of information disclosure and risk management are crucial conditions, for they provide a framework onto which environmental concerns (e.g., pollution liabilities) can be effectively grafted. Secondly, the presence of specialist financial institutions attempting to cater to niche markets (e.g., ethical investment funds) can provide a platform of experience and knowledge to feed more mainstream changes in this sector. The most advanced reforms have tended to occur in countries with a history of such specialist institutions. Thirdly, the performance of traditional environmental law systems is important; countries with a long history of environmental regulation with well-developed systems, such as the US and Netherlands, are more likely to be aware of the pitfalls and limitations of current approaches and the concomitant need to explore new styles of governance in order to promote sustainability.