

Review of Environmental Risk Management at Banking Institutions and Potential Relevance of ISO 14000

Working Paper

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RTI Project Number 5774-4

April 1997

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In recent years, potential environmental liability has had a growing influence in the banking industry. Many banking institutions have adopted environmental risk management programs through the assistance, guidance, and/or requirements provided by various organizations. However, while environmental factors are growing in importance, the systematic use of environmental information throughout the banking industry is still not widespread. One possible cause of this is the lack of widely available, accurate, and comparable information that can be used by the banking industry.

Starting in 1996, and continuing over several years, the International Organization for Standardization (ISO) will issue a series of comprehensive guidelines for incorporating environmental protection and pollution prevention objectives into industrial activity worldwide, known collectively as ISO 14000 (International Organization for Standardization, 1996). The main thrust of this research effort under the cooperative agreement between Research Triangle Institute and the U.S. Environmental Protection Agency is determining whether ISO 14000 will provide the impetus for the banking industry to expand the use of environmental information in their credit extension and investment decisions. To address this question, an assessment of current banking industry practices in the use of environmental information for risk management and of how the use of this information potentially relates to ISO 14000 is warranted.

With this purpose in mind, this working paper

- outlines key reasons that banks manage environmental risks,
- discusses the steps banks are presently taking to promote environmental risk management in their debt and equity transactions, and
- places current environmental risk management practices in the context of likely information evolving from ISO 14000.

An important objective of this summary is to establish the focus of the remainder of the research study.

1. BACKGROUND

The banking industry (commercial and investment) in the United States is in the business of providing financial capital to the business community, or advising clients to do the same. Banks do this with

the expectation of achieving targeted rates of returns on these extensions of credit or investments (stocks or bonds) over a period of time, and eventually reclaiming their principle. Any individual extension of credit or investment carries with it the risk of non-repayment (credit extension) or a reduction in value (direct investments), under the terms of the financial relationship between the financier and the corporate entity. Given this fact, banks have a strong vested interest in performing extensive due diligence, prior to committing funds, and on an ongoing basis to ensure and/or enhance value.

The environmental performance of current and potential debtors or invested companies raises a variety of potential risk and opportunities for banks. The United Nations Environment Program (UNEP) has identified several types of environmental risks facing the banking industry (Vaughan, 1996) as has Rutherford (1994). These environmental risks are classified in Table 1.

Table 1. Potential Environmental Risk for Banks

1. Liability from the banks' own operations.
 2. Commercial lending and credit extension (debt) risks
 - a. Reduced value of collateralized property
 - Cost of cleanup is capitalized into property value
 - Property transactions may be prohibited until cleanup occurs
 - b. Potential lender liability
 - Cleanup of contamination on collateralized property in which the bank takes an interest
 - Personal injuries
 - Property damages
 - c. Risk of loan default by debtors
 - Cash flow problems due to cleanup costs or other environmental liabilities
 - Reduced priority of repayment under bankruptcy
 3. Investment (equity) risks
 - Effect of environmental liabilities on value of companies in which investment banks or their clients own equity
 - Upstream liability if the bank is a principal or general partner or owner
-

First, banking activities themselves generate pollution, albeit on a small scale relative to manufacturing industries. Banks, like any other business are potentially liable for environmental damage that their operations cause. However, because banking operations are not highly pollution-intensive, pollution from their own operations is not the primary environmental concern of most banks. Their focus is on derived environmental liability through debt and equity transactions.

Poor environmental practices by banks' customers may reduce the value of collateralized property and/or increase the likelihood of fines or legal liability that reduce a debtor's ability to make payments to the bank. A company borrowing funds may incur a legal liability to clean up a contaminated site that literally bankrupts them. This both hinders a bank's ability to recoup the loaned funds and, if the contaminated site is part of property used to collateralize the loan, diminishes the value of the property intended to offset any default losses.

Even beyond the point of suffering losses on contamination of collateralized property, banks have in recent years occasionally been held directly liable for actions occurring on properties in which they held a secured interest. Most noteworthy are cases like the Fleet Factors case in 1990, where the bank (Fleet Factors Corporation) was held liable for environmental damages incurred in the foreclosure process by a firm they hired to auction off assets [U.S. v. Fleet Factors Corp., 901 F.2d 1550 (11th Cir. 1990), cert. denied, 111 S. Ct 752 (1991)].

Other notable cases where lenders were either held liable or their liability was challenged in court are highlighted by Schmidheiny and Zorraquin (1996) and Ellis, Millians, and Bodeau (1992). These include the Mirabile case of 1985, where Mellon Bank was deemed sufficiently involved in day-to-day operations of the contaminated property that they were ruled not exempt under the secured interest provisions of CERCLA. In the Maryland Bank and Trust (MBT) case of 1986, the court held that MBT was liable for site cleanup under Superfund because it held mortgage title for four years and was deemed to be "in a position to" uncover and resolve potential environmental problems at their secured properties. The opposite signal prevailed in the Bergsoe Metal Corp. case of 1991, wherein the courts ruled that the lender could not be held liable unless

actively participating in the management of the site. The confusion caused by contradicting court evidence, as cited here, led EPA to establish lender liability rules with the intent of clarifying liability conditions. The EPA lender liability rules will be discussed in more detail below.

For many of the reasons just discussed, environmental liabilities can also hinder a company's market value. Evidence of financial risk associated with poor environmental performance is provided by various studies that have found a positive correlation between environmental performance and financial performance (Hamilton, 1995; Hart, 1995; Blacconiere and Patten, 1993). Therefore, investment banks may need to consider environmental performance in deciding whether to invest in companies or advise clients to do so.

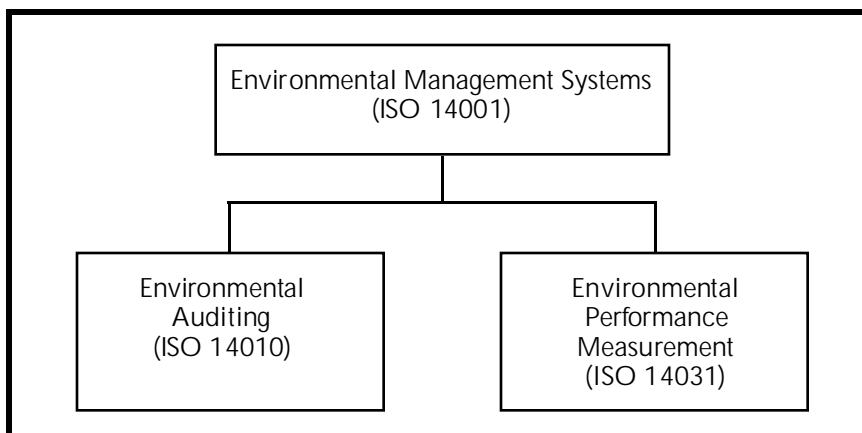
1.1 ISO 14000 and Potential Information on Environmental Factors

The ability to adjust banking credit and investment practices to reflect environmental factors may depend on banks' ability to obtain and use accurate and reliable environmental information. However, such information, if available, may be costly to obtain and difficult for the typical banker to interpret. If financiers were better able to gather and interpret information on key environmental factors underlying debt and equity transactions and if these factors materially affect the risk of these transactions, they should in theory be able to more efficiently manage their portfolios.

An opportunity for expanding the information base on the environmental performance of industrial entities may arise with the advent of ISO 14000. ISO 14000 is a series of voluntary compliance standards for environmental practices. This series of standards is being established by consensus across a broad consortium of governments, businesses, and standardization organizations throughout the world. It is slated to be the first set of standards ever established in consultation with the global manufacturing community.

There are two essential platforms to the ISO 14000 series, one relates to management and the other to products. The management platform is depicted in Figure 1. Our assertion is that the EMS standard (ISO 14001) is the focal point of potential banking industry

Figure 1. ISO 14000
Environmental
Management Platform



interest because it addresses actions that the customer can take to potentially reduce the effect of adverse environmental outcomes. The auditing and performance measurement standards play supporting roles. These standards specify, respectively, how environmental auditing and performance measurement should be performed to support an EMS. If ISO 14001 is to provide value to members of the financial services industry, they will need to feel assured that these other components are working as well.

ISO 14001 is an Environmental Management System standard that is structured to be applicable to virtually any industrial producer. It examines the following main categories of environmental management process: (1) establishment of an environmental policy, (2) environmental planning, (3) policy implementation and operation, (4) monitoring and corrective action programs, and (5) management review. It provides a basic structure for industrial firms to improve their environmental performance through the establishment of environmental goals, implementation of a plan for achieving those goals, monitoring progress, and corrective action.

ISO 14001 has been in development since the early 1990s, and has been created with consensus and support from many industrial entities throughout the developed world. However, the financial community (bankers, insurance firms, and fund managers) has been largely absent from the process and is relatively uninformed about the ISO 14000 series.

2. DEBT TRANSACTIONS AND ENVIRONMENTAL FACTORS

Banking transactions can be loosely divided into two types: debt and equity. The former relates to extension of credit to a second party and the latter relates to taking partial or total ownership of the second party. Of course, these can be intertwined as equity (e.g., foreclosure) may be a remedy for unpaid debt. In fact, as discussed below, this is one of the greatest forms of risk in debt transactions. Despite these interactions, the debt/equity distinction is a useful categorization of banking transactions for this study.

This section addresses, separately, typical considerations of environmental factors before and after funds are committed. This is followed by a discussion of the near term outlook for the use of environmental information in debt transactions and some anecdotal evidence to explain current and planned practices. The section concludes with broad prognostications about the likely effect of ISO 14001 on debt transactions.

2.1 Current Pre-Commitment Practices for Debt Transactions

This section addresses actions taken by banks to assess environmental factors in debt transactions prior to the funds being committed. This is distinguished from actions taken after funds are committed, which will be discussed separately below.

2.1.1 Guidelines, Standards, and Regulations to Help Lenders Limit their Environmental Liability

The adoption of several federal statutes has increased potential environmental liability for banking institutions. Probably the most influential of these statutes in increasing environmental liability is the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), often referred to as "Superfund," which was enacted in 1980. This act makes a wide assortment of owners, operators, and other parties liable for the costs associated with remediating contaminated property, including, possibly, banks and other financial institutions. The Resource Conservation and Recovery Act, Clean Water Act, the Clean Air Act, and the Toxic Substance Control Act are also viewed as a potentially significant contributor to the recent increase in environmental liability for banking institutions (FDIC, 1993).

Several organizations have provided guidance to banking institutions to help protect them from lender liability. These activities are often at the core of banks' environmental risk management actions. Federal regulatory agencies involved with these activities include the following:

- Office of Thrift Supervision (OTS),
- Federal Reserve (The Fed),
- Office of the Comptroller of Currency (OCC), and
- Federal Deposit Insurance Corporation (FDIC).

In addition, one standardization organization, American Society for Testing and Materials (ASTM), has played an important role in specifying how site assessments are to be performed. The contributions of each of these organizations are discussed below.

OTS Has Published Several Guidelines for Lending Institutions on Environmental Risk. As a result of the threat of environmental liability presented by regulations, such as CERCLA, OTS now offers guidance to ensure that banks protect themselves from environmental liabilities or losses due to environmentally impaired collateral. Guidelines published by OTS include the following:

- the 1989 issuance of Thrift Bulletin 16, which was entitled "Environmental Risk and Liability: Guidelines on Development of Protective Policies and Reporting";
- the 1991 issuance of "Environmental Assessment Requirements for Properties Securing Loans Insured by Fannie Mae"; and
- the 1994 issuance of "Environmental Hazards Management Procedures."

The Federal Reserve Has Published Guidelines on Environmental Liability for Banks. In 1991, the Federal Reserve issued environmental policy guidelines for banks under the Fed's authority. These guidelines were entitled "Environmental Liability" (Federal Reserve, 1991).

The OCC Has Issued Guidelines for Nationally Chartered Banks. The OCC issued guidelines for banks in 1992 recommending that nationally chartered banks protect themselves from environmental liability by not participating in the management of properties for which they had a secured interest. This publication was entitled "Banking Bulletin 92-38" (Ward, 1996).

The FDIC Has Drafted a Comprehensive Set of Guidelines for

Banks. FDIC guidelines are considered to be one of the most comprehensive of the group. The FDIC recommends that banking institutions evaluate the potential adverse effects of environmental contamination on the value of real property and the potential environmental liability associated with the real property (Ward, 1996). It also suggests tailoring the environmental management program to the type of lending an institution does and securing approval by the bank's Board of Directors. Furthermore, the lending institution should carefully follow the program's policies throughout the loan origination, renewal, refinancing, workout, and pre- and post-foreclosure stages. The FDIC will look unfavorably upon a lending institution's failure to comply with these guidelines, which recommend establishing and complying with an appropriate environmental management program, and will require corrective action (FDIC, 1993).

Preliminary environmental review. Before a loan is made pertaining to real property, the FDIC recommends conducting an initial environmental risk analysis (FDIC, 1993). This analysis consists of

- a questionnaire and disclosure statement to be completed by the customer;
- an appropriate database search to determine whether the site or adjacent sites are Superfund sites, state cleanup sites, or other known environmental problem sites; and
- a field survey (with photographs) performed by trained personnel (Ward, 1996).

Foreclosures and trust transactions. For situations in which title may be taken to real estate collateral by a lending institution due to foreclosures and trust transactions, the FDIC recommends that the bank evaluate the potential environmental costs and liabilities associated with taking title to the property (FDIC, 1993). Ward (1996) suggests that this evaluation may be achieved by conducting a Phase I Environmental Site Assessment and, in some cases, a Phase II Environmental Site Test. The Phase I Environmental Site Assessment generally involves, at a minimum, conforming with the ASTM standard, which is discussed below. On the other hand, an environmental services officer determines the scope of work for the Phase II Environmental Site Test on the basis of the site's environmental history and general locality. This phase may be

omitted in many circumstances, but it is generally performed for foreclosures of commercial or industrial property.

Loan documentation. The FDIC has made recommendations regarding the use of loan documentation to limit lender liability. For example, loan documentation may need to include appropriate representations, covenants, warranties, and/or a borrower indemnification of the bank against potential claims arising from environmental problems. Furthermore, the bank should reserve itself the right to inspect the property or to have an environmental audit performed through the life of the loan (FDIC, 1993).

ASTM Has Standards for Conducting Environmental Site Assessments for Commercial Real Estate. The ASTM (1993) has developed a standard for conducting an environmental site assessment for commercial real estate with respect to the range of contaminants within the scope of CERCLA. This standard was designed for property transfers rather than for the banking industry specifically. While it is not uniformly held in high regard by the banking industry because it fails to cover several issues desired by banks, such as regulatory requirements and compliance, a brief discussion of its scope and components is provided in this section to give a perspective on the information routinely used by banks to undertake due diligence in their lending.

An environmental site assessment is “the process by which a person or entity seeks to determine if a particular parcel of real property is subject to recognized environmental conditions,” where recognized environmental conditions refer to “the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, groundwater, or surface water of the property” (ASTM, 1993).

An environmental site assessment comprises the following four components:

- records review,
- site reconnaissance,

- interviews with current owners and occupants of the property and interviews with local government officials, and
- the report.

The purpose of the records review is to obtain and review records that will help identify recognized environmental conditions associated with the property. Site reconnaissance involves obtaining information that will indicate the likelihood of identifying recognized environmental conditions in connection with the property. Interviews, the third component of an environmental site assessment, serve the purpose of collecting information that will indicate recognized environmental conditions in connection with the property. The fourth component, the report, should include documentation to support the analysis, opinions, and conclusions found in the report.

2.1.2 EPA Lender Liability Rule

In 1992, EPA promulgated a lender liability rule (National Contingency Plan, 40 C.F.R. Part 300, subpart L), which clarified that lenders would be protected from environmental liabilities under CERCLA as long as they adhered to certain basic rules (Scranton, 1992). This rule was voided two years later because the courts determined it exceeded EPA's statutory authority [*Kelley vs EPA*, 15 F.3d 1100 (D.C. Cir. 1994)]. Nonetheless, a court case as recent as April 1996 was decided based on the lender liability guidance, as if it were still a formal regulation (Brown, 1996). Moreover, EPA's lender liability rule was essentially reinstated by legislation signed into law on September 30, 1996 as the "Asset Conservation, Lender Liability, and Deposit Insurance Protection Act of 1996" (in Title II, Subtitle E, Sections 2501-2505, P.L. 104-208).

The Lender Liability Rule defines lenders' liabilities relating to contamination involving vessels or facilities they finance. Whether a lender is liable is determined by the guidelines devised by EPA to distinguish between traditional lender actions (actions taken to protect a security interest) and acts of ownership, operation, or investment. The Lender Liability Rule states that participation in management normally involves either exercising decisionmaking control over the borrower's environmental compliance or disposal activities or exercising executive or operational control, as opposed to exercising control over financial or merely administrative matters.

Subsequent to the enactment of the original lender liability rule, requiring inspection or cleanup or otherwise being aware of contamination prior to closing a loan was not seen, by itself, as creating liability for the lender (Scranton, 1992). The new law applies the same liability standards (O'Brien, 1996). Lenders not exerting decision-making control of the firm during the term of the loan are excluded from CERCLA liability. Moreover, the action of foreclosure on a contaminated property is protected so long as the property is sold in a commercially reasonable manner. Such language is being viewed by some observers as instituting the "bright lines" for lender liability that banks had been seeking since the sometimes contradictory court rulings of the late-1980's and early 1990's (O'Brien, 1996).

2.2 Current Post-Commitment Practices for Debt Transactions

In the previous section, pre-commitment due diligence for debt transactions is shown to be used extensively throughout the industry, particularly for real estate collateralized loans. In theory, post-transaction monitoring has been identified as an important feature of the ideal environmental risk management program (Rutherford, 1994). However, one international survey of the banking industry conducted for the United Nations Environment Programme (discussed in more detail in the next section) suggests that much less attention typically is given to environmental issues after the financial institution actually committed funds: 46 percent of respondents never practiced any form of ongoing environmental monitoring of a loan (see Table 2). Moreover, anecdotal evidence (detailed below) suggests that most of the post-commitment monitoring is performed by non-U.S. banks.

Table 2. Monitoring Activities of Survey Respondents

Type of Transaction	Monitor More Often Than Yearly	Monitor Yearly	Monitor Less Often Than Yearly	Never Monitor
Loan	1%	27%	26%	46%
Investment	3%	19%	29%	49%

Source: Environment and Finance Research Enterprise. 1994. "Global Survey on Environmental Policies and Practices of the Financial Services Industry." p. 5.

Our review of the literature and discussions with environmental banking organizations confirmed the relative lack of post-transaction monitoring of debt for environmental factors in the U.S. One hypothesis is that the regulatory and legal burdens associated with real estate transactions and lender liability have tended to place most of U.S. bankers' emphasis on pre-commitment due diligence.

Our review did unveil one detailed example of post-loan monitoring as part of a bank's environmental risk management system, although this was for a non-U.S. bank, Canadian Imperial Bank of Commerce (CIBC). A brief discussion of that case study is included in the following section.

2.3 Surveys and Anecdotal Evidence

Many banking institutions have adopted environmental risk management programs, some only recently. The implementation of these programs is verified by surveys conducted on the topic and by company reports. This section provides a detailed discussion of selected survey results, an example of one bank's environmental risk management program, and other supportive anecdotal evidence.

2.3.1 Surveys

To determine the response of banks to environmental liability issues, surveys have been conducted worldwide, nationwide, and in at least one state. One such survey, which was sponsored by the United Nations Environment Programme, had commercial banks worldwide as its primary focus and investment banks as its secondary focus. Another survey encouraged responses from the top banking institutions across the U.S. A statewide survey focused on lending institutions in Alabama, which comprised commercial banks, consumer-loan banks, and agricultural banks. The findings of each are discussed below.

Worldwide Lending Institution Results. The survey sponsored by the United Nations Environment Programme, for which 26 percent of those responding were U.S. banks, produced results indicating that about 50 percent of those surveyed had some type of documented environmental program. Furthermore, the data showed that over 75 percent of responding lending institutions

applied environmental criteria when making a decision concerning a financial transaction.

Respondents indicated that environmental criteria were used more frequently with credit risk management activities than with formulating overall lending or investment strategic focuses. The disparity in these responses appears to confirm that bankers are focusing primarily on the risk avoidance side solely and not looking for the return on revenue opportunities to be found in innovative environmental practices (Environmental and Finance Research Enterprise, 1994).

Survey results also showed that, after environmental site assessments and screening criteria, contractual covenants were the tool most widely used by the respondents for managing and controlling environmental risk. Fifty-five percent of the respondents stated that they included specific environmental covenants and conditions within their basic contractual agreements that directly assessed a borrower's environmental performance and activities (Environment and Finance Research Enterprise, 1994).

Nationwide Survey Results. The Bankers Roundtable conducted a survey directed toward its members—the 125 largest banking companies in the U.S. The focus of the survey was broad, inquiring about members' general experiences with environmental liability and the impact on lending policies and fiduciary policies. In general, the survey found that concerns regarding environmental liability continue to affect lending policies and fiduciary practices across the country. More specifically, 100 percent of banks responding indicated they had environmental policies in place to guide their lending practices (Bankers Roundtable, 1995). Furthermore, 95 percent had been forced to expend funds on environmental remediation to facilitate use or disposal of a property (Bankers Roundtable, 1995). The survey results also showed that, of those banks responding that offer fiduciary services, 96 percent had made alterations to their fiduciary policies in response to environmental liability concerns (Bankers Roundtable, 1995). The survey did not include detailed information on specific banking practices.

Alabama Survey Results. Of those Alabama banks surveyed, 44 percent reported having a written environmental liability policy

document (Goodman and Hurst, 1995). The majority of those with a policy document were the large banks with assets of \$100 million or more.

Although environmental site assessments can be required by any of the banks surveyed to identify and quantify any potential environmental problems, the survey results indicated that over 26 percent of those banks responding to the survey did not ever require the assessments to be performed. Furthermore, almost 28 percent of responding banks reported using a “trigger” loan amount for requiring an environmental site assessment (Goodman and Hurst, 1995).

Other survey results are as follows:

- Most banks surveyed did not monitor environmental compliance.
- Bankers expressed a lack of information relating to environmental liability in lending.
- No responding bank indicated that it had refrained from foreclosure on property because of potential environmental liability.

2.3.2 Example: Canadian Imperial Bank of Commerce (CIBC)

One argument has is that the acceptance, in some court rulings, of due diligence as an appropriate defense in environmental liability cases, has led some banks to implement risk management programs to protect themselves (Bisset, 1995). These programs typically involve the cooperation of account managers, risk managers, and bank customers. These programs identify environmental risks, assess the risks, and manage the bank’s exposure (Robbins and Bisset, 1994). The environmental risk management program of one particular bank, CIBC, merits further discussion here.

CIBC has adopted a ten-step commercial lending process that incorporates environmental factors (Bisset, 1995). Step 1 is Preparation: account managers establish the nature of the environmental evaluation. Step 2 is Customer Contact, which involves explaining to the customer the bank’s requirements and the parameters of the site inspection and management system review. A Customer Meeting is the third step of the lending process; during this time the scope and purpose of the bank’s environmental

investigation are outlined. Furthermore, the customer is informed of the process and time required for the investigation, as well as the documentation that will be needed. Step 4 consists of a Site Inspection, which involves identifying environmental risks and liabilities and confirms the bank's understanding of the customer and his problems and needs. During the Management System Review, which is the fifth step of the commercial lending process, several topics are covered, including environmental policies and procedures, resources, training and support, environmental liability, the compliance record, legal actions, audit programs, and any preventative actions the customer has initiated (Bisset, 1995).

The other steps of CIBC's lending process are Step 6, Analysis; Step 7, Loan Structuring; Step 8, Credit Approval; Step 9, Credit Review; and Step 10, Loan Management. If environmental risk is present, the bank's risk management experts may be called in during the proceedings of the sixth step. The seventh step, Loan Structuring, may be slightly different for those companies with environmental risk than for those without the threat of environmental risk. That is, the bank may set up a trust to cover emergency and planned closure costs, as well as post-closure costs. Furthermore, annual audits; quarterly environmental compliance certificates; and collaboration with a third party, such as the government, may also be required. CIBC loan officers have the option of asking for indemnification, insurance, submission of periodic environmental reports, and the development of new policies and procedures, as well. The final step of the lending process, Loan Management, may also be different for those companies thought to be environmentally risky in that their environmental matters will be reviewed and monitored regularly.

2.3.3 Anecdotal Evidence

Environmental factors are gradually becoming a part of the core credit management processes at many of the world's leading banking institutions. Although pre-commitment environmental due diligence is now a standard part of most real estate secured debt transactions, environmental due diligence is still relatively new and not always incorporated into the credit process when it comes to equipment financing, general lines of credit, project finance activity, and other forms of credit. However, the number of transactions

subject to environmental scrutiny appears to be growing (Bennett, 1994).

Regardless of the type of transaction involved, most institutions have yet to identify a consistent way to quantify the environmental issues in such a manner that allows for integration into the core credit risk model. Most institutions rate the environmental question in one of three ways: (a) decline, (b) pass, or (c) need to take action in some fashion (i.e., corrective action needed prior to approval, financial hold-backs, higher fees, gradual/conditional disbursements, etc.). In other words, the actual environmental due diligence review is part of the basic credit process, but not part of the evaluation model or score.

Based on two studies performed by Environmental and Finance Enterprise (EFE) in 1994 and 1996 (the 1996 research will be released in November of 1996), it appears that European respondents although lagging North America respondents on the environmental real estate due diligence front, are materially ahead of the Americans on all other fronts when it comes to evaluating environmental financial issues. Not only has the gap widened over the last two years, but based on the respondents' feedback, the gap will grow even wider by the turn of the century.

2.4 Outlook for Monitoring Debt Transactions

Lender liability concerns have been a key determinant of bank's environmental risk management activities. As the lender liability issue has been clarified somewhat by the legislation signed in September, 1996, one question may be whether banks will have the same incentive to be as vigilant to environmental factors in their debt transactions as they did prior to the legislation.

It seems reasonable to assume that banks will not have the luxury of letting down their guard on environmental matters because of the lender liability legislation. First of all, the new legislation does not eliminate banks' potential liability; rather it clarifies the terms under which the liability arises. Second, the lender liability only applies to CERCLA liability, not to any other forms of liability imposed by other federal and state environmental statutes, worker safety standards (e.g., OSHA), or through third party lawsuits. Third, there are factors other than lender liability that underlie banks' attention

to environmental factors: protection of collateral and risk of borrower default. These factors are not directly affected by the new legislation.

Because current environmental risk management activities have been heavily influenced by existing guidelines from federal regulatory agencies such as FDIC, the Fed, and OCC, future activities may depend in part as a result of changes in these guidelines or new initiatives. We contacted staff members from FDIC, the Fed, and OCC who are actively involved in environmental guidance to inquire as to the prospects for any new environmental initiatives, especially in light of the changes in EPA's lender liability rule and the ISO 14000 series.¹

Representatives from these three agencies provided consistent responses to this inquiry. All parties agreed that their agencies will immediately be evaluating the new lender liability legislation to determine the applicability for its guidelines. It should be emphasized, however, that these agencies do not give explicit instructions for the bank on specific actions they can/should take to reduce liability. Rather the guidelines essentially advise banks to attend to environmental matters with appropriate diligence and to seek expertise on how to deal with these issues from sources that deal specifically with the technical problems at hand (e.g., the EPA, their bank customers, third parties). Two of the three agency respondents were unaware of the ISO 14000 series, much less its applicability for the banking industry. When the basic features of ISO 14000 were described, both parties indicated they thought this would be helpful for banks and sought to learn more about the ISO 14000 series.

2.5 Potential ISO 14000 Relevance for Debt Transactions

The ISO 14000 initiative (specifically ISO 14001) could serve a meaningful role in helping issuers of debt evaluate environmental risk on a pre-commitment and, to a lesser extent, post-commitment monitoring basis. The reason for the emphasis on the former is that ISO 14001 compliance (noncompliance) information could be integrated into current environmental due diligence processes on

¹Personal communications on October 31, 1996 with Stanley B. Rediger, supervisory financial analyst with the Federal Reserve Board, on November 1, 1996, with James Leitner, Examination Specialist with FDIC, and November 13, 1996, with Bill Kerr, Bank Examiner and Policy Analyst, OCC.

any form of credit, as it pertains to any plant and/or equipment extension of credit. Any role it would play in post-commitment environmental monitoring would likely necessitate a new monitoring process since little corrective-action related monitoring is done today. The likelihood does not seem high that new post-commitment monitoring processes utilizing an unknown and unproven protocol as its primary component will be widely adopted by financial institutions.

As to the exact role ISO 14000 might play, we can look at the bankers need for consistent and comparable data that allows them to compare similar types of financing transactions. With the introduction of ISO 14001 and the development of an information framework (e.g., sequence of questions) tied to it, credit officers would be able to compare firms and plants on each facility's specific approaches to environmental management systems and their perception on how these differences in practices will affect relative risks.

Through compliance with the ISO 14001 standard, firms can demonstrate that they have a specific plan to reduce environmental impacts and are incorporating environmental management into the overall management of the organization.² The banking industry's interest will depend on the extent to which they see a connection between this certification and actual reductions in financial risk assumed by bankers. This connection will clearly depend on the quality of external information that emanates from the ISO 14001 process, which is still under development. A more detailed discussion of potential informational outputs from the ISO 14001 process will be presented in a later working paper for this project.

²Note that ISO 14001 certification can apply either to an entire company or to a subset of a company's facilities or production processes (ISO, 1996). This means that a multi-facility company can have some facilities that are and some that are not ISO-14001 certified or all facilities under a company could be certified (CEEM, 1996).

3. EQUITY TRANSACTIONS AND ENVIRONMENTAL FACTORS

Our review of the literature, discussions with banking organizations, and informal communications with industry sources suggest that bankers concerned with equity transactions (investment bankers) are, by and large, less attentive to environmental factors than are bankers concerned with debt transactions (commercial bankers). As commercial bankers are motivated to consider the specific regulatory and legal aspects of environmental factors in a debt transaction, the role of environmental factors in an equity transaction is somewhat more indirect, depending on the level of ownership the bank takes via the transaction. In some cases, the bank takes little or no equity and their environmental risk is concentrated on the effect environmental performance will have on the market value of their shares. However, some equity transactions may involve banks taking a large ownership stake, in which case their liability grows both with the size of the transaction and the extent of responsibility assumed by ownership.

In this section we discuss the current state of attention placed on environmental factors in equity transactions, both through what has been written on the topic and through anecdotal evidence. Then, potential implications of ISO 14000 for equity transactions are discussed.

3.1 Status of Investment Monitoring for Environmental Factors

The survey results presented in Table 2 confirm the notion that investment banking has traditionally placed less emphasis on environmental factors than commercial banking. Traditionally, environmental liability has not been heavily scrutinized by many investment banks; however, it is expected to play a larger role in their investment decisions in the near future (Schmidheiny and Zorraquin, 1996).

A survey of 85 financial analysts conducted jointly by two organizations, Extel Financial and Business in the Environment (as cited in Chapter 4 of Schmidheiny and Zorraquin, 1996), showed that over half of those responding considered themselves well informed about the environmental aspects of their respective

business sectors. Furthermore, 60 percent indicated that environmental issues, such as legal issues and cost liabilities, had affected their assessment of companies. These issues were not considered to be significant factors in the investment decisions of many respondents, though, because of the difficulty of obtaining good information and of quantifying the financial impact of environmental issues. However, respondents indicated that, despite poor data, environmental issues were going to become more important over the next decade as quantifiable financial impacts are determined for these issues (Schmidheiny and Zorraquin, 1996).

A survey of recent research by one of the authors of this review found positive correlations between firm profitability and proactive or “overcompliant” environmental activity. While this alone may suggest investment bankers would want to pay attention to environmental performance as an indicator of profitability, it is not entirely clear whether the information on environmental activities provides profitability information omitted by normal financial data. If better environmental performers are more profitable, then this information might be contained in their financial data. Information on current environmental activities, however, could provide information about future profitability because these activities influence the likelihood of future environmental liabilities. The information on the likelihood of future liabilities is not necessarily incorporated into current financial data for a firm and therefore could be of value to potential investors.

The Securities and Exchange Commission (SEC) requires registrant companies to disclose environmental liabilities through their filings with SEC.³ The requirements revolve around disclosure in the following areas (Novitski, 1991):

- ▶ capital expenditures,
- ▶ compliance policy,
- ▶ litigation, and
- ▶ additional information so that disclosure is not misleading.

The intention of these requirements is for investors to access information on any impending environmental liabilities. The court

³ For a detailed review of SEC disclosure requirements, circa 1991, refer to a research volume discussing securities disclosure requirements edited and published by the Practising Law Institute (1991).

case that spurred the SEC action also acknowledged the desire of so called “ethical” investors to invest in companies concerned about the environment. (NRDC v. SEC, 432 F. Supp 1190, D.D.C 1977). Reporting requirements are generally subject to the qualification that the expenditure or liability must be “material,” which opens up the potential for differences in interpretation.

One problem is the poor data related to environmental issues that exists for many companies. Concerns have been raised about the apparent lack of disclosure by companies (Meloy, 1994). Furthermore, although companies may provide information concerning environmental issues in their annual reports, investment banks may not find this information very useful. According to a survey of more than 600 United Kingdom companies’ annual reports, information provided is generally of little value for two reasons:

- Only 25 percent of the companies compare their environmental performance with pre-set targets.
- Making comparisons across companies is difficult because of the “free-for-all” of information that is reported (*Financial Times*, 1996).

Furthermore, investment banks often have problems verifying figures concerning environmental issues that are included in company reports because only 26 percent of survey respondents have an external audit performed or have the information verified (*Financial Times*, 1996).

3.1.1 Anecdotal Evidence

At present, very few private sector banking institutions integrate environmental issues into their equity investments. In general, when environmental issues are looked at, they are viewed as a “nuisance” by bankers, with the absolute minimal amount of effort, time and data being appropriated to analysis, reporting, or formal evaluation. When environmental issues are looked at more closely, they tend to be viewed as either “deal killers” or as acceptable risks, and are then simply taken as is. And some investment analysts view environmental issues as not very important in comparison to other factors (Sesit, 1996).

Although not a great deal is being done in this area, virtually all the work that is being done, based on the soon to be released EFE

research study, is being performed by European Institutions, some of who have a major U.S. presence. At this time, several European institutions are trying to find ways to actually quantify and integrate the impact of environmental issues into their financial scoring and assessment models. Based on the authors' experience, it does not appear that anyone, except possibly one large financial services firm, has been able to effectively perform this activity to date, on an ongoing basis, as it relates to actual investments.

3.2 Potential ISO 14000 Relevance to Equity Transactions

For two reasons ISO 14001, in the near term, is seen as having less impact on equity decisions than on debt decisions. First, ISO 14001 certification may not apply to all of a company's facilities (see footnote #2). Since equity investments are at a company level, ISO 14001 certification might not provide a broad enough picture for the interested investment banker. The distinction may not be that important, however, if most companies seeking ISO 14001 certification will do so for all facilities, especially if accomplished through a single company-level certificate.

Second, debt practitioners are already used to examining and incorporating some form of environmental evaluation into their analysis, while equity investors, in general, are not. It is not clear at this time how data will be used in systematic fashion for evaluating investment risk.

In the long run, however, the ISO 14001 process could prove to be of greater value to some equity investors because the absolute level of risk is greater for investors undertaking a large equity stake in a company than, e.g., for a lender extending funds to a borrower. Aside from potential CERCLA liability, the lender's exposure is more or less limited to the funds extended, whereas the entire equity stake could be at risk for an investor. Nevertheless, ISO 14001 will need to prove it has informational value, before it becomes part of the mainstream investment management process.

4. SUMMARY

A key task in assessing whether voluntary consensus environmental standards such as ISO 14000 will provide useful information to the banking industry is to determine how the industry currently uses or

soon plans to use environmental information and whether the ISO 14000 process has the opportunity to add to or augment these practices. This working paper summarizes our review of current banking industry practices in the area of environmental risk management. Our review found several key patterns in the industry, which we summarize below.

Banks' Current Environmental Risk Management Emphasis Is on Pre-Commitment due Diligence on Debt Transactions. Partly as a result of the enactment of several federal regulations, especially those that cover site contamination issues, lending institutions have become much more attentive to environmental matters prior to committing funds on debt transactions. Environmental due diligence appears to be becoming fairly common real estate and is rapidly expanding into other forms of credit extensions.

Environmental risk management for lending institutions, for which collateralized property is currently the primary focus, has been facilitated by many organizations' efforts to provide guidelines and standards for lenders to ensure they have taken proper steps to limit their liability in the presence of fines and legal judgments against their borrowers. With more emphasis on environmental risk management programs, a noticeable increase has occurred in the amount of screening and due diligence efforts to gather information on potential environmental risks. However, the evidence suggests that banks are not continuously monitoring their borrowers' environmental performance to guard against an increase in the level of risk associated with specific lending/borrowing relationships. This situation may change, though, if the few institutions that do continuous monitoring (e.g., Canada's CIBC) find these efforts profitable.

Environmental Information Is Less Widely Used by Banks in Equity Transactions than in Debt Transactions. Some research evidence cited in this review indicates a positive relationship between firm profitability and environmental performance. If pervasive, this relationship would seem to justify integrating environmental criteria into the investment process. However, there has been little in this area to date. The use of environmental information by investment bankers is typically informal. Anecdotal evidence suggests that, although financiers acknowledge the potential benefits of such information, many believe they do not have adequate data to make

sound decisions. Where and how they will get this data, and then how they might use it continue to be uncertain.

Government Regulations and Guidance Play a Large Role in Banks' Environmental Risk Management Activity. Much of the activity taken by banks in the area of environmental risk management is in response to governmental action, either through the regulatory process or through the judicial system. A vast majority of current activity is defensive and in response to regulatory mandates or judicial actions. Although the traditional "command-and-control" approach to environmental regulation is giving way somewhat in the U.S. and elsewhere to more flexible regulatory approaches, it is not clear how the current system will ultimately evolve, and how financial institutions will react.

As for the relevance to ISO 14000, government could, in principle, play a significant role in the use of ISO 14000 information by banks through these same channels (i.e., by placing some requirements on industry to use the information that is provided, require it to be provided, or establish its use as a precedent in further defining legal liability for lenders). At least in the case of regulatory requirements, this is not in the current spirit of ISO 14000 as a *voluntary* program.

Another possibility is that government regulators could provide some regulatory flexibility to ISO 14000-compliant firms to provide incentives for voluntary compliance. This idea has been discussed at both the Federal and state levels, but no commitments have been made.

Also consistent with a voluntary approach, governments might be able to play a significant role in the use of ISO 14000 information by establishing mechanisms that ensure better data quality and efficient dissemination of environmental information to user groups, including the banking industry.

Focus for Remainder of Study. In view of the above information, it would seem that the types of transactions that might benefit most from ISO 14000-derived information in the near term would lie on the debt side (e.g., equipment financing, plant construction and retrofits, and large commercial real estate transfers). However, since recent research by European institutions to integrate environmental considerations into their core equity review processes, some

attention will be given to the equity side in subsequent phases of this study.

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