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Small Business Lending: Barriers and Trends

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I. INTRODUCTION

In recent years, small-business lending has been discussed widely among the commercial banking community, a reflection of both the growing relative importance of small businesses to the U.S. economy and the fact that large companies have developed the ability to access capital markets directly for debt and equity financing. Although their market share in small-business lending has been eroded in recent years by competition from depository and non-depository financial institutions, commercial banks remain the most frequently used source of financing for small businesses. Accordingly, this paper will focus on commercial banks.

At some point during their operating history, most small businesses experience difficulties in obtaining bank financing. Some of these difficulties are due to the inherent financial fragility of small businesses, while others result from banks' traditional underwriting and risk management practices. Beyond these "standard" impediments to financing, small businesses in environmentally-sensitive industries face additional credit barriers, which suggests that the issues surrounding financing for environmental purposes are sufficiently problematic to merit special consideration. Recognizing this situation, the Great Lakes Environmental Finance Center (GLEFC) has undertaken a project to identify barriers to environmentally-related financing (with an emphasis on pollution prevention), and to devise strategies for overcoming such impediments.[1]

First, the paper presents a brief picture of small business' current role in the national economy. Second, it summarizes the most important barriers they face in obtaining financing. Finally, the paper discusses recent changes in lending practices that promise to increase the overall availability of credit for small businesses, and explores the implications

[1] The project is titled "Integrating Pollution Prevention with Community-Based Economic Development." The original purpose of this working paper was to help GLEFC staff develop a clear understanding of small-business lending issues in general, in order to be able to articulate solutions that specifically address environmentally-related financing barriers.

of these changes for small businesses that seek financing for environmentally-related purposes.

II. SMALL BUSINESS AND THE U.S. ECONOMY

Small businesses have played an increasingly important role in the U.S. economy in recent years. In fact, in terms of numbers, the U.S. business environment is overwhelmingly populated by small businesses. Barrickman and Chagares (1995) estimate that

- 98% of all U.S. businesses have sales of less than $10 million;
- 96% of all U.S. businesses have sales of less than $5 million; and
- 54.2% of all U.S. businesses have sales of less than $250,000.

The sheer size of the small-business market makes it very attractive and is now commanding attention from the financial community. Of more than 9 million companies in the Dun & Bradstreet database, at least 80% have fewer than 20 employees (Pearson, 1994). According to an SBA study, small businesses have been the growth engine of the U.S. economy in recent years.[2] That study concludes that small businesses, especially those with fewer than 20 employees, will continue in this role (U.S. SBA, 1995). According to Brophy (1995), small companies account for:

- 52% of the dollar volume of private-sector sales;
- 50% of private-sector output;
- 54% of private-sector employment;

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[2]There are numerous SBA definitions of "small business," which are sectoral or industry-specific. Operationally, these definitions are expressed in terms of either number of employees or annual receipts in millions of dollars. While the most widely cited SBA definition of "small business" 500 employees applies to most manufacturing industries, the standards that determine this definition vary widely among major industry sectors, and even within sectors. For example, within agriculture, the annual receipts of a "small business" may not exceed $0.5 million. However, for the three motion-picture-related industries (classified at the four-digit SIC level) within services, "small" means up to $21.5 million. A similarly wide range exists in the threshold value for the number of employees.

- 99.7% of all private-sector employers;
- 41% of private-sector businesses' total assets;
- 41% of private-sector businesses' total debt;
- 42% of private-sector businesses' net worth; and
- 36% of all private-sector innovations.

The availability of financing is one of the primary factors on which the future growth of small businesses is dependent. Inadequate financing has an adverse effect on any business. A recent survey indicates that of 23% of small businesses that were unable to obtain adequate financing, 73% found it difficult to expand their operations and increase sales (Arthur Anderson Enterprise Group, 1995).

According to two large-scale surveys of small businesses, debt financing from commercial banks is the leading source of capital for small businesses.[3] First, the 1993 National Survey of Small Business Finances, sponsored jointly by the Board of Governors of the Federal Reserve System and the SBA, estimated that 37% of small businesses obtain traditional credit from commercial banks (Cole and Wolken, 1995).[4] Second, a 1996 survey of small and mid-sized businesses, conducted by the Arthur Anderson Enterprise Group and National Small Business United, estimates that 43% of small and mid-sized companies used bank loans for financing (Arthur Anderson Enterprise Group, 1996) [5]. However, it should be

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[3]However, a 1994 Dun & Bradstreet poll of 300 small-business owners indicated that credit from suppliers is their most popular source of financing. The poll found that 65% depend on credit from suppliers, compared to 40% on credit cards and 35% on bank loans. See "Small-Business Owners Rely on Supplier Credit," *Wall Street Journal*, September 6, 1994.

[4]Traditional credit, as defined by the survey, includes lines of credit, mortgage loans, vehicle loans, equipment loans, capital leases, and other. Additional important sources of traditional credit are finance companies (11.75%), family and individuals (7.99%), leasing companies (7.5%), and other businesses (6.19%).

[5] According to this survey, other frequently used sources of financing include business earnings (29%), credit cards (23%), private loans (19%), personal bank loans (15%), vendor credit (15%), and leasing

noted that both surveys reveal that, within the category of small businesses, the relatively larger ones were significantly more likely to use bank loans than were smaller companies:[6]

- 37% of respondents with 0-19 employees use bank loans, compared to 70% of respondents with 20-99 employees, and 73% of respondents with 100-499 employees (Arthur Anderson Enterprise Group, 1996); and
- 25% to 45% of respondents with less than 10 full-time-equivalent employees obtain traditional credit from commercial banks, compared to 54% of respondents with 10-19 employees, 67% of respondents with 20-99 employees, and 77% of respondents with 100-499 employees (Cole and Wolken, 1995).

III. BARRIERS TO SMALL-BUSINESS LENDING

As noted previously, small businesses are playing an increasingly important role in the rapidly changing U.S. economy. However, various barriers to small-business lending may inhibit further growth of this critical sector of the economy. The following describes six such barriers.[7]

A. High Transaction Costs and Thin Profit Margins

High transaction costs and thin profit margins form one of the primary barriers to the expansion of small-business lending. Traditionally, lenders have underwritten and administered small-business loans much as they have larger commercial loans. This approach is primarily responsible for the high transaction cost--and consequent low

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(13%).

[6] Unlike the Dun & Bradstreet poll (see footnote 3 above), both the 1993 Federal Reserve Board-SBA survey and the 1996 Arthur Anderson survey employed a widely accepted statistical survey technique--stratified random sampling--to ensure the representation of firms in different employment classes and different regions of the country. Their sufficiently large sample sizes ensure statistical validity.

[7] Section IV describes recent changes in the banking industry that are partially overcoming these barriers.

profitability--of small-business lending. It is estimated that the typical small-business loan is $35,000, and the typical aggregate lending relationship is $80,000. For example, the Credit Assistance Pilot Project, conducted by the Maryland Department of Environment, found that banks in that state were reluctant to handle small-business loans either because they are generally seen as being too small to allow the bank to recover its costs or make a profit, or because the business' cash flow is insufficient to service the debt (U.S. EPA, 1995). Small-business loans will continue to be regarded as costly and only marginally profitable until the industry makes significant improvements like the standardization of loan underwriting and administration and the subsequent development of a secondary market for securitizing small-business loans.

B. Small-Business Lending -- A Riskier Market

Small-business lending is a riskier market because of limited information as well as the inherently uncertain nature of small business. Financial and economic information about small businesses, especially that of start-up and less-established small firms, is not available to lenders and public investors, in contrast to information on large companies. The limited financial information available to lenders makes it difficult for them to underwrite small-business loans because it creates acute uncertainty about the viability of small-business borrowers and thus increases the risk of lending to them (Robert Morris Associates, 1995).

Lending to small businesses is also risky because of their high failure rate (U.S. General Accounting Office, 1993). The small-business sector of the U.S. economy is dynamic as well as volatile. According to the SBA, about 14% of firms with paid employees drop from the unemployment insurance rolls, while about 16% are added each year. For example, in FY 1993, there were 5.85 million firms with paid employees; 805, 229 firms (or 14.8%) were terminated, while 915,783 new and successor firms (or 16.7%) were added. Although a high rate of business formation and dissolution is perhaps inevitable in a modern economy characterized by rapid technological change and short product lives, the resulting turbulence exacerbates the inherent riskiness of small-business lending (*The State of Small Business*, 1994).

C. Relationship Banking

Building a relationship between a borrower and his or her lender is an important feature of small-business lending. In many cases, small-business borrowers with longer banking relationships pay relatively lower interest rates, and are less likely to be required to pledge collateral than are other small firms (Berger and Udell, 1995). While relationship banking can often benefit both banker and borrower, it nevertheless adds a barrier to start-up and less-established small businesses. Also, for new and young businesses, relationship lending can be a significant impediment because lenders are inclined to use relationship lending as a mechanism to ration the quantity of loans (Frame, 1994). Not surprisingly, a recent survey of small and mid-sized businesses found that start-ups (defined as companies in their first three years of existence) encountered more difficulty in obtaining loans than did other, more established, small and mid-sized companies (Arthur Anderson Enterprise Group, 1995). Elsewhere, it was reported that small firms lacking fixed assets as well as young companies with little operating history were having difficulty getting credit from commercial banks to finance their growth (Selz and Gupta, 1994).

D. Unmet Service Expectations

As discussed in Section II, commercial banks are one of the major sources of financing for small businesses. Nevertheless, services provided by banks do not always meet small businesses' expectations. A 1995 IBM Consulting Group survey of owners and CEOs of 939 Chicago-area small businesses revealed significant dissatisfaction with bank financing and services. The survey indicates that small-business owners expect more than just banking from their bankers. They want general business advice, education, and assistance on a variety of topics, from cash-management techniques and financing methods to investments and industry trends (*Bank Management*, 1995). A number of studies over the years have produced similar findings regarding the expectations of small-business owners. Such expectations include a reliable and consistent source of credit, an understanding of the borrower's business and industry,[8] access to the loan officer, local delivery and quick response, stability and expertise from the loan officer, strong local market knowledge, and a relationship orientation. Moreover, while small-business borrowers are loyal and bankers are placing more emphasis on lending to them, the level of customer satisfaction has declined (Barrickman and Chagares, 1995).

Another survey shows that in the past, commercial banks have not actively solicited small-business lending in terms of loan sales efforts. A 1993 small-business profile conducted by Payment Systems, Inc. revealed that 45% of small-business borrowers had received no sales calls from their financial institutions (Pearson, 1994).

E. Lender's Potential Liability for Environmental Contamination

Since 1980, the potential liability for environmental contamination acquired by the lender as a result of owning or managing real estate assets has become another significant barrier to commercial lending. The Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), as amended by the Superfund Amendments and Reauthorization Act of 1986, has forced lenders to come to grips with environmental issues. Under CERCLA, the list of potentially responsible parties (PRPs) is sufficiently extensive that even lenders could be (and have been) held responsible for cleanup costs. By obtaining title to real estate that has served as loan collateral, or by becoming involved in the operations of failing borrowers in order to prevent a loan default, lenders have been deemed

[8] From a lender's perspective, however, there is an inherent tension between specialization in lending to certain industries and the need to diversify its loan portfolio.

by the courts to be "owners" or "operators" of contaminated property. Such a determination might oblige the lender to bear all of the cleanup costs, which can be staggering, especially if other owners or operators cannot be located or lack sufficient resources to perform the remediation (U.S. SBA, 1994). Even if the lender is not liable for the contaminated property, the environmental problems and related cleanup costs can have a severely detrimental impact on a borrower's ability to repay a loan. Even the strongest borrower can be financially crippled to the point of bankruptcy if burdened with the costs of cleaning up a hazardous waste site (Holt, 1993). In response to the increased environmental risk of making loans, both lenders and the SBA have been compelled to incorporate due diligence and other environmental sensitivity assessments, as well as restrictions, into their loan screening and approval process.

While a lender's potential liability poses a barrier to businesses' access to capital, the magnitude of this negative impact is not certain. A 1991 American Bankers Association survey suggested that environmental liability has led to a tightening of available credit.[9] Among the respondents (representing 1,741 out of 12,000 banks contacted), 46% claimed to have discontinued financing certain types of environmentally high-risk loans (e.g., those to service stations, firms dealing with chemicals, and others) because of environmental liability concerns (reported by Public Policy Associates, 1996). A more recent study titled *The Impact of Environmental Liability on Access to Capital for Small Business* found that the overall impact of environmental liability on access to capital is rather slight in terms of the entire small-business population.[10] Over 11% of small-business owners and managers reported that lenders' potential concerns about environmental liability had proved at least

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[9]Results of the survey are published as part of the ABA's report to the Senate Committee on Environment and Public Works, *Lender Liability Issues under Superfund* (Washington, DC: U.S. Government Printing Office), Senate Hearings 102-383, April 11, 1991, pp. 171-77.

[10]The study is based on a stratified sampling survey of small businesses in the country, which was conducted in 1995.

something of a barrier to capital. Only 3% indicated that concerns regarding environmental liability had a strong influence, while 81% said it had no impact at all. The survey also found that firms that perceive themselves as being affected by environmental liability have made significantly greater use of non-bank financing sources such as vendor credit, leasing, government loans, equity financing, finance companies, or investment companies (Public Policy Associates, 1996).

F. Uncertainties in Environmental Regulation

Uncertainty associated with changes in environmental regulations is another important hindrance to lending to businesses of all sizes, including small businesses with environmental problems. The 1994 SBA report suggests that lenders are uncomfortable working within an arena of stringent and changing government regulation. Bankers and borrowers are concerned that the technology or standards that are required today may be altered in the near future, causing investment in equipment to be wasted.

The changeable nature of environmental regulations makes it difficult for banks to estimate the useful economic life of environmentally-related equipment and, by extension, difficult to estimate its resale value or the appropriate amortization period for a loan (U.S. SBA 1994). This uncertainty is difficult to price, since environmental laws can alter at any time because of shifts in political philosophy, public pressure, or other influences. Moreover, environmental regulations come into play at the federal, state, and local government levels, and their interpretation at any given time is often made in the courts (Holt, 1993). Therefore, when this uncertainty cannot be priced, it is rational from the lender's perspective to "redline" certain categories of high-risk borrowers.

IV. TRENDS IN THE SMALL-BUSINESS LENDING MARKET

The small-business lending market has undergone many changes, partly due to bankers' efforts to re-engineer their small-business lending policies, practices, procedures, and programs. Such efforts include:

- standardizing and streamlining loan underwriting and administration;
- securitizing loans and developing the secondary market;
- managing environmental risk; and
- segmenting the market.

A. Standardizing and Streamlining Loan Underwriting and Administration

Standardization of loan underwriting and monitoring is probably the most important area in which lenders are striving for change. In response to the structural problem of thin profitability in small-business lending, banks are rethinking the way they traditionally underwrite and monitor loans. Many have concluded that small-business loans should be underwritten, managed, and monitored as a portfolio rather than as a combination of individual transactions, which implies standardization of the underwriting process and a reduction in the level of ongoing monitoring (Barrickman and Chagares, 1995). There has been a move in this direction for several years, and a recent survey of the 50 largest small-business lenders in the U.S. confirms that this change is well underway (Robert Morris Associates, 1995).

Banks are treating small businesses as an important source of loans and fee income and are striving to create efficient and cost-effective small-business banking programs with controlled risk. Most banks are introducing one or more of the following procedures: creating highly standardized products that can be used in packaged form over a broad customer base of small businesses; lowering underwriting costs by adopting techniques like standard documentation and credit-scoring; monitoring loans as a "portfolio" and looking for trend shifts that indicate changes in portfolio quality and increased risk; and centralizing loan approval and documentation to make the process of underwriting, monitoring, and collection more efficient (Furash, 1995). It has been suggested that standardized underwriting and reduced monitoring may result in a higher level of loan losses. However, it has also been asserted that savings in administrative expenses should more than offset the incremental losses (Barrickman and Chagares, 1995).

A key element of lenders' loan standardization efforts is the development and adoption of credit-scoring, a practice which is gaining in popularity among large banks. Credit-scoring is a computerized technique for borrower credit assessment. According to Strischek and Cross (1996), credit-scoring has been successful when used with two basic applications in mind: 1) prospect-scoring to decide which firms should receive credit, and, 2) review-scoring to determine likely default rates. The benefits of a sound credit-scoring model include shorter loan-cycle time and improved information quality, higher loan volume, fewer subjective inconsistencies, more customer face-to-face time for relationship managers, more focused credit review and portfolio management, and greater opportunity for loan securitization.

Credit-scoring is now being widely used or tested by the financial community. Lenders are divided into two tiers in their response to the new technique. Large-scale lenders use a credit-scoring model as a decision-making system to solicit customers, screen applications, and extend credit, while community banks, which still use people rather than computers to make credit judgments, may use credit-scoring to sort applicants or as one of several factors considered when making decisions. Some large banks, such as Wells Fargo and Fleet, developed proprietary credit-scoring systems based on information on their small-business clients. It is predicted that the ability of such proprietary software to maximize approvals while minimizing losses is potentially a tremendous competitive advantage (*U.S. Banker*, August 1996). However, some financial analysts caution that the credit-scoring technique, which is heavily based on the personal credit report of business borrowers, has not been tested by time (Furash, 1995).

Loan standardization could, however, generate adverse effects for some small-business borrowers who do not fit the standard. Standardization introduces an element of inflexibility into lending that prevent many small firms from obtaining credit (Feldman, 1995). The tradeoff is obvious: While it can lower transaction costs and increase profitability in small-business lending, standardization will also inevitably exclude small-business borrowers who need customized credit terms.

B. Loan Securitization

A few years ago, John LaWare, then-governor of the Federal Reserve Board, testified before Congress that small-business loan securitization would increase credit for small business; give banks liquidity, fee income, and asset diversification; reduce bank capital requirements; and offer investors a low-risk security with attractive returns (Feldman, 1995). It is anticipated that securitization will enable commercial banks to increase the volume of small-business loans by focusing on loan origination, which would result in higher profit margins for lenders and, at the same time, a lower borrowing cost for small businesses.

Despite the obvious benefits from securitization, a viable secondary market for small-business loans has not yet been developed. The pace of small-business loan securitization has been sluggish, due mainly to high information costs, a lack of loan standardization, and low profit margins, all of which result from the heterogeneity of small-business loans. According to Feldman (1995), small-business loan securitization is extremely limited and involves only about 0.05% of small-business loans.[11] Loan securitization has a number of preconditions, like homogeneous loan product, standardized underwriting, standardized documentation, predictable defaults, diversification, and credit enhancement. Small-business loans typically lack many of these preconditions (Barrickman and Chagares, 1995).

Despite the barriers to securitization noted above, several developments of recent years are promoting this practice. First, as discussed in section IV. A, many banks have now standardized their loan product. Second, recent legislation has eased some of the previous restrictions on small-business loan underwriting. The Small Business Loan Securitization and Secondary Market Enhancement Act of 1994 mandates that securities regulators and the Internal Revenue Service remove various legal and regulatory impediments to the securitization of small-business loans.[12] It also requires bank regulators to reduce capital requirements on low-recourse loans,[13] and removes regulatory impediments to ownership of loan-backed securities by pension and profit-sharing funds (Barrickman and Chagares, 1995). It is thought by some that this legislation will expand lenders' opportunities to extend credit to small businesses, enhance their fee income through loan sales and the issuance of securities, and transfer risks from their balance sheets to security holders (Miller, 1994).

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[11]A telephone conversation with Mr. Ron Feldman at the Federal Reserve Bank of Minneapolis on July 24, 1996 updated this information. Feldman maintains that the main points made in his article are still valid and that the development of the secondary market for small business loans is still sluggish.

[12]The Small Business Loan Securitization and Secondary Market Enhancement Act of 1994 was passed as Title II (Small Business Capital Formation) of the "Riegle Community Development and Regulatory Improvement Act of 1994."

[13]"Recourse" refers to the right to collect from the endorser or other guarantor of a loan if the borrower fails to meet the obligation. Recourse debt financing is a transaction in which the lender holds the borrower liable for the financial obligations incurred. This is a requirement if the underlying collateral -- equipment, land, building, or securities -- is not sufficient for the loan.

A third important impetus to small-business loan securitization is the increasing competition between commercial banks and nonbank financial institutions for small-business accounts. According to Barrickman and Chagares (1995), commercial banks' strongest competitors are nonbank financial institutions, which include mutual funds, pension funds, securities and brokage firms, insurance companies, commercial finance companies and factors, and leasing companies. Because securitization benefits both banks and nonbank financial institutions, the competition among these institutions is becoming a driving force for small-business loan securitization.

The fourth, and most recent development is the newly passed small-business tax bill, which includes provisions authorizing the establishment of Financial Asset Securitization Investment Trusts (FASITs). By offering a new pass-through vehicle for asset-backed securities, FASITs are intended to make it easier for banks and other lenders to transform many types of debt into packages of securities that can be sold to investors. Like the 1986 Tax Act, which has successfully facilitated mortgage securitization, FASITs are expected to foster the securitization of other types of loans. FASITs, which will take effect in September 1997, will not be themselves taxable, but will pass income through to be taxed at the security-holder level. This simplified tax structure is expected to make more money available for various kinds of lending, including small-business loans (*Wall Street Journal*, August 21, 1996; Susswein, 1996).

C. Market Segmentation

The small-business lending market is heterogeneous, reflecting the underlying diversity of firms, because small companies differ from one another in terms of size and growth phases. Only very large banks can have both the industry-wide expertise and other in-house resources to successfully serve all segments of the market. Therefore, market segmentation could be advantageous to most lenders that develop specialty services in a particular market niche (segment). Having such a niche may shield lenders from increased competition. For example, focusing on small business' life cycles may be a good stratification strategy, because small-business borrowers' needs for financial products and services vary according to their stage in the life cycle (Barrickman and Chagares, 1995). Besides, specialization would give lenders a better understanding of their clients' industries, thus addressing a major complaint by small-business borrowers (discussed previously in section III. D).

A 1995 survey of small-business lending found that many banks segment the market according to several characteristics, including aggregate loan totals, size of the deal, size of the management team, financial expertise, location, specialized industry, complexity of products, revenue, relationship profitability, Standard Industrial Classification code, and credit needs (Robert Morris Associates, 1995).[14]

D. Managing the Environmental Risk[15]

To manage environmental risk in commercial lending, more and more lenders have added an environmental component to their lending policy and procedures. As a recent SBA study pointed out, many large banks have set up separate divisions staffed with environmental professionals to develop and manage lending standards, in an attempt to minimize the

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[14]The survey was conducted by Robert Morris Associates in association with Financial Institutions Consulting, Inc. The survey respondents included 31 of the 50 largest small-business lenders in the U.S.

[15]Important changes in laws governing the 1980 superfund and petroleum underground storage tanks occurred after this paper was completed, and thus are not reflected in the text. On September 30, 1996, the Congress and the White House signed into law the Asset Conservation, Lender Liability, and Deposit Insurance Protection Act of 1996, which was included in an omnibus appropriation bill. The new law will provide guidance for secured parties and fiduciaries in avoiding liability under the federal superfund law and under one section of the Resource Conservation and Recovery Act dealing with petroleum underground storage tanks. The changes to the law reinstate a 1992 EPA rule on the liability exemption of secured parties under superfund, overturning a 1994 court ruling on the issue. The clarification of secured-party and fiduciary liability under certain federal statutes has a very real impact on small businesses, farms, "brownfield" redevelopment projects, and environmental cleanups across the country, and could be particularly helpful for small-business lending (see Bureau of National Affairs, Inc., *Daily Environment Report*, no.193, October 4, 1996, A4-A6).

environmental risk. However, other lenders have adopted an informal policy of refusing loans to certain kinds of businesses--for example, gas stations, metal finishers, and chemical companies--that are especially problematic (U.S. SBA, 1994). The Second Annual Financial Institution Environmental Survey revealed that all the institutions polled either have a formal written environmental policy (88.5%) or are developing one (11.5%), and that nearly three-fourths of the respondents have a designated environmental risk manager or policy coordinator on their staff (Bennett, 1994).[16] Another study, conducted by the U.S. EPA's Region 9 Environmental Finance Center found that large banks tend to staff their environmental affairs departments with employees who have experience in environmental engineering and regulatory compliance, while medium- and small-size banks tend to staff environmental positions with employees from traditional banking backgrounds, such as commercial and real estate lending or appraisal (Environmental Finance Center -- Region 9, 1995).[17]

In order to *manage* the environmental risk rather than *avoid* it, lenders must understand the differences among various environmental hazards and determine acceptable levels of risk. Lenders who can discern these differences benefit by adding otherwise good loans to their portfolios and can maintain valued customer relationships. Many large lending institutions are becoming environmentally sophisticated, and virtually every national insurance and pension fund lender has staff specifically assigned to evaluate environmental risk (Feeney,

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[16]The survey, conducted by Dun & Bradstreet Information Services and Environmental Data Resources, Inc. in June 1994, included more than 80 lending and trust institutions that represented a broad cross-section of the industry, both geographically and by size. Survey respondents fell into the following asset categories: under $500 million (31.2%), $500 million to $10 billion (29.5%), $11 billion to $50 billion (31.2%), greater than $50 billion (8.2%).

[17]The study was conducted by EFC 9 at California State University at Hayward in the Spring of 1995. A total of 92 bankers from 77 banks participated in one-on-one telephone discussions and another 8 bankers joined in-person open group discussions. These banks were selected from 19 states that had either a voluntary or required stipulation from their state EPA to develop and file a Facility Plan.

1995). In a similar vein, the Maryland Department of Environment's Credit Assistance Pilot Project found that banks are not universally "scared off" by potential liabilities associated with environmental lending; some are able to determine which industries are likely to give rise to environmental problems (U.S. EPA, 1995).

In still another study, staff from the Northeast Waste Management Officials' Association (NEWMOA) found that the banking community and insurance industries, both of which have shied away from lending and writing policies on certain environmental risks for much of the past 15 years, have started to change. This shift is based on a recognition that it is possible to differentiate between types of environmental risk and thereby gain a competitive advantage in the marketplace. As an example, NEWMOA cited Barnett Banks in Florida, which has created a niche (lending for the removal and replacement of leaking underground storage tanks) by developing an ability to evaluate and price the risks (Northeast Waste Management Officials' Association, 1996).

Chamberlin (1995) has proposed ten rules for developing an environmental risk program that complies with the Federal Deposit Insurance Corporation guidelines:

- Create an environmental risk-assessment committee with representatives from each department, including senior management;
- Define the objectives of the environmental risk program;
- Define the financial institution's appetite for risk;
- Ensure that the environmental risk program will be as consistent as possible throughout the financial institution;
- Develop an environmental risk policy that the institution can follow;
- Have experts readily available to provide consistent advice and assistance;
- Define the scope of work for environmental due diligence;
- Take a particular course of action with environmental consultants;

- Develop standard environmental provisions to be incorporated into transaction documentation; and
- Train personnel about environmental risks, liability, and the financial institution's environmental program.

V. SUMMARY AND CONCLUSIONS

Because small businesses are increasingly important to the national economy, a viable small-business lending market is critical to economic growth. Barriers to the expansion of small-business lending include high transaction costs; the inherently risky nature of lending to heterogeneous, small, and untested firms; adverse side-effects of relationship banking; unmet service expectations; lenders' perceived liability for environmental contamination; and uncertainties regarding environmental regulation. These barriers must be lowered if this important economic sector is to sustain its vigorous growth.

Changes now taking place in the small-business lending market present challenges and opportunities for both commercial lenders and small-business borrowers. The current trend is characterized by commercial lenders' re-engineering efforts, such as standardization of loan underwriting, loan securitization, market segmentation, and management of environmental risk.

Transformations in the financing industry will generate winners and losers, and a restructuring of small-business financial services market may be looming. First, innovative lenders who can re-engineer their small-business lending policy, practice, and procedures will turn challenges into opportunities, maintaining and enhancing their competitive edge. Second, while large banks may significantly expand their market share in small-business lending by taking full advantage of state-of-the-art computer technology and financial modeling techniques, small banks may succeed by becoming more specialized in serving a segment of small-business borrowers who need such customized services. Third, non-depository financial institutions may increase their ability to provide specialized financial management services, even as they expand their provision of commercial credit to small businesses.

These changes are expected to improve small businesses' access to commercial credit, possibly at a lower cost. In particular, commercial credit may become more available for small businesses seeking to make capital investments that have pollution prevention merits. However, this outcome depends on the banking industry's successful completion of innovations centered on the standardization of loan underwriting and administration, loan securitization, and the development of environmental lending expertise. For example, lenders' difficulty in valuing collateral, which has been a significant barrier to capital access for many polluting small companies, will be somewhat lessened with the use of credit-scoring models. At the same time, the development of lenders' expertise on environmental lending--essentially the ability to price various environmental risks--and their understanding of the whole array of benefits from pollution prevention will promote positive changes in environmental lending. Finally, the possibility of public involvement in the form of public-private partnerships may help increase banks' environmental lending activities and leverage more private capital for small business' investments in pollution prevention activities.[18]

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[18] This is one of the financing options presented in a forthcoming study, *Inventory and Evaluation of Existing Pollution Prevention Financing Programs for Small Businesses*, prepared for the United States Environmental Protection Agency by the Great Lakes Environmental Finance Center.

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