ENVIRONMENTAL CONSIDERATIONS FOR AGRICULTURAL INTERMEDIATION: POTENTIAL IMPACTS OF CERCLA AND SARA

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Abstract

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During the 1970s and 1980s the environmental agenda moved to prominent position among legal considerations in agriculture. One element of this agenda involves farmer and lender liability for cleanup cost under CERCLA as amended by SARA. This study examines the potential liability for lenders under this legislation. Next, the study investigates some potential actions and consequences for intermediaries from a theoretical finance perspective. Specifically, the paper addresses changes in credit risk resulting from the emerging agenda. In addition, the adverse selection problem in credit is examined for potential insights into the credit decision. Finally, the study concludes with practical advise for financial intermediaries in agriculture.

Keywords: environmental contamination, cleanup, liability, adverse selection.
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The 1970s and 1980s witnessed an increasing awareness of man's effect on the environment in the United States and abroad. This increased awareness has manifest itself in several ways ranging from cultural events to focus attention on environmental concerns to political pressure to address environmental concerns through legislation. Several of these manifestations have consequences for agriculture, but potential legislative activities have significant and direct affects on agriculture. For example, concerns over the long term effect of certain pesticides, such as DDT, have lead to the ban or strict control of the use of such pesticides. As a result farmers or agribusinesses have been forced through the legal environment to shift to potentially less effective controls. The shift towards less effective but less hazardous inputs can then be modeled as an upward shift in agricultural supply.

Another dimension of increased environmental pressure involves the liability for environmental cleanup through legislative enactment of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980\(^1\). This act authorizes the federal government to clean up inactive hazardous waste sites that threaten human health or the environment. CERCLA, also known as "Superfund", provides a fund for cleanup of contaminated sites when no other parties are able to conduct cleanup. This reserve of money is replenished from federal funds, taxes on certain chemicals and petroleum products, litigation settlements and
recovery of fines. CERCLA empowers the Environmental Protection Agency (EPA) to recover the cleanup costs from responsible parties with little or no costs to the taxpayer.

CERCLA was amended in October of 1986 by the Superfund Amendments and Reauthorization Act (SARA). Aside from the reauthorization of CERCLA, the SARA was also intended to clarify what had been cited as poorly drafted original legislation (see United States v. Northeastern Pharmaceutical & Chemical Co.). However, the attempted clarifications in SARA have proved inadequate. Inconsistent judicial interpretation and implementation of CERCLA’s stringent provisions regarding lender liability for contaminated collateral have left lenders unsure of what constitutes risk-free lending activities. As a result, lenders are again calling for legislative reform. Recently, the Environmental Protection Agency published its proposed rule on lender liability.

The purpose of this paper is to examine the implications of the amended act for financial intermediaries in agriculture. The first section discusses key provisions of CERCLA and potential defenses against liability following Oleksa fairly closely. It then briefly outlines the decision process of financial intermediaries with emphasis on those decisions that could be affected by the emerging environmental agenda. Next, it outlines potential bank responses to adjust for the emerging environmental agenda. Finally, conclusions are offered.
Key CERCLA Provisions

The EPA is empowered to identify and clean up inactive hazardous waste sites under the amended CERCLA. Further, pursuant to CERCLA, the EPA is empowered to look to certain parties for reimbursement. In section 104 of CERLA, the EPA is authorized to act "whenever (A) any hazardous substance is released or there is a substantial threat of release into the environment, or (B) there is a release or substantial threat of release into the environment of any pollutant or contaminant that may present an imminent and substantial danger to public health or welfare." The terms "hazardous substance" and "pollutant or contaminant" are defined differently for the purpose of response and do not include petroleum products.

CERCLA authorizes several responses including: Short-term removal actions, to deal with spills and other emergencies which present imminent hazards and require immediate response, as well as nonemergencies which present a near-term threat. These actions are not dependent upon the site being on the National Priorities List (NPL). The NPL is a master list of the "worst sites" created to prioritize cleanup sites. Other authorized responses include longer-term remedial responses designed to permanently solve the problems encountered at hazardous waste sites which are listed on the NPL. In addition to removal and remedial actions to clean up the environmental hazards, CERCLA provides for enforcement actions against solvent potentially responsible parties (PRPs) for the cost of cleanup.
In defining the PRPs, CERLA recognizes several distinct classes of parties responsible for site cleanup. PRPs include the generators of waste, transporters of waste including those who arranged for transportation and current or past owners or operators of the facility. Liability for response costs is established by the EPA based on several factors. First, the EPA must demonstrate that the site is a "facility", defined by the Act as any area where a hazardous substance is located. Second, the EPA must establish that there has been a release or threatened release of some hazardous substance from the site. Third, the release or threatened release has caused the United States to incur response cost. Finally, the defendant is one of the persons designated as a party liable for costs.

By most standards the liability imposed by the Act is fairly harsh in that it is retroactive, strict, and joint and several. Retroactive liability means that an individual can be held responsible for contamination activities that occurred years before the passage of the act. Strict liability or liability without fault means that an individual can be held liable even though that individual played no role in the generating or disposing of the hazardous waste. Joint and several liability implies that the government can seek full restitution from any PRP as though they were fully responsible for the contamination. Taken together these legal constructs are extremely severe. For example, retroactive liability implies that an individual can be held liable for cleanup of a toxic site that was created before the emergence of the environmental agenda. Further, under certain situations to be discussed
later, the EPA can look to the lender for complete reimbursement. Taken together these facets of the legislation coupled with inconsistent interpretations by the courts have earned CERCLA a fearful respect throughout the lending industry.¹¹

Potential Defenses

CERCLA offers several statutory or legislatively mandated defenses. Specifically, the litigant can be shielded from liability under CERCLA if the release and damages were caused by an act of God, an act of war, or the actions of a "non-contractual" third party.¹² From a lender’s perspective, the third party defense is the most likely avenue for defense. Under the third party defense¹³ the defendant must establish that no contractual relationship existed directly or indirectly between the defendant and the third party, a third party was the sole cause of the release or threatened release, and the defendant showed all due care with respect to the hazardous substances and that precautions were taken against such occurrences.¹⁴

The problem with the third party defense, from the lender’s perspective, is that it offers little protection from liability for innocent parties purchasing the property after contamination. The primary problem with the defense in this situation relates to whether the deed or document of property transfer represents a contractual relationship between the current and past owners of the contaminated property. If so viewed by the courts, the new owner may be liable for cleanup under CERCLA. The specific decision rendered depends on the court decision. In
an attempt to clear up the judicial uncertainty in making this determination, Congress amended CERCLA through enactment of SARA. One aspect of this legislation was to clarify the meaning of "contractual relationship". This clarification is now referred to as the innocent landowners defense.¹⁵

The innocent landowners defense is established at the time of acquisition if the purchaser has no reason to know of the property's contamination, and makes "all appropriate inquiry" into the previous ownership and uses of the property consistent with good commercial or customary practices in an effort to minimize liability.¹⁶ To establish whether "all appropriate inquiry" has been exercised, the court considers the defendant's special knowledge or experience, an imbalance between the purchase price and the value of the property, commonly known or reasonably ascertainable information about the property, the obviousness of the presence of contamination and the ability to detect contamination by appropriate inspection.¹⁷

Another defense available to lenders under CERCLA is the security interest exemption. Under this exemption, a lender holding an "indica of ownership to protect his security interest in the facility" is exempt from liability as an 'owner or operator' if s/he does not participate in the management of the facility."¹⁸ Unfortunately, this has been subject to narrow interpretation by the courts.
Lessons from Case Law

The implementation of CERCLA has been subject to judicial review and interpretation. (This point has been raised several times in the preceding discussion.) For example, the issue of whether a deed of transfer represented a contractual relationship as interpreted by the court was the pivotal factor in determining the validity of the third party defense. Subsequently, an understanding of the act's impact necessitates a brief review of judicial interpretations of its provisions.

In *United States v. Mirabile*, the defendants argued the secured interest exemption. In the *Mirabile* case, the Environmental Protection Agency sued the current owners, the Mirabiles, for cleanup from contamination left by previous owners. The Mirabiles joined two banks as third party defendants by alleging that as lenders to the previous owners each bank contributed to the contamination. One bank, American, asserted that its foreclosure and related activities with the previous owners were carried out to protect its security interest in the property. American's involvement with the previous owners included involvement with marketing and sales strategies and employment benefits. In arguing for protection under the security interest defense, American asserted that these involvements did not constitute management of the facility. Thus, they argued that they could not be held liable for cleanup cost as an "owner and operator" of the facility. The court sided with American bank.

However, the second bank, Mellon, was not as lucky. It's involvement with the previous owner consisted of placing a loan officer on
the company's board of directors to manage daily business activities. In doing so, the court found that Mellon had participated in the management of the facility and, as such, was liable as an "owner and operator". In rendering this decision, the Mirabile court raised the "management participation" test. This test has been widely accepted as a benchmark for deciding lender liability as an "owner" of the facility under CERCLA.

In United States v. Maryland Bank and Trust, a bank was again denied protection under the secured interest exemption. In this case Maryland Bank held a security interest in a 117 acre farm which had been used as a garbage dump. Upon failure of the debtor to make payments, the bank purchased the property at a foreclosure sale. The EPA filed suit against the Maryland Bank for cleanup cost after the contamination was discovered. Maryland Bank argued the secured interest exemption as a defense since it did not participated in the management of the property when the contamination occurred, but merely took possession of the property to protect its security interest in the property. The court rejected the banks argument stating that the "security interest must exist at the time of cleanup". More specifically, the court argued that Maryland Bank's security interest ended when it took title to the land at which time "it ripened into full title". Subsequently, the bank lost its security interest defense when it took title of the property.

The rationale behind this decision remains unclear since American Bank in Mirabile also took title to the property. Here, the difference may rest on the length of time Maryland held the property after foreclosure. The property was held for four years following its purchase.
This may have caused the court to infer that Maryland was holding the property to protect its investment and not its security interest. Nevertheless, the Maryland decision has had a significant impact on the legal environment in that a bank, while not directly participating in the management of a facility during the time of contamination, can be held liable for cleanup. This rationale was again applied in Guidice v. BFG Electroplating Manufacturing Company, Inc. When the court held that a lender was liable for cleanup because it acquired property after it was contaminated.

In United States v. Fleet Factors Corporation the 11th Circuit Court of Appeals significantly expanded the scope of lender liability. In this case, the defendant Fleet Factors avoided foreclosure by engaging a liquidator. The liquidator's actions resulted in further contamination. The government proved that the defendant involved itself in the daily operations of the insolvent corporation in Chapter 11 bankruptcy. Specifically, Fleet Factors was involved in hiring, restricting shipping, and pricing. Because of this involvement, the Court held that the lender had the "capacity to influence" the firm's decisions, and as such was responsible for the cost of cleanup as an owner/operator.

Decisions of Financial Intermediaries

The financial intermediary exists to make a return for the stockholder. However, many of the decisions of the intermediary are regulated by state and national agencies because of the importance of the banking
system to the national economy. The primary decisions at a bank's disposal are credit risk, asset and liability management, liquidity management, and financial leverage (Livingston). Of these decisions, credit risk management decisions will probably be most directly affected by the emerging environmental agenda.

In essence credit risk decisions involve who the intermediary extends credit to and on what terms. The exact nature of the decision is specific to each intermediary, but in general the bank will grant credit if the banker perceives the creditor to be an acceptable credit risk. To determine credit risk, bankers may depend on sophisticated credit scoring models such as those documented by Turvey and Brown, Miller and LaDue, and Turvey. However, in the end, the credit extension decision is a matter of the banker's judgement.

A primary thesis of the emerging environmental agenda is that the structure underlying what is a good loan or a bad loan has changed. The specific nature of the change is twofold. First, loans that would have been previously classified as good, or as having a high probability of repayment, may be questionable under the new environmental regulations. This shift is due to the additional risk imposed through enforcement of environmental regulations. Hence, firms whose business involves the use of hazardous substances incur some additional legal risk. In addition, the collateral required by the bank is also risky under the new environmental agenda. The second risk evolves from the potential liability of a financial intermediary in excess of the value of the loan if it is found liable for cleanup under CERCLA or SARA.
To provide an initial point for the potential ramifications of the emerging environmental agenda, let us consider the market for loans. In theory, CERCLA has shifted the supply of loans to agriculture inward. Thus, at any given interest rate the banks will offer fewer loans to agriculture. Against a fixed demand curve, this implies that the quantity of loans will decline and the interest rate will rise to allocate loanable funds to their highest marginal value product. Unfortunately, this scenario may not be an adequate representation of the credit market. Specifically, Stiglitz and Weiss developed a model with asymmetric information in which credit rationing is necessary.

The basic idea of Stiglitz and Weiss is that there exist two types of individuals in the economy. The first type of individual is the good credit risk who in this case is environmentally conscious. The second individual is a poor credit risk. Naturally, the first economic agent possesses a lower probability of bankruptcy than the second. Given an increase in the interest rate, Stiglitz and Weiss demonstrate that the poor credit risk group may be more likely to demand credit than the high interest rate group. One explanation for this phenomenon is that a person already contemplating bankruptcy is not as adverse to borrowing more money at a higher interest rate as a fairly solvent borrower. Stiglitz and Weiss use this result to demonstrate how the interest rate may not provide an adequate clearing mechanism in the credit market. However, from the standpoint of the environmental agenda the adverse selection mechanism suggest that increasing the interest rate to
industries where environmental contamination may occur would cause the overall quality of the loan portfolio to deteriorate.

Stiglitz and Weiss also demonstrate that the collateral requirement alone may also be insufficient to guarantee market clearing. Hence, simply raising the collateral requirement instead of the interest rate will be insufficient to separate good credit risk from the bad. However, Bester demonstrated that the two instruments used together are sufficient to separate the lending market. For example, a decreased interest rate offered for increased collateral could separate the credit market. Thus, the bank's response to the emerging environmental agenda may involve offering different contracts with alternative collateral/interest rate combinations.

Stiglitz and Weiss, and Bester assumed that the value of the collateral is fixed. The risk involved whether the borrower would default or pay the principle and interest. However, the risk in the environmental agenda is more pervasive. Specifically, in the current framework, the debtor may default because of environmental action. For example, suppose that the debtor caused a hazardous release and the EPA sued for damages. It is possible that the amount of that suit would drive the borrower into bankruptcy. The loan has been revealed as "bad" under the asymmetric information framework. Unfortunately, the value of the collateral that the bank receives in repayment of the loan is now less than anticipated. As discussed in the preceding section, the bank may be held liable for cleanup under CERCLA. The optimal decision of the bank may even be to write off the loan altogether, if the anticipated cost of cleanup is
greater than the market value of the land. Therefore, the value of the collateral collected by the bank has now become a stochastic function of the type of borrower.

One potential instrument for circumventing this complication is to require a application fee for acquiring credit. This application fee could be inversely related to the interest rate in much the same way that mortgage points are inversely related to the interest rate on a home mortgage. Unfortunately, application fees sufficient to compensate for the risk incurred under environmental liability may be prohibitive due to the potential cost of an environmental cleanup.

The second major concern involves the value of the collateral on existing and future loans. The traditional practice of collateralizing farm loans with farm land prior to the 1980s offered substantial protection to agricultural banks. Specifically, between the second world war and the mid 1980s farm land prices experienced a general upward trend. This general upward trend would "insure" that banks eventually received repayment on practically any agricultural loan backed by farm land. However, the onset of financial stress in the mid 1980s upset this trend as agricultural asset values across the midwest suffered a significant set back. In essence, the collateral value of agricultural land has become risky due to the liquidity risk phenomenon explained by Barry et al. Hence, banks and regulators have considered risk-weighting schemes for collateral in which different classes of assets are assigned different weights according to their perceived riskiness.
The evolution of risk assessment for banking assets takes on an additional dimension in the emerging environmental agenda. The suggested risk adjustment considered thus far is due primarily to price and yield fluctuations, and the thinness of the market for agricultural land. However, the emerging environmental agenda introduces collateral risk through the possibility of environmentally degraded collateral. To account for this additional environmental risk, agricultural collateral may require additional scrutiny and risk adjustment due to relative probabilities of environmental contamination. For example, a feedlot may require a relatively higher risk discount than organic vegetables.

At the extreme side of the collateral risk, the bank may acquire a liability greater than the value of the asset by taking possession of the collateral. Thus, the foreclosure or debt forgiveness decision of the bank needs to be extended to consider environmental ramifications. Specifically, a bank may not wish to actually acquire title to a contaminated property because the potential environmental liability assumed with the property may exceed the recovery value available to the bank through the sale of that property.

This effect may be magnified by another dimension of the moral hazard literature. One response to impending bankruptcy may be to "double the bet". For example, the borrower may realize that bankruptcy is inevitable without some miraculous event. The decision maker may then wish to bet on the miracle. This bet is typically more risky than the ordinary operation of the firm. In the current scenario, this bet may be a high risk cropping practice that involves some environmentally hazardous
action. Alternatively, the firm may turn part of the farm into a questionable dump facility. Therefore, the probability of contaminated collateral may be increased because the borrower anticipates bankruptcy.

Possible Bank Responses

The preceding sections of this paper detail how the environmental agenda has changed the landscape for agricultural lending. First, we presented the legal ramifications of environmental legislation based on statute and its interpretation by the courts. Next, the study developed potential constraints and ramifications based on theoretical models of borrower behavior. This section completes the examination by attempting to suggest strategies for operation under the emerging environmental agenda.

The first response is to change the law. Olexa examines some of the pressures toward regulatory reform. He discusses draft legislation from the EPA to clarify actions that a lender can take in order to limit exposure when foreclosing on a loan.27

Olexa states that the rule proposed by the EPA sets actions that the bank can take without being cited as a participant in management and running afoul of the Mirable decision. Specifically, some elements of teh rule note that the lender may:

1) require cleanup of the site before or during the course of the loan;
2) demand assurances that borrowers are complying with local, state and federal laws and regulations;
3) inspect the facility;
4) provide financial advice to its debtor; or
5) carry out those steps necessary "to adequately police the debt or comply with applicable legal requirements."28

The wording of this draft section, however, still appears to place the lender in a role as environmental police. The redeeming fact may be the proposed ability of the lender to offer financial advice to the borrower. Moss in the comment on Olexa noted that banks may suggest marketing strategies or program participation to farmer borrowers. The point of contention around this point may involve whether such participation is a requirement or condition of the extension of credit versus a true suggestion.

Olexa also cites two other proposed changes in the draft rules. First, the draft proposes that property held for an excess of six months be viewed as a security interest and not presumed to be an investment. This change is undoubtedly a response to the Maryland Bank and Trust ruling. In addition, the rule proposes to shore up the innocent land owner defense by requiring the buyer to investigate previous uses and owners of the property.

One procedure that could be used to establish diligence on the part of an innocent purchaser or lender is an environmental audit. Briefly, an environmental audit is a process whereby some third party will examine the property for the presence or absence of environmental contaminants. The quality of the audit is often determined by its scope. While still no guarantee to the health of the land, the greater the scope of the audit, the more accurate the audit. Risk is still involved in the transaction.
The environmental audit may perform two functions in the credit scenario. First, the audit can be used to establish due diligence on the part of the lender. Second, the cost of the environmental audit may serve as an application that would help separate the borrowers in the credit rationing models. Unfortunately, the ability to offer different interest rates for different risks as proposed in Bester may provide difficulty in the environmental agenda. Specifically, the willingness of an individual to pay a higher interest rate to reduce the accuracy of an environmental audit may be construed by the courts as information to the possibility of contamination. The complete separation of groups as developed by Bester may not be feasible. An alternative would be to produce a set of audit sufficiency standards based on historical uses of the land. For example, if the land had historically been used for vegetable production the standard may be more stringent than land historically used for pasture.

The second decision instruments directly available to the lender are the rules used to determine the adequacy of capital. As developed in the preceding section, these rules are risk adjustments for the liquidation risks on certain capital items. In general, the risk adjustment factors have declined for agricultural assets over the past decade. During the late 1970s, banks could extend credit to any borrower with a debt-to-asset ratio lower than 70%. After the bout with financial stress during the 1980s, the required debt-to-asset ratio fell to 50%. Implicitly, the risk adjustment factor fell. The emerging environmental agenda may provide impetus to factor the risk adjustment into components. It is probably unrealistic to require all loans to obey the same risk ratio. An
alternative approach would be to estimate the relative risk accruing to different categories of loans. One approach for this separation may involve the single index model with adjusted hurdle rates (Collins and Barry, Moss et al.).

Lastly, the finance literature suggests that the bank should use caution in increasing its interest rate to compensate for increased environmental risk. Specifically, simply increasing the interest rate to compensate for the increased default and cleanup risk may have an adverse affect on the loan portfolio. The credit rationing models suggest that the bank consider changes in both the interest rate and collateral requirements. However, these models are insufficient in at least two practical aspects. The collateral value is assumed nonstochastic. In addition, from a practical point of view, these models typically are devoid of competitive forces. Specifically, several intermediaries offer agricultural credit. Thus, increases in the interest rate or collateral requirements in excess of other lenders may result in the loss of low risk borrowers to the competition and the deterioration of the loan portfolio.

The competitive nature of the agriculture credit market may, in the end, limit the ability of agricultural lenders to control environmental risk through collateral requirements and interest rates. Thus, the most effective means of control may be for lenders to work more directly with farmers. More than likely, farmers want to succeed and pay off their loans. Thus, the banker may be in a position to provide advice which would increase the probability of success. In this case, the lender can
provide guidelines or suggest extension materials that help the farmer minimize the risk of bankruptcy due to environmental litigation.

**Conclusions**

The emerging environmental agenda has increased the riskiness of agriculture both for production agriculture and for the financial intermediaries that meet its credit needs. The additional risk to lenders includes both an increase in the probability of farm bankruptcy and additional risk beyond the amount of the lending contract. Specifically, lender's may now be held liable for the contamination caused by the borrower under certain circumstances. Both the increased probability of farm bankruptcy and the potential liability beyond the collateral value of the loan point to new requirements for lending in agriculture.

The suggested changes include requiring environmental audits to ascertain the probability of liability under CERCLA. Such audits serve two purposes: (1) they may lead to the rejection of a potentially costly loan or enable the lender to require cleanup as a condition of the loan; and (2) they form the basis of a claim of due diligence. The bank also needs to be concerned with the effect of an increase in the interest rate to cover potential loan losses or environmental liability on the quality of the loan pool. Specifically, the bank should consider some combination of collateral requirements and interest rate changes to prevent an adverse selection process. In a related notion, the lender may wish to re-evaluate the risk-weighting of assets in the collateral requirement.
However, the most useful avenue for controlling losses due to CERCLA and other environmental laws, may involve cooperation with the borrower. Specifically, the lender may be in the position to provide environmental expertise as a part of the total loan package. The banker needs to be cautious in this position not to exhibit the ability to influence.


6. Id. Sec. 9601(14).

7. Id. Sec. 9605(a)(8)(B).

8. Id. sec. 9601(25).


13. Id. sec. 9607(a).

14. Id.

15. Id.


18. Id. sec. 9601.


21. Id. at 579.
22. Berz & Gillon, *Lender Liability Under CERCLA: In Search Of A New Deep Pocket*, 108 Banking L.J. 11(1991). The Maryland court did not clearly distinguish between security interest and an investment. In dicta, the court's rationale appears to be largely based on the excessive period of time the defendants held the land following its acquisition.


25. The actual concept of adverse selection may be traced to Akerlof's "market for lemons" from Akerlof(1970). In this article, Akerlof shows that asymmetric information confuses the information in the price signal resulting in a lower level of aggregate welfare. Further development of the general model in Akerlof(1976) focuses attention on credit markets in developing countries. However, the reader is referred to Stiglitz and Weiss because of the subsequent paper by Bester who shows that a combination of interest rates and collateral requirements can be used to separate the credit market under asymmetric information.

26. Specifically, Bester constructed two different contracts that were incentive compatible. Incentive compatible contracts are a set of contracts such that the potential borrower chooses the appropriate contract under their own incentives. In essence, the poor quality borrowers choose a contract that the bank designs specifically for the poor quality borrower.


28. *Id.* at 1171.
References


